

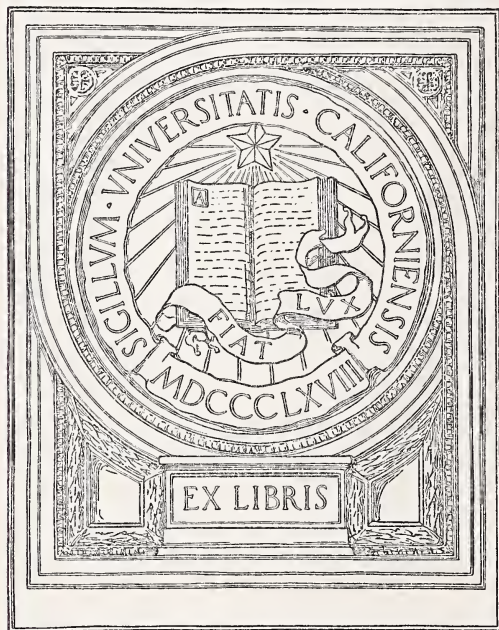
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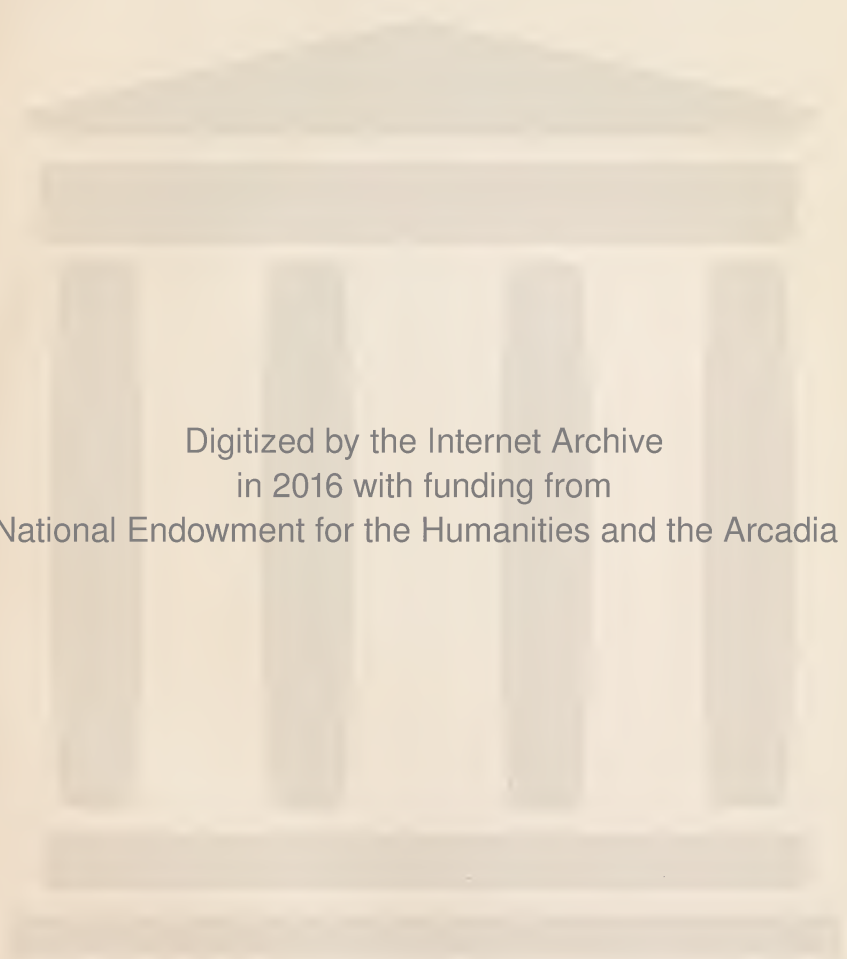


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RICHARD COLE NEWTON, A. B., (Harv.) M. D. (Col.)

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MDCCCCV.

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The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

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It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

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## ANNOUNCEMENT BY THE COMMITTEE ON PUBLICATION.

The Medical Society of New Jersey at its last annual meeting favorably considered the idea of journalizing its transactions, but left its final decision with its Board of Trustees, giving them the power to do so this year, if in their judgment it was deemed wise. The board, at a meeting held July 6, 1904, unanimously decided in favor of issuing a monthly journal to be called "The Journal of the Medical Society of New Jersey," and the management and control of the same was placed in the hands of the Publication Committee, according to the provisions of the constitution and by-laws of the Society.

The committee, in accepting this great responsibility, are pleased to inform and congratulate the members of the Society and the profession at large, that the Board of Trus-

tees at the same meeting appointed Dr. Richard C. Newton, of Montclair, editor of the JOURNAL. The Publication Committee bespeak for him the active co-operation of the members of the State Society and especially of its officers and committees and the secretaries of our County Societies, as it is his and our desire to make the JOURNAL not merely a substitute for the annual volume of transactions of the Society, but also an up-to-date, bright, scientific medical journal, that shall prove helpful to the members of the profession in their practical work and scientific advancement.

The committee also commends this JOURNAL to the favorable consideration of advertisers. Realizing that our readers compose almost the entire body of regular practitioners between the two great centres of medical

educational institutions—New York and Philadelphia—we submit that the JOURNAL will be an advertising medium of more than ordinary value. We distinctly announce, however, that advertisements of a non-ethical character will not be admitted. All communications referring to business management, subscriptions, advertising, etc., should be sent to Dr. William J. Chandler, Chairman of the Publication Committee, South Orange, N. J. All papers on medical subjects, all news items for insertion in the JOURNAL, and all books for review, should be sent to Dr. R. C. Newton, Montclair, N. J.

WILLIAM J. CHANDLER,  
*Chairman.*  
DAVID C. ENGLISH,  
HENRY W. ELMER,  
*Publication Committee.*

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### PRESIDENT'S ADDRESS.

BY HENRY MITCHELL, M. D.,  
ASBURY PARK, N. J.

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### PREVENTIVE MEDICINE IN NEW JERSEY.

*Members of the Medical Society of New Jersey:*

Before presenting the subject which I wish at this time to bring to your attention, I desire to express, in some degree, my appreciation of the honor which election to the presidency of the Medical Society of New Jersey confers. The names of the distinguished men by whom I have been preceded will ever be held in highest esteem, not alone because of their professional attainments, but also because of their rectitude, their learning, their public spirit and their patriotism. Since the establishment of this Society, July 23, 1766, its career has justified the devotion to its welfare which has been shown by its members through the 138 years of its existence, and the records of its transactions show that it has always stood for progress in combating disease,

and for ethical relations among practitioners of medicine; and its service to mankind has been of the highest value and quite beyond estimate.

Let us pause for a moment to speak with respectful regret the names of those of our associates who have passed out of earthly life during the year just closing:

A. W. Taylor, our first vice-president; P. C. Barker, president, 1884; William Rankin, George W. Rolerfort, David L. Wallace, V. M. D. Marcy, William H. Ireland, S. H. Reed, Cornelius Shepherd, W. H. McGee, C. F. W. Meyers, Ephriam Bate-

man. Before taking up the subject of my address let me call attention to one point connected with the effort heretofore made to provide a new constitution and by-laws for the purpose of continuing the Medical Society of New Jersey in harmonious relation with the representative societies of other States and with the American Medical Association. The work already done requires careful examination, and the adoption of the necessary corrections and additions should be undertaken. Laborious review has been made by the committee appointed one year ago for that duty, and their report, which has been printed and distributed, sets forth the entire document in the form which the committee believes will meet the requirements of the resolutions, under the authority of which they engaged in the work of revision. Some doubt has arisen concerning the advisability of adopting in full the somewhat complicated methods of government for the Medical Society of New Jersey which is provided for in the new constitution, and opportunity still remains for the submission of any propositions for the modification of these regulations which members may desire to present for consideration. The purpose which has led to the reorganization of the National, State and County medical societies is the desire to bring all lawfully authorized members of the profession into closer scientific, business and social relations, and the general feat-



ures of the movement have met with almost universal approval. Questions of detail relating to the adjustment of the general principles of the innovation only remain to be arranged.

The subject which I wish to present to you this evening relates to the application of modern scientific medicine to the prevention of disease and the promotion of the public health, and, more particularly, to the relation which the State Medical Society and the members of the medical profession have held to the rise, development and progress of public hygiene in New Jersey.

Justification for the presentation of this topic on this occasion appears to be sufficient when it is remembered that all of the early efforts to establish effectual barriers against the spread of the dangerous infectious diseases, not only in New Jersey, but throughout all civilized lands, were inaugurated and advocated by physicians, and when we recall the history of this Society as preserved in the transactions, showing the active and often initiatory relations which it has borne toward every step in advance which has been directed to the promotion of the public health, we can rightfully claim for our Society, and for our predecessors in the practice of medicine, the honor of having always been ready to receive, with a noble and generous philanthropy, and with absence of all selfish promptings, the principles which underlie the science and art of hygiene, and to apply these truths for the benefit of humanity.

Medicine is not limited to the field of research and practice relating to the care of disease after destructive processes have appeared in individuals, but it extends its helping hand to communities, to States and to nations in restricting the prevalence of pestilences and in the removal and avoidance of unhealthful conditions which were, until very recent years, generally regarded as unavoidable afflictions, and were everywhere accepted as insurmountable hindrances to human prosperity, happiness and longevity. Two centuries ago the mortality

in London was 80 per 1,000, and public sanitation was not practiced in England until 1848. Earlier progress was prevented by ignorance, prejudice and political unrest; neither had statesmen yet learned that it is the duty of the government to safeguard the public health.<sup>1</sup>

The announcement of the protective influence afforded by vaccination against small-pox was received by physicians with hopeful expectation that similar prophylactic measures would soon become available as a defence against other maladies, but many years elapsed before the value of diphtheria antitoxin was demonstrated. During this period, notwithstanding the complete mastery over small-pox which was obtained wherever vaccination and re-vaccination was intelligently practiced, blind opposition against this grand achievement was continuously made by the bigoted and by the ignorant.

In restricting the ravages of infectious diseases among all classes it has often been pointed out that the aims of physicians are peculiarly public-spirited and beneficent, and although their efforts are usually antagonized by "antis" of many sorts, and by faddists of many faiths, the exertions of medical men have never relaxed, and every proved scientific measure, having for its purpose the advancement of public hygiene, has been enthusiastically accepted by the profession, and its application for the amelioration of unhealthful conditions has been speedily undertaken.

In New Jersey the foundation for progress in guarding the public health was laid by the State Medical Society when it began the agitation which resulted in the adoption by the Legislature of a permanent method for the collection and preservation of records of births, marriages and deaths. In 1866 the Legislature appointed a State Sanitary Commission consisting of Drs. Coleman, Cooper, Ryerson, Nichols and Hunt, all members of this Society. The report of this commission recommended the enactment of a comprehensive act for the protec-

tion of the public health, but no further action was taken by the Legislature until 1874, when, again in response to requests made by this Society, an act was passed creating a Public Health Commission, composed of six members, five of whom were members of this Society. The report of the inquiries and investigations made by this commission drew attention to the saving of life and prevention of sickness which would be effected in New Jersey by the application of measures for isolating persons affected with the dangerous infectious diseases; for preventing pollution of public water supplies; for systematic removal and disposal of waste substances; for preventing the sale of unwholesome food; for the abatement of nuisances, and for such other public service as it should, from time to time, be found appropriate to assign, by legislative enactment, to a department of public health, and in 1877, as a direct consequence of the representations made by this Society, an act was passed establishing State and local boards of health.

Very little progress had been made up to that time in the United States toward applying the principles of hygiene to the protection of the public health, and the laws of the Federal government and of various States relating to this subject reflected the indifference of the public mind concerning these questions. "Until the close of the eighteenth century, and during several decades in the nineteenth, almost the only public health legislation which was enacted in the American Union consisted in a few statutes relating to small-pox, since this pestilence was scarcely ever absent for many years at a time from any city, town or village, till after the general introduction of vaccination."<sup>2</sup>

For the first few years after its organization the New Jersey State Board of Health devoted its efforts mainly to (1) the education of the public concerning the value of sanitation; (2) to secure the organization of local boards of health; (3) to secure greater uniformity in the collection of vital statistics; (4) to investigations concerning the

causes of unusual outbreaks of sickness; (5) to secure improvement in the hygienic management of State and municipal institutions. The act approved May 4, 1886, placed upon the State Board of Health certain executive duties relating to the prevention of the spread of infectious diseases among animals, and subsequent acts of the Legislature have added numerous lines of inquiry, investigation and executive action.

The history of the rise of the movement for the protection of the public health in New Jersey shows that, at every step in this great work, the members of this Society were the instruments through which organized methods for defence against the spread of preventable diseases have been established, and the results, as indicated by the diminished death rates among certain preventable diseases, promise to surpass the expectations of the most enthusiastic pioneer in this field of labor.

In turning now to more recent events, covering the period during which increasing public interest has been shown in sanitary precautions, more rapid progress in the development of the art of State and municipal hygiene will be noted. To prevent the spread of the dangerous infectious diseases has been the most important service in which the State Board of Health has engaged, and in large part this service has been rendered in conjunction with local boards of health, by pointing out the most efficient means by which the distribution of these affections may be restricted, and in advising the officers and appointees of local boards concerning the details of their duties, especially in cases where outbreaks of preventable diseases have occurred. The circulars issued by the board have contained definite instructions for dealing with infected persons and premises, and the board has at all times responded to calls for assistance by sending experienced and capable advisers to personally confer with the local sanitary authorities whenever perplexing questions have arisen. In the course of each successive year many problems relating to local sanitary administration have been presented,



and frequent revisions have been made in the published recommendations sent out to local boards of health. It is quite as true within the domain of preventive medicine as it is in curative medicine, that he who learned the art a decade or more ago, and who has not kept in touch with the advances in knowledge and practice, which have been announced almost daily in recent years, is an obstacle to his more progressive fellow-practitioners, and is liable also to sometimes prove a source of injury and damage to those whom he seeks to serve. For example the search for the cause of typhoid fever is not now limited to inquiries and investigations directed to the dooryard well, the milk supply, unwashed vegetables and shell fish, but it is extended to the household fly as a carrier of the infectious bacteria from some nearby mass of excreta to the food of the victim. So, too, with the purification of infected apartments, bedding, garments, etc., for notwithstanding the various opinions and greatly varying methods which are still on trial, the prevailing practice in the hands of skilled operators is in strong contrast with the methods of disinfection which were employed before knowledge of the bacterial causes of disease was acquired.

The responsibility for accuracy in the diagnosis of transmissible diseases rests upon the attending physician, and the Legislature has placed at the disposal of practitioners of medicine in New Jersey a well equipped modern hygienic laboratory, under the management of a competent director, aided by a well trained corps of assistants. This institution was first established through the public spirit and generosity of Charles E. Green, of the city of Trenton, now deceased, who proceeded early in the year 1895, after the Legislature had failed to take action in response to the recommendations of the State Board of Health, to erect a laboratory building and place it, rent free, at the disposal of the board for diagnostic purposes. Funds from private sources enabled the board to begin bacteriological examinations of specimens, and it was not

until 1897 that an appropriation was made by the State for continuing this work. Since the opening of the laboratory the examination of specimens forwarded by physicians has proceeded without interruption. At the beginning of this work it was found that an order of the Postmaster General prohibited transmission through the mails of all diseased tissues, and to New Jersey is due the credit for successfully demonstrating to the satisfaction of the postal officials the safety of such transmission, when the specimens are properly encased, and a new order, dated February 5, 1896, was issued permitting the use of the mails for this purpose, and thereby making possible the excellent laboratory service which we now enjoy. This regulation has recently been still further modified and the mails are now freely used for sending specimens to State and municipal laboratories in many parts of the Union. During the year ending October 1, 1903, 5,559 specimens were received in the laboratory for examination and diagnosis, and 177 repositories for mailing cases for sending specimens to the laboratory are regularly maintained throughout the State. Many physicians regard a clinical diagnosis in suspected diphtheria as too unreliable, and consider unwarrantable the treatment of a sore throat for twenty-four hours without taking a culture and sending it to the laboratory for diagnosis. Aside from its inestimable value to physicians, laboratory diagnosis has proved to be exceedingly useful to local health officers, by guiding them in the isolation of infected persons, particularly in cases of diphtheria.

As a further aid to local health boards, and to enable them to isolate promptly all cases of the dangerous preventable affections, the Legislature has passed an act which requires notification of certain infectious diseases, and numerous demonstrations of the usefulness of the information thus furnished, have been seen in every populous district in the State. With early knowledge of the first case of any of these

diseases, either by a report from the laboratory or from notice sent by the attending physician, the health board is in position to isolate the patient and the necessary nurses and attendants, and to place under daily observation any persons who have been exposed to the infection, thus cutting off the avenues through which the infectious agents are usually conveyed. Isolation, wisely and rigidly applied, is the most reliable measure for restricting the spread of communicable affections, never forgetting vaccination, and as it can rarely be carried out satisfactorily in built-up districts in the home of the patient, hospital accommodation for cases of an infectious character is a most desirable feature in the equipment of every municipality.

The act approved March 23, 1900, provides that every city may erect isolation hospitals to which all cases of infectious diseases which may occur anywhere within the county in which the city is located, may be sent upon the payment, by the patient or by the municipal authorities of the sanitary district from which the patient comes, of the cost of the necessary care and treatment, and as the welfare of the patient in such a hospital, conducted under official control, will usually prove to be far better conserved than when the treatment is undertaken in private dwellings, and inasmuch as the cost for the service rendered will be moderate, it is exceedingly desirable that this co-operative procedure for the care of persons suffering from preventable diseases having a high mortality rate, should be adopted in every county. Under the authority contained in this statute attractive and comfortable hospitals for communicable diseases can be provided for every locality, and the "pest house" could then be banished from the State. This terrifying appellation is deservedly applied to numerous structures which are at present widely distributed, and in many instances they constitute a disgraceful blot upon our civilization. The infectious diseases hospital should be a cheerful hotel to which persons who are accustomed to the comforts of well

appointed houses may go without aversion. These institutions should be pleasantly situated, not too distant from the base of supplies, with a liberal allowance of land within the enclosing fence, and should be provided with water under pressure; have good drainage, and be connected by telephone with the health office of the city, under the supervision of which they are conducted. The food, fuel, remedies and all other supplies should be furnished by the city, and the medical attendance and nursing should be rendered by persons employed by the city board of health, for if the patient is permitted to select his own attendants the discipline of the hospital is constantly jeopardized, and the erratic views and practice of some practitioner of one of the present day anti-scientific fads, would be liable to imperil the public health and bring the entire hospital system into disrepute. As before stated the opinion is gaining ground that in almost all cases infectious diseases are distributed from the patient himself, and that absolute isolation of the infected individual will therefore quickly and effectually arrest the spread of these affections, and one of the accepted principles of enlightened management of outbreaks of infectious diseases assumes that no person who is not ill, and who is not needed as a nurse or attendant, shall be deprived of his liberty, but that all "contacts," or persons who have been exposed to the infection, shall be given a bath and clean garments, and then be permitted to engage in their usual occupations without restraint, except that a daily medical inspection, including the taking of the temperature, of all such persons shall be made during the incubation period of the disease.

Concerning the disinfection of apartments, it is interesting to observe the wholesale manner in which commercialism has taken hold of this department of sanitary work, and to note the extent to which manufacturers have succeeded in stocking up boards of health with useless and expensive apparatus. On the view already referred to, that it is the patient himself who is the principal source from which infection is spread,



the so-called disinfection of dwellings is stripped of much of the importance which it has in the past been popularly believed to be entitled to, and extravagant assertions relating to the value of proprietary apparatus for house disinfection by the disengagement of gaseous agents may be rejected without investigation. It is prudent to distrust the efficiency of aerial disinfection altogether, and to advocate house cleaning as a substitute, for no reliance can safely be placed upon the claim that any gaseous disinfectant will reach and destroy all pathogenic bacteria in infected dwellings.

Let us now for a moment turn to the medical inspection of schools, which was first authorized in New Jersey by the enactment of section 255 of chapter 96 of the laws of 1900, and which, like almost every other statute of this State having for its purpose the promotion of the public health, emanated from members of this Society. The requirements of this act do not become operative in any school district until the board of education shall appoint one or more inspectors, but when such action is taken, the provisions of the act at once take effect, and the inspector is thenceforth guided by the law in the performance of his official duties. He visits the schools to which he is assigned at stated times, usually at ten A. M. each day, and examines for diagnosis any pupil who is suspected by a teacher to be ill, and makes suitable disposition of each case which is presented. If any child is found to be sick, or incapacitated for school duties, he is referred to the school superintendent with a recommendation that he shall be sent home, and that his parents or guardian shall provide the necessary medical attendance. The law further provides that the inspector shall, at least once in each school year, examine every pupil to learn whether any physical defect exists, and keep a record from year to year of the growth and development of each pupil. The medical inspector is also required to instruct teachers concerning the methods to be employed to detect the first signs of any of the infectious diseases. The

act defines the relations between boards of health and boards of education, so far as the closing of public schools is concerned, and places responsibility and authority in regard to this action entirely in the hands of the school board. Progress in the adoption by local boards of education of the provisions of this act has not been as rapid as it should be, but if the members of this Society will take action by advocating the appointment of one or more medical inspectors in their respective school districts, there will be little delay in extending the benefits of medical inspections of the public schools to every portion of the State, for the influence upon their neighbors which the opinions of medical men possess, not alone concerning the treatment of disease, but on all matters in relation to which their special knowledge qualifies them to give advice, is universally conceded.

Coming now to still more recent events, let us consider some of the results which promise to attend the enforcement of the act approved April 8, 1903, and which is intended to improve the local sanitary inspection service. This act provides that after January 1, 1905, every appointee of local boards of health, except persons performing merely clerical duties, shall, as a prerequisite to appointment, obtain a license to serve as health officer or inspector from the State sanitary examiners. The members of the board of examiners are appointed by the State Board of Health, and their term of service continues until their successors may be appointed. By the establishment of this system for testing the fitness of sanitary officers it is believed that a complete revolution will be effected in the course of a few years in the personnel of those who are directly intrusted with the enforcement of the laws and ordinances which have been enacted for the protection and promotion of the public health. These officers will be required, under the new regime, to become acquainted with the accepted principles of municipal hygiene, and it will no longer be necessary to strive to apply these principles

through the agency of persons who have no knowledge of the art which they endeavor to practice. There now remains to be established a school of instruction for those who desire to take these examinations, but until instruction shall be provided the applicants for license will of necessity be obliged to prepare themselves for examination mainly by reading, and they are without the benefit of the lectures and demonstrations which are essential to a satisfactory training for the service which they will be expected to render. Doubtless the proceedings under this act will be closely watched with great interest, not only in New Jersey but also in other States, for with each succeeding year the public demand for more skillful service in efforts to prevent the spread of infectious diseases and in the enforcement of local ordinances has become more and more emphatic, and in some localities the inefficiency of the health officer has proved exceedingly trying to the patience of well informed residents, and numberless opportunities to promote the public health have been lost because of the unfamiliarity of the local sanitary officer with the methods which have been generally approved and which are relied upon by our most progressive health boards. The necessity for the inauguration of a movement for securing the service of sanitary inspectors who shall be trained for the work in which they are to engage, has long been a serious question in every State of the Union, where advanced measures for the protection of the public health have been undertaken, and New Jersey is fortunate enough to be on record as the first State in which a practical attempt was made to introduce a system for testing the fitness of sanitary officials.

To bring this review of the instrumentalities employed in the sanitary administration in New Jersey within the limits permissible on this occasion it becomes necessary to refer only very briefly to the measures which remain to be mentioned.

Railway hygiene has received some attention at the hands of the Legislature, and

within the limits of the authority which has been given, the State Board of Health exercises supervision over all lines of passenger transportation. Special medical inspectors have been appointed by the board, and instruction for their guidance in dealing with cases of the dangerous infectious diseases which have been discovered upon trains or boats have been issued. Inspections have been made, and are being continued, to learn the sources of the drinking water supplied to passengers in railroad stations and on trains, and all suspected waters employed for such uses are examined periodically in the State laboratory of hygiene, both chemically and bacteriologically.

An act was passed by the Legislature April 14, 1903, prohibiting spitting upon the floors of passenger cars, and the attention of all lines of railway in the State has been called to the requirements of this law, but thus far no prosecutions for the penalty have been reported, although every traveller constantly sees violations of its requirements.

The ports and harbors of New Jersey are nearly all effectually guarded by the maritime quarantine service which is maintained in Delaware Bay and in New York Bay, but a few minor points are not protected by these great gateways of commerce, and for the management of any infectious diseases which may enter at the ports an act has been passed, placing the responsibility for the exercise of proper discretion in the care of these cases upon the State Board of Health.

The protection of public water supplies in New Jersey has been provided for by the act approved March 17, 1899, and the State Board of Health has been entrusted with the execution of the law. Periodical inspections of water sheds and of the borders of streams, the waters of which are used for municipal supplies, have been made in the case of nearly all of the surface supplies, and many sources of contamination have been removed. No department of the public sanitary work has proved to be of greater value to the citizens of the State than the



service performed under the provisions of this act, and as the population of the State increases and the risk of pollution of surface sources becomes greater, the inspection of streams, and prevention of violations of the law prohibiting defilement of these waters, will correspondingly increase in value, for the records already on file show that there are very few streams in the State from which water can even now be safely taken for domestic uses without purification. The bacteriological examinations of drinking water, which are made in the State laboratory of hygiene, are designed solely to detect the presence of the colon bacillus, and the results of this inquiry are considered useful when they confirm indications given by inspections of the sources of supply and by chemical analysis. Negative results are discounted if inspection shows that the sources of the water are subject to pollution. Numerous legal questions have arisen relating to methods of procedure in securing removal of sources of contamination of water supplies, but the suits at law thus far found necessary have all been decided in favor of the State. Filtering plants for purifying public water supplies in New Jersey have been introduced in twelve localities and in several towns this method of treating the water is under consideration.

Several acts of the Legislature have been passed for the purpose of preventing the spread of communicable diseases of animals, and all are enforced by the State Board of Health except those which relate to bovine tuberculosis. The action taken in 1883 and 1884 for the eradication of the infection of pleuro-pneumonia stands as a monument to the executive ability and discretion of the persons who constituted the board during the outbreak of this pestilence in New Jersey. Since that period the most serious preventable diseases which have occurred among animals have been due to the unrestricted importation of glandered horses from New York City, where the disease has prevailed to an unusual extent during the past two

years, and to the occasional recurrence of anthrax in the southwestern counties of the State, each epidemic of this latter disease beginning among cattle pastured on marsh lands lying along the Delaware river. The source of the infection of anthrax in this locality has not been positively traced, but there seems to be good ground for the opinion that in some manner it proceeds from the tanneries situated on the opposite side of the river, near Wilmington, in the State of Delaware. This disease has yielded, whenever it has appeared, to immunizing inoculations with attenuated anthrax virus. These so-called vaccinations have been performed at the expense of the State, under the direction of the State Board of Health. It is interesting to note in this connection that no compensation is allowed by the laws to owners whose infected animals are destroyed to prevent the spread of glanders, anthrax and pleuro-pneumonia. This attitude on part of the Legislature is justified because the existence of an infectious disease in an animal is regarded as a nuisance, and is dealt with as the law deals with other property which becomes a nuisance, for example, a building which is torn down by the authorities to prevent the spread of a conflagration. The owner can obtain no restitution from the government, either local or general, for the value of property thus destroyed, because its destruction is found to be necessary to prevent further loss of other property, or possibly loss of human life. An exception has been made to this policy in the case of bovine tuberculosis, and a certain fixed sum is paid by the State for every diseased animal which is killed by order of those who are appointed to supervise this work.

In 1901 the Legislature passed a general act to prevent the sale of adulterated food and drugs, repealing all previous acts relating to this subject and placing the enforcement of the law in the hands of the State Board of Health. The adulteration of food, as at present conducted by producers, manufacturers and dealers, consists very largely

in the substitution of cheaper materials for those nominally or properly composing the article, and poisonous additions are very rarely found. In recent years the methods of falsification have become more numerous, more complex and more difficult of detection outside of the laboratory, and it has been found that in States where food inspection has been actively conducted, and where numerous arrests and convictions have occurred, sophisticated goods have been driven across the borders, into localities where no provision has been made against this evil. It has been estimated that efficient inspection of food, under laws providing deterrent penalties, saves to the consumer one-fourth of the nutritious elements of his daily supply, and while food adulteration is conducted solely for the purpose of cheating the pocketbook of the buyer, yet it does in fact, also diminish the nutrition of the consumer and impair his strength and health. By far the most prevalent food adulteration in New Jersey, during the past four or five years, has been the addition of preservatives, and all classes of perishable foods have been thus treated at the hands of unscrupulous producers and dealers. After much agitation relating to the injurious effects of the more common antiseptics, when added to foods, there is now but little disagreement among physiological chemists and hygienists concerning the unhealthful influences which attend the continued ingestion of even small quantities of formaldehyde, boric acid, salicylic acid and certain other chemical substances which are capable of retarding fermentation, and the addition of these articles cannot be justified on any plea. In practice it has been found that fresh meat can be preserved for weeks by low temperatures alone, and in the case of milk, if cleanly methods are employed in its collection and storage, it will not undergo decomposition for at least forty-eight hours, which is quite long enough to permit of its being distributed to distant points. It is believed that the new law will afford better protection against the sale of diseased meat than

has heretofore been possible, and that by its energetic enforcement the further shipment of tuberculous beef to market will be stopped.

The inspection of drugs which has been conducted during the past two years has been followed by a very satisfactory improvement in the quality of certain articles dispensed in prescriptions, and while the work has been bitterly opposed by cut-rate, careless and dishonest dealers, the reputable and reliable pharmacists of the State have cordially supported the convictions which have been secured in cases where the willful sale of adulterated goods has been detected. "The competent druggist is licensed because he is supposed to know when the drugs he offers are right, and to withhold them from the public when they are wrong. The practicing pharmacist is obliged to produce evidence of a special education and training in pharmaceutic technique and in the knowledge of drugs. His proficiency having been determined by legally constituted authority, he is granted a license involving rights not enjoyed by others as to traffic in drugs. This restriction to certain men of the right to sell drugs carries with it the moral responsibility that they shall guarantee the quality of the drugs sold. The physician relies on the drug to bring about certain physiologic effects, and human life depends upon its having its normal efficiency. Hence the physician looks to the pharmacist for a guarantee that every drug dispensed is possessed of its full potency.

The plea often made by the retail pharmacist, that he has relied on the manufacturer or jobber and is ignorant of the actual quality of the drugs dispensed, is invalid and should in no case shield him from legal penalty or public contumely. In cases where he is called to account for the inertness or unaccountable behavior of a given drug, he may, of course, seek satisfaction from the manufacturer, whose dupe he has been. The licensed druggist should, however, be held to strict responsibility for the quality of every drug dispensed, and the



sale of drugs should be restricted to qualified men, as is already supposed to be the case."<sup>3</sup>

In closing this review of the relations of the Medical Society of New Jersey to the great modern movement for the prevention of diseases let me quote the words of Herbert Spencer, who has said: "That which is beneficial to the community as a whole, it will become the private interest of some part of the community to accomplish," and thus we find that the members of this Society, influenced by knowledge acquired in the study and practice of medicine, and realizing the vast benefits to humanity, which attend the regular employment of preventive measures against the spread of disease, have secured the establishment of a public health service in New Jersey.

It has recently been said that "The medical profession to-day stands foremost among the learned sciences. It is, in fact, more than half divine in its practice, if not in its pretension, for do not its disciples follow in the footsteps of the Nazarene—of the Redeemer of the world, himself? In a sense it is surrounded with a halo of sentiment, which easily places it upon a pinnacle far above the reach of, and I may say, the understanding, of laymen—from which those who have been admitted into the magic circle of its brotherhood, may calmly and with pardonable pride, look down upon a baser world of the ignorant, the ignoble, and the sordid. It is their privilege, which no other profession enjoys—of administering to mankind, of comforting the heavily laden, of healing the hurts of fate, \* \* \* of soothing the paths of pain leading through the portals of death, which groaning humanity must tread alone in its dreary journey to the grave."<sup>4</sup>

(1.) Sanitary Record, Jan. 21, 1904.

(2.) Pub. Hygiene in the U. S., by S. W. Abbott, M. D., 1900.

(3.) Southern Drug Journal, May, 1902.

(4.) American Medicine, Nov. 14, 1903.

## CORRESPONDENCE.

*To the Editor of the Journal of the Medical Society of New Jersey.*

SIR—If there is any name which more than another should receive mention in the first issue of the Journal of the Medical Society of New Jersey, it is that of our most esteemed fellow, Dr. H. Genet Taylor, of Camden. In his presidential address (June 1889), after noticing with regret that but little interest was taken in the annual "transactions" and that but few original papers appeared therein, and ascribing this defect not to want of material, but to the fact that a tardy annual publication offered but little incentive to writers and to the workers in the field of original research, he said:

"The American Medical Association for years published its transactions as an annual report, but, in 1880, they were ordered to be journalized, and are now issued in a weekly form, so that to-day the members of the Association are placed in direct possession of valuable papers on almost every medical and scientific subject, and, coming in pamphlet form and issued weekly, they are read by hundreds of our medical brethren, whereas under the old system but few would be the wiser of the contents of the annual publication.

"The *American Medical Journal* depends in a great measure upon the State Medical Societies for material and support, and I do not see why this Society should not be benefited by its own medical talent, and be the *first state organization to adopt this change in the publication of its proceedings*. This departure from the old system of publication would place in the possession of every member information that would necessarily result in much good to the profession throughout the state, and, I am firmly convinced, would outweigh any objection that can be urged on account of the additional expense that might be incurred."

In these words we see that long before any state medical organization had journalized its transactions, Dr. Taylor had perceived and called attention to the advantages of such a course. It seems strange that these thoughts could have lain dormant so long. And now the actual appearance of the "JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY" must afford a commendable pride and encouragement to the heart of the pioneer of this reform, even though it has taken *fifteen years* for the majority of the Society to see the wisdom of his ideas.

Let us hope that the mantle of discernment and wisdom will continue in the management of our journal.

W. J. C.

The Essex County Board of Freeholders awarded the contract for building the county isolation hospital at Belleville on the 11th of August. The present contracts call for an expenditure of \$155,383.00. But it is expected that forty or fifty thousand dollars more will be required to complete the building.

# OFFICIAL LIST OF FELLOWS,

OFFICERS AND MEMBERS OF THE MEDICAL  
SOCIETY OF NEW JERSEY FOR 1904.

## OFFICERS.

### PRESIDENT.

WALTER B. JOHNSON, . . . . . PATERSON.

### VICE-PRESIDENTS.

HENRY W. ELMER, . . . . . BRIDGETON.  
ALEXANDER MARCY, JR., . . . . . RIVERTON.  
EDWARD J. ILL, . . . . . NEWARK.

### CORRESPONDING SECRETARY.

E. W. HEDGES, . . . . . PLAINFIELD.

### RECORDING SECRETARY.

WILLIAM J. CHANDLER, . . . . . SOUTH ORANGE.

### TREASURER.

ARCHIBALD MERCER, . . . . . NEWARK

## FELLOWS.

All persons who shall have been, or may hereafter be President of the Society, shall rank as Fellows, and be entitled to all the privileges of delegated members. *Act of Incorporation, Sec. 1.*

The dates represent the year of election as President. Those marked thus (\*) are deceased.

*ROBERT MCKEAN . . . . .1766	*WM. D. MCKISSACK . . . . .1826	*BENJ. R. BATEMAN . . . . .1866
*WILLIAM BURNETT . . . . .1767	*ISAAC PIERSON . . . . .1827	JNO. C. JOHNSON . . . . .1867
*JOHN COCHRAN . . . . .1768	*JEPHTHA B. MUNN . . . . .1828	*THOMAS J. CORSON . . . . .1868
*NATHANIEL SCUDDER . . . . .1770	*JOHN W. CRAIG . . . . .1829	*WILLIAM PIERSON . . . . .1869
*ISAAC SMITH . . . . .1771	*AUGUSTUS R. TAYLOR . . . . .1830	*THOMAS F. CULLEN . . . . .1870
*JAMES NEWELL . . . . .1772	*THOMAS YARROW . . . . .1831	*CHARLES HASBROUCK . . . . .1871
*ABSALOM BAINBRIDGE . . . . .1773	*FITZ RANDOLPH SMITH . . . . .1832	*FRANKLIN GAUNTT . . . . .1872
*THOMAS WIGGINS . . . . .1774	*WILLIAM FORMAN . . . . .1833	*T. J. THOMASON . . . . .1873
*HEZEKIAH STITES . . . . .1775	*SAMUEL HAYES . . . . .1834	*G. H. LARISON . . . . .1874
* * * * *	*ABM. P. HAGEMAN . . . . .1835	*WM. O'GORMAN . . . . .1875
*JOHN BEATTY . . . . .1782	*HENRY VAN DERVEER . . . . .1836	*JNO. V. SCHENCK . . . . .1876
*THOMAS BARBER . . . . .1783	*LYNDON A. SMITH . . . . .1837	*HENRY R. BALDWIN . . . . .1877
*L. VAN DERVEER . . . . .1784	*BENJ. H. STRATTON . . . . .1838	*JOHN S. COOK . . . . .1878

*MOSES BLOOMFIELD .....	1785	*JABEZ G. GOBLE.....	1839	ALEX. W. ROGERS.....	1879
*WILLIAM BURNETT .....	1786	*THOMAS P. STEWART....	1840	*ALEX. N. DOUGHERTY....	1880
*JONATHAN ELMER .....	1787	*FERD. S. SCHENCK.....	1841	*LEWIS W. OAKLEY.....	1881
*JAMES STRATTON .....	1788	*ZACHARIAH READ .....	1842	*JOHN W. SNOWDEN.....	1882
*MOSES SCOTT .....	1789	*ABRAHAM SKILLMAN .....	1843	*STEPHEN WICKES.....	1883
*JOHN GRIFFITH .....	1790	*GEORGE R. CHETWOOD....	1844	*P. C. BARKER.....	1884
*LEWIS DUNHAM .....	1791	*ROBERT S. SMITH.....	1845	*JOSEPH PARRISH .....	1885
*ISAAC HARRIS .....	1792	*CHARLES HANNAH .....	1846	CHARLES J. KIPP.....	1886
*ELISHA NEWELL .....	1795	*JACOB T. B. SKILLMAN....	1847	JOHN W. WARD.....	1887
*JONATHAN F. MORRIS....	1807	*SAM'L H. PENNINGTON....	1848	H. GENET TAYLOR.....	1888
*PETER I. STRYKER.....	1808	*JOSEPH FITHIAN .....	1849	*B. A. WATSON.....	1889
*LEWIS MORGAN .....	1809	*ELIAS J. MARSH.....	1850	*JAS. S. GREEN.....	1890
*LEWIS CONDUCT .....	1810	*JOHN H. PHILLIPS.....	1851	ELIAS J. MARSH.....	1891
*CHARLES SMITH .....	1811	*OTHN'L H. TAYLOR.....	1852	GEORGE T. WELCH.....	1892
*MATT. H. WILLIAMSON....	1812	*SAMUEL LILLY .....	1853	JOHN G. RYERSON.....	1893
*SAMUEL FORMAN .....	1814	*A. B. DAYTON.....	1854	O. H. SPROUL.....	1894
*JOHN VAN CLEVE.....	1815	*J. B. COLEMAN.....	1855	WILLIAM ELMER .....	1895
*LEWIS DUNHAM .....	1816	*RICHARD M. COOPER.....	1856	T. J. SMITH.....	1896
*PETER I. STRYKER.....	1817	*THOMAS RYERSON .....	1857	DAVID C. ENGLISH.....	1897
*JOHN VAN CLEVE.....	1818	*ISAAC P. COLEMAN.....	1858	C. R. P. FISHER.....	1898
*LEWIS CONDUCT .....	1819	*JOHN R. SICKLER.....	1859	LUTHER M. HALSEY.....	1899
*JAMES LEE .....	1820	*WM. ELMER .....	1860	*WILLIAM PIERSON .....	1900
*WILLIAM G. REYNOLDS....	1821	*JNO. BLANE .....	1861	E. D. MCGILL.....	1901
*AUGUSTUS R. TAYLOR....	1822	*JNO. WOOLVERTON .....	1862	J. L. B. GODFREY.....	1902
*WILLIAM B. EWING.....	1823	*THEO. R. VARICK.....	1863	HENRY MITCHELL .....	1903
*PETER I. STRYKER.....	1824	*EZRA M. HUNT.....	1864		
*GILBERT S. WOODHULL....	1825	*ABRAM COLES .....	1865		

## HONORARY MEMBERS.

*DAVID HOSACK, New York.....	1827	*FERRIS JACOBS, Delhi, N. Y.....	1872
*J. W. FRANCIS.....	1827	C. A. LINDSLEY, New Haven, Conn.....	1872
*JOHN CONDUCT, Orange.....	1830	*WM. PEPPER, Philadelphia.....	1874
*USHER PARSONS, Rhode Island.....	1839	S. WIER MITCHELL, Philadelphia.....	1876
*REUBEN D. MURPHY, Cincinnati.....	1839	CYRUS F. BRACKETT, Princeton, N. J.....	1880
*ALBAN G. SMITH, New York.....	1839	*JOSEPH C. HUTCHINSON, Brooklyn, N. Y.....	1880
*WILLARD PARKER, New York.....	1842	THOMAS ADDIS EMMETT, New York.....	1884
*VALENTINE MOTT, New York.....	1843	*ISAAC E. TAYLOR, New York.....	1884
*JONATHAN KNIGHT, New Haven.....	1848	*D. HAYES AGNEW, Philadelphia.....	1886
*NATHANIEL CHAPMAN, Philadelphia.....	1848	*JOS. LEIDY, Philadelphia.....	1886
*ALEXANDER H. STEPHENS, New York.....	1848	FREDERICK S. DENNIS, New York.....	1893
*JOHN C. WARREN, Boston.....	1849	*JOHN H. RIPLEY, New York.....	1893
*LEWIS C. BECK, New York.....	1850	VIRGIL P. GIBNEY, New York.....	1893
*JOHN C. TORREY, New York.....	1850	*WILLIAM PIERSON, Orange, N. J.....	1894
*GEORGE B. WOOD, Philadelphia.....	1853	ABRAM JACOBI, New York.....	1896
*H. A. BUTTOLPH, Short Hills, N. J.....	1854	*VIRGIL M. D. MARCY, Cape May City.....	1896
*ASHBEL WOODWARD, Franklin, Conn.....	1861	*SAMUEL H. PENNINGTON, Newark, N. J.....	1897
*THOMAS W. BLATCHFORD, Troy, N. Y.....	1886	ALFRED A. WOODHULL, Princeton, N. J.....	1901
*JEREMIAH S. ENGLISH, Manalapan, N. J.....	1867	J. LEONARD CORNING, New York.....	1902
*STEPHEN WICKES, Orange, N. J.....	1868	JOHN ALLAN WYETH, New York.....	1903
*S. O. VANDERPOOL, Albany, N. Y.....	1872	WILLIAM K. VAN REYPEN, U. S. N.....	1903
*JOSEPH PARRISH, Burlington, N. J.....	1872	LAWRENCE F. FLICK, Philadelphia, Pa.....	1903

## PERMANENT DELEGATES.

### ATLANTIC COUNTY.

B. C. PENNINGTON, Atlantic City.....	1900
W. BLAIR STEWART, Atlantic City.....	1900
E. A. REILLY, Atlantic City.....	1903
W. E. DARNALL, Atlantic City.....	1903
J. ADDISON JOY, Atlantic City.....	1903

### BERGEN COUNTY.

HENRY C. NEER, Park Ridge.....	1892
DANIEL A. CURRIE, Englewood.....	1899
DAVID ST. JOHN, Hackensack.....	1900
SAMUEL E. ARMSTRONG, Rutherford.....	1901

### HUNTERDON COUNTY.

ISAAC S. CRAMER, Flemington.....	1892
W. S. CREVELING, Valley.....	1896
GEORGE N. BEST, Rosemont.....	1902

### MERCER COUNTY.

R. R. ROGERS, Sr., Trenton.....	1895
DAVID WARMAN, Trenton.....	1897
ELMER BARWIS, Trenton.....	1898
THOS. H. MACKENZIE, Trenton.....	1900
C. F. ADAMS, Trenton.....	1900
J. C. FELTY, Trenton.....	1900
HENRY B. COSTILL, Trenton.....	1902
GEORGE H. FRANKLIN, Hightstown.....	1903



**BURLINGTON COUNTY.**

J. HOWARD PUGH, Burlington.....	1892
ENOCH HOLLINGSHEAD, Pemberton.....	1903

**CAMDEN COUNTY.**

DUNCAN W. BLAKE, Gloucester.....	1895
ONAN B. GROSS, Camden.....	1895
DANIEL STROCK, Camden.....	1899
WILLIAM H. ISZARD, Camden.....	1899
WILLIAM A. DAVIS, Camden.....	1900
ALEXANDER McALISTER, Camden.....	1903
WILLIAM S. JONES, Camden.....	1903
HARRY H. SHERK, Camden.....	1903

**CAPE MAY COUNTY.**

RANDOLPH MARSHALL, Tuckahoe.....	1903
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**CUMBERLAND COUNTY.**

S. T. DAY, Port Norris.....	1899
M. K. ELMER, Bridgeton.....	1900
O. H. ADAMS, Vineland.....	1900
JOSEPH TOMLINSON, Bridgeton.....	1902
W. L. NEWELL, Millville.....	1903
J. C. APPLGATE, Bridgeton.....	1902

**ESSEX COUNTY.**

CHARLES YOUNG, Newark.....	1892
JOSEPH C. YOUNG, Newark.....	1892
HERMAN C. BLEYLE, Newark.....	1896
WILLIAM J. CHANDLER, South Orange.....	1896
EDWARD J. ILL, Newark.....	1896
GEORGE R. KENT, Newark.....	1896
DANIEL M. SKINNER, Belleville.....	1896
CHARLES H. BAILEY, Bloomfield.....	1898
THOMAS S. FITCH, Orange.....	1898
RICHARD C. NEWTON, Montclair.....	1898
JOSHUA W. READ, Newark.....	1898
GEORGE A. VAN WAGENEN, Newark.....	1898
JAMES T. WRIGHTSON, Newark.....	1898
PETER V. P. HEWLETT, Newark.....	1900
THERON Y. SUTPHEN, Newark.....	1900
CHARLES F. UNDERWOOD, Newark.....	1900
L. EUGENE HOLLISTER, Newark.....	1900
CHARLES D. BENNETT, Newark.....	1900
WILLIAM B. GRAVES, East Orange.....	1900
ROBERT G. STANWOOD, Newark.....	1900
THOMAS W. HARVEY, Orange.....	1901
AARON K. BALDWIN, Newark.....	1902
JOHN H. BRADSHAW, Orange.....	1903
DAVID E. ENGLISH, Millburn.....	1903
GEORGE B. PHILHOWER, Nutley.....	1903
RICHARD P. FRANCIS, Montclair.....	1903
HENRY L. COIT, Newark.....	1903
THEODORE W. CORWIN, Newark.....	1903
RICHARD G. P. DIEFFENBACH, Newark.....	1903
EDWARD STAEHLIN, Newark.....	1903
LIVINGSTON S. HINCKLEY, Newark.....	1903

**GLOUCESTER COUNTY.**

GEORGE E. READING, Woodbury.....	1893
JAMES HUNTER, JR., Westville.....	1898
EUGENE T. OLIPHANT, Bridgeport.....	1903

**HUDSON COUNTY.**

*ROMEO F. CHABERT, Hoboken.....	1892
J. A. EXTON, Arlington.....	1898
JOS. M. RECTOR, Jersey City.....	1900
FREDERICK M. CORWIN, Bayonne.....	1900
GEO. E. McLAUGHLIN, Jersey City.....	1900
MORTIMER LAMPSON, Jersey City.....	1900
T. R. CHAMBERS, Jersey City.....	1900

\*Deceased.

**MIDDLESEX COUNTY.**

EDWARD B. DANA, Metuchen.....	1898
AMBROSE TREGANOWAN, South Amboy.....	1898
F. M. DONAHUE, New Brunswick.....	1900
DAVID STEPHENS, New Brunswick.....	1903

**MONMOUTH COUNTY.**

HENRY MITCHELL, Asbury Park.....	1892
D. McLEAN FORMAN, Freehold.....	1901
EDWIN FIELD, Red Bank.....	1901
P. B. PUMYEA, Allentown.....	1901
GEORGE F. WILBUR, Asbury Park.....	1901
F. C. PRICE, Imlaystown.....	1901
SAMUEL JOHNSON, Asbury Park.....	1901
CYRUS KNECHT, Matawan.....	1902

**MORRIS COUNTY.**

I. W. CONDUCT, Dover.....	1892
LEVI FARROW, Middle Valley.....	1895
CUTHBERT WIGG, Boonton.....	1899
JAMES DOUGLASS, Morristown.....	1901
STEPHEN PIEKSON, Morristown.....	1901
F. W. FLAGGE, Rockaway.....	1901
CALVIN ANDERSON, Madison.....	1901
BRITTON D. EVANS, Morris Plains.....	1902
A. A. LEWIS, Morristown.....	1903

**PASSAIC COUNTY.**

W. B. JOHNSON, Paterson.....	1892
P. A. HARRIS, Paterson.....	1893
GEORGE H. BALLERAY, Paterson.....	1896
JOHN L. LEAL, Paterson.....	1899
C. H. SCRIBNER, Paterson.....	1900
ROBT. M. CURTS, Paterson.....	1900
JAMES M. STEWART, Paterson.....	1900
JOHN T. GILLSON, Paterson.....	1900
MATTHEW A. MACKINTOSH, Paterson.....	1900
ANDREW F. McBRIDE, Paterson.....	1902

**SALEM COUNTY.**

B. A. WADDINGTON, Salem.....	1893
W. H. JAMES, Pennsville.....	1900
HENRY CHAVANNE, Salem.....	1900

**SOMERSET COUNTY.**

S. O. B. TAYLOR, Millstone.....	1897
J. P. HECHT, Raritan.....	1898
A. L. STILLWELL, Somerville.....	1900
MARY E. GASTON, Somerville.....	1902

**SUSSEX COUNTY.**

E. MORRISON, Newton.....	1903
B. W. FERGUSON, Beemerville.....	1899
H. D. VAN GAASBECK, Sussex.....	1903

**UNION COUNTY.**

ALONZO PETTIT, Elizabeth.....	1893
E. B. SILVERS, Rahway.....	1893
J. ACKERMAN COLES, Scotch Plains.....	1896
T. H. TOMLINSON, Plainfield.....	1896
JAMES S. GREEN, Elizabeth.....	1900
N. L. WILSON, Elizabeth.....	1900
W. U. SELOVER, Rahway.....	1900
T. N. McLEAN, Elizabeth.....	1903

**WARREN COUNTY.**

J. M. REESE, Philipsburg.....	1902
G. W. CUMMINS, Belvidere.....	1903



# Members of District Medical Societies

REPRESENTED AT THE  
ANNUAL MEETING, 1904.

## ATLANTIC COUNTY.

District Society organized June 7, 1880. Annual meeting first Friday in January.

Theo. Senseman, <i>Pres.</i> , Cor. St. Chrls & Pac., Atlantic City	C. Garrabrant, 1001 Atlantic Ave., Atlantic City	W. M. Pollard, 25 S. So. Carolina Ave., Atlantic City
E. H. Madden, <i>V.-Pres.</i> , Absecon	G. P. Gehring, Bakersville	W. M. Powell, 31 S. Indiana Ave., "
Edward Guion, <i>Sec. &amp; Treas.</i> , 1408 Atlantic Ave., Atlantic City	E. H. Harvey, 30 N. Florida Ave., Atlantic City	Eugene L. Reed, Cor. Pac. & Virginia Aves., "
A. B. Shimer, <i>Rep.</i> , 606 Pacific Ave., "	W. M. Hodges, 501 Fifth Ave., N. Y. City	Talbot Reed, 805 Atlantic Ave., "
Clara Bartlett, 11 N. N. C. Ave., "	E. E. Howard, Somers Point	Thos. K. Reed, 22 N. Pacific Ave., "
D. A. Berner, "	H. C. James, Mays Landing	Edward A. Reiley, 20 S. Tennessee Ave., "
E. C. Chew, 28 So. Kentucky Ave., "	J. Addison Joy, 1920 Pacific Ave., Atlantic City	Walter Reynolds, 27 S. Indiana Ave., "
W. P. Conaway, 1723 Pacific Ave., "	B. R. Lee, 901 Pacific Ave., "	C. E. Sausberry, Mays Landing
C. Cunningham, Hammonton	I. E. Leonard, "	Geo. Scott, So. Virginia Ave., Atlantic City
A. D. Cuskaden, 2 So. Michigan Ave., Atlantic City	T. H. Madden, Absecon	E. S. Sharpe, 34 N. Georgia Ave., "
Wm. E. Darnall, 1704 Pacific Ave., "	Emery Marvel, 811 Pacific Ave., Atlantic City	M. L. Somers, 2012 Pacific Ave., "
J. F. De Silver, 1209 Pacific Ave., "	Philip Marvel, 1616 Pacific Ave., "	R. M. Sooy, Pleasantville
H. S. Doriss, So. S. C. Ave., "	J. C. Marshall, 1517 Pacific Ave., "	L. R. Souder, 1910 Pacific Ave., Atlantic City
T. G. Dunlap, 921 Pacific Ave., "	V. W. Metzler, Pacific & Kent'y Aves., "	W. Blair Stewart, Cor. Pac. & N. C. Aves., "
C. E. Filbert, Cor. Atl. & Morris Ave., "	H. D. Nichols, 23 S. 19th St., Phila.	C. G. Towar, "
C. M. Fish, Pleasantville	James North, 29 S. Tennessee Ave., Atlantic City	W. H. Walling, Champion Apts., "
J. H. Frick, Atlantic City	B. C. Pennington, 1212 Pacific Ave., "	J. Bart Webster, 132 S. Maryland Ave., "

No. Members 51.

## BERGEN COUNTY.

District Society reorganized February 28, 1854. Annual meeting second Tuesday in April.

Wm. L. Vroom, <i>Pres.</i> , Ridgewood	H. C. Elsing, Ridgefield Park	J. E. Pratt, Schraalenburgh
J. F. Bell, <i>Vice-Pres.</i> , Englewood	Frank Freeland, Maywood	John Riordan, Carlstadt
Daniel A. Currie, <i>Sec'y.</i> , "	Geo. Bancroft Gale, Rutherford	Ernest Sickenburger, Rutherford
David St. John, <i>Treas.</i> , Hackensack	T. N. Gregory, Englewood	B. D. Stone, Westwood
J. W. Proctor, <i>Rep.</i> , Englewood	Fred. F. Hallett, Hackensack	A. A. Swayze, Hackensack
Samuel E. Armstrong, Rutherford	John J. Haring, Tenafly	J. W. Terry, Englewood
M. S. Ayres, Fairview	C. W. Harreys, Ridgewood	Theo. E. Townsend, Westwood
H. M. Banks, Englewood	Edwin Holmes, Englewood	Joseph S. Van Dyke, Hackensack
M. Blinkston, Westwood	Joseph Huger, Fort Lee	Carrie H. Van Horn, Englewood
F. C. Bradner, "	L. C. Knapp, Hackensack	Byron G. Van Horne, "
Chas. D. Brooks, Hackensack	J. B. W. Lansing, Tenafly	F. H. White, Hackensack
Chas. Calhoun, Rutherford	Howard McFadden, Hackensack	J. Talmage Wyckoff, Leonia
E. E. Conover, Hasbrouck Heights	J. A. Moeing, Park Ridge	Max Wyler, Fort Lee
Edgar K. Conrad, Hackensack	H. C. Neer, "	Samuel J. Zabriskie, Westwood
J. F. Demund, Ridgewood	L. B. Parsell, Closter	

No. members, 44.

**BURLINGTON COUNTY.**

Society organized May 19, 1829. Meets second Wednesday in January, April, June and October.  
Annual meeting second Wednesday in January.

J. H. Pugh, <i>President</i> ,	Burlington	Florence A. Dyer,	Riverton	Lewis L. Sharp,	Medford
J. B. Winterstein, <i>V.-Pres.</i> ,	Moorestown	John J. Flynn,	Mount Holly	F. S. J. Stoddart,	Reydal, Pa.
George T. Tracy, <i>Sec'y</i> ,	Beverly	F. A. Gauntt,	Burlington	N. N. Stokes,	Moorestown
Enoch Hollingshead, <i>Treas.</i> ,	Pemberton	J. S. Gilbert,	Bordentown	F. G. Stroud,	"
Joseph Stokes, <i>Rep.</i> ,	Moorestown	A. L. Gordon,	Burlington	Emma P. Weeks Metzger,	Riverside
Alex. Marcy, Jr., <i>Censor</i> ,	Riverton	J. Clifford Haines,	Vincentown	George H. Wilkinson,	"
W. C. Parry, <i>Censor</i> ,	Hainesport	Jacob R. Haines,	Mount Holly	Irene D. Young,	Bordentown
A. H. Small, <i>Censor</i> ,	Riverside	Willits P. Haines,	Medford		
W. H. Shipp, <i>Hist.</i> ,	Bordentown	Walter E. Hall,	Burlington	CONTRIBUTING MEMBER.	
David Baird, Jr.,	Florence	I. W. Hollingshead,	123 S. 18th St., Phila., Pa.	William Martin,	Bristol, Pa.
Richard C. Barrington,	Mount Holly	J. D. Janney,	Cinnaminson	HONORARY MEMBERS.	
J. E. Blair,	Burlington	Wm. P. Melcher,	Mount Holly	Charles P. Noble,	1633 Locust St., Phila., Pa.
B. K. Brick,	Marlton	C. D. Mendenhall,	Bordentown	E. P. Townsend,	Billings, Mont.
John B. Cassaday,	Burlington	R. H. Parsons,	Mount Holly	Chas. H. Thomas,	1509 Locust St., Phila., Pa.
J. E. Dubell,	Columbus	Elmer D. Prickett,	"	T. T. Price,	Tuckerton
No. members, 37.					

**CAMDEN COUNTY.**

Organized August 14, 1846. Annual meeting second Tuesday in May.

Joseph H. Wills, <i>Pres.</i> ,	3rd & Penn, Camden	Frank L. Horning,	623 Market, Camden	Sophia Presley,	323 N. 4th, Camden
William A. Westcott, <i>V.-Pres.</i> ,	Berlin	J. Edgar Howard,	Haddonfield	Ernest S. Ramsdell,	423 Linden, "
Paul M. Mecray, <i>Sec'y</i> ,	405 Cooper, Camden	Joseph E. Hurff,	Blackwood	Emma M. Richardson,	581 Stevens, "
Joel W. Fithian, <i>Treas.</i> ,	608 Broadway, "	William H. Iszard,	411 N. 4th, Camden	Frank Neall Robinson,	518 Linden, "
Alfred Cramer, <i>Hist.</i> ,	433 Penn, "	Harry Jarrett,	Broadway & Cherry, "	Orris W. Saunders,	1813 S. 6th, "
Ezra B. Sharp, <i>Rep.</i> ,	412 Broadway, "	William B. Jennings,	Haddonfield	E. A. Y. Schellenger,	429 Cooper, "
Joseph S. Baer,	565 Stevens, "	William S. Jones,	3d & Penn, Camden	Jennie S. Sharp,	412 Broadway, "
Wilson G. Bailey,	Broadway & Pine, "	William W. Kain,	5th & Pine, "	Henry H. Sherk,	2647 Westfield Ave., "
Dowling Benjamin,	215 Cooper, "	William I. Kelchner,	924 Cooper, "	J. Anson Smith,	Blackwood
John K. Bennett,	Gloucester	William H. Kensinger,	733 N. 27th, "	William A. Sprengar,	451 Kaighn Ave., Camden
Duncan W. Blake,	"	Grant E. Kirk,	1801 Broadway, "	John R. Stevenson,	Haddonfield
Walter S. Bray,	2nd & York, Camden	John F. Leavitt,	522 N. 3d, "	Daniel Stout,	Berlin
Sylvan G. Bushey,	7th & Pine, "	Adrienne LeFevre,	Blackwood	Daniel Strock,	818 Federal, Camden
Robert Casperson,	215 N. 3d, "	Ahab H. Lippencott,	21 Broadway, Camden	H. Genet Taylor,	305 Cooper, "
Henry H. Davis,	569 Benson, "	Alexander Marcy,	Riverton	John E. L. Vansciver,	4th & Berkley, "
William A. Davis,	3d & Cooper, "	Frederick W. Marcy,	6th & Penn, Camden	Charles Wettton,	1046 Cooper, "
Vernon E. DeGrofft,	602 Broadway, "	John W. Marcy,	Merchantville	Wendell P. Wingender,	8th & Market, Camden
John W. Donges,	525 Broadway, "	Paul H. Markley,	515 Cooper, Camden	Frank M. Wood,	Brdwy & Washington, "
Fred V. Dunn,	623 S. 3d St., "	J. Watson Martindale,	2303 Federal, "	Orran A. Wood,	Magnolia
Alfred M. Elwell,	330 Cooper, "	Alexander McAllister,	582 Federal, "	E. B. Woolston,	Marlton
E. L. B. Godfrey,	400 Linden, "	William E. Miller,	8th & Mt. Vernon, "		

**CAMDEN COUNTY—Continued.**

Onan B. Gross,  
700 Market, Camden  
Roland I. Haines,  
3d & Kaighn Ave., "  
Wm. J. Halbeison,  
501 Pine, "  
John J. Haley,  
Gloucester  
Levi B. Hirst,  
586 Federal, Camden  
Conrad G. Hoell,  
565 Benson, "  
No. members, 86.

Marcus K. Mines,  
532 West, Camden  
Joseph L. Nicholson,  
400 Penn, "  
Milton W. Osmun,  
815 Broadway, "  
Howard F. Palm,  
614 N. 2d, "  
Edward C. Pechin,  
312 N. 2nd, "  
William R. Powell,  
702 Market, "  
William H. Pratt,  
406 N. 6th, "

HONORARY MEMBERS.  
G. W. Doughman,  
Marshalltown, New Castle Co., Del.  
John B. Davis,  
6th & Lawrence, Camden  
Richard C. Dean,  
U. S. Navy  
Chas. G. Garrison,  
Merchantville  
J. W. Hewlings,  
Moorestown  
J. Orlando White,  
329 Cooper, Camden

**CAPE MAY COUNTY.**

Society organized March 12, 1885. Meets first Tuesday in May and October.

Jos. C. Marshall, *Pres.*,  
Tuckahoe  
Nathan A. Cohen, *V.-Pres.*,  
Wildwood  
Daniel K. Webster, *Sec'y.*,  
South Seaville  
Randolph Marshall, *Treas.*,  
Tuckahoe  
Wm. A. Lake, *Censor*,  
Cold Spring  
B. T. Abbott,  
Ocean City  
George B. Adams,  
Wildwood  
No. members, 18.

John B. Dix,  
Cape May Court House  
J. S. Douglas,  
Tuckahoe  
Anna Hand,  
Cape May City  
A. L. Leach,  
" "  
James Mecray,  
" "  
Emelin Physic,  
" "  
J. M. Slaughter,  
Wildwood

Wesley R. Wales,  
Cape May City  
Eugene Way,  
Dennisville  
Julius Way,  
Cape May Court House

**HONORARY MEMBERS.**

Chas. M. Gandy,  
U. S. Army  
J. H. Ingram,  
China  
Jonathan Leaming,  
Cape May Court House

**CUMBERLAND COUNTY.**

Society organized December 8, 1818. Annual meeting second Tuesday in April.

Mary J. Dunlap, *Pres.*,  
Vineland  
W. P. Glendon, *V.-P. & Rep.*,  
Cedarville  
Ellsmore Stites, *Secretary*,  
Bridgeton  
Jos. Tomlinson, *Treas.*,  
"  
O. H. Adams,  
Vineland  
J. C. Applegate,  
Bridgeton  
Frank M. Bateman,  
Cedarville  
Samuel Bennett,  
Millville  
L. H. Bossert,  
Newport  
E. B. Bradford,  
Port Norris  
N. H. Burt,  
Ocean City  
Alfred Cornwell,  
Bridgeton  
E. S. Corson,  
"  
T. G. Davis,  
"  
Grafton E. Day,  
Millville  
S. T. Day,  
Port Norris  
E. L. Diament,  
Bridgeton  
H. W. Elmer,  
"  
M. K. Elmer,  
"  
No. members, 46.

S. Eldridge Ewing,  
Leesburg  
Edward S. Fogg,  
Bridgeton  
C. S. Frankle,  
Millville  
E. Stanley Goudv.,  
Deerfield  
L. L. Hand,  
Millville  
J. T. Howard,  
Washington, D. C.  
Ernest Hummell,  
Shiloh  
Lester Hummell,  
Salem  
Ferdinand Jones,  
Millville  
A. R. Judson,  
New Port  
Reba Lloyd,  
Bridgeton  
Chas. H. Mayhew,  
Millville  
Samuel D. Mayhew,  
Bridgeton  
H. G. Miller,  
Millville  
John H. Moore,  
Bridgeton  
C. B. Neal,  
Millville  
W. L. Newell,  
"  
David H. Oliver,  
Bridgeton  
E. S. Robinson,  
Newport

T. J. Smith,  
Bridgeton  
S. M. Snyder,  
Greenwich  
J. R. C. Thompson,  
Bridgeton  
J. W. Wade,  
Millville  
F. P. Wainwright,  
"  
C. W. Wilson,  
Vineland  
S. M. Wilson,  
Bridgeton  
John H. Winslow,  
Vineland

**ASSOCIATE MEMBERS.**

W. E. Ashton,  
2011 Walnut St., Phila., Pa.  
J. M. Barton,  
1314 Spruce St., "  
J. Chalmers DaCosta,  
2045 Walnut St., "  
Judson Daland,  
317 S. 18th St., "  
H. A. Hare,  
1801 Spruce St., "  
B. C. Hirst,  
1821 Spruce St., "  
W. W. Keen,  
1729 Chestnut St., "  
Charles P. Noble,  
1509 Locust St., "  
Chas. A. Oliver,  
1507 Locust St., "  
David Reisman,  
326 S. 16th St., "



## ESSEX COUNTY.

Society organized June 8, 1816. Annual meeting first Tuesday in April.

Richard C. Newton, <i>Pres.</i> , Montclair	Charles W. Hagen, 224 So. Orange Ave., Newark	Robert C. Potter, 34 Centre St., Newark
Wm. S. Disbrow, <i>V.-P. &amp; Rep.</i> , 151 Orchard St., Newark	John F. Hagerty, 297 Central Ave., "	Henry A. Pulsford, South Orange
Archibald Mercer, <i>Sec'y</i> , 31 Washington St., Newark	Frederick W. Hagney, 67 Pennsylvania Ave., "	William O'G. Quinby, 80 Columbia St., Newark
Charles D. Bennett, <i>Treas.</i> , 167 Clinton Ave., "	Eleanor Haines, 934 Broad St., "	John M. Rand, 12 Hill St., "
William H. Areson, Upper Montclair	Edward H. Hammill, 230 Roseville Ave., "	Charles H. Randall, 50 3d Ave., "
Maurice Asher, 20 Court St., Newark	James T. Hanan, Montclair	Joshua W. Read, 82 Park Pl., "
Charles H. Bailey, Bloomfield	E. Eugene Harbert, East Orange	Robert C. Ribbans, 63 Central Ave., "
William O. Bailey, 232 S. Orange Ave., Newark	Hugh M. Hart, 16 Gouverneur St., Newark	Edward M. Richman, 248 Mulberry St., "
Aaron K. Baldwin, 291 Plane St., "	Thomas W. Harvey, Orange	Philip Ricord, 268 Bank St., "
Samuel H. Baldwin, 473 Clinton Ave., "	E. Zeh Hawkes, 15 Central Ave., Newark	Samuel E. Robertson, 344 Lafayette St., "
Winfred E. Baldwin, 462 Orange St., "	Joseph H. Haydon, 22 Briantall Pl., Newark	Benjamin A. Robinson, 265 Mulberry St., "
Frederick W. Becker, 478 Clinton Ave., "	John Hemstath, 36 Spruce St., "	Manning N. Robinson, 159 Elm St., "
George C. Becket, East Orange	Herman C. H. Herold, 77 Congress St., "	William D. Robinson, East Orange
Angelo R. Bianchi, 103 Seventh Ave., Newark	Peter V. P. Hewlett, 181 Plane St., "	Hugh P. Roden, 345 Washington St., Newark
Arthur W. Bingham, East Orange	William H. Hicks, 425 So. Orange Ave., "	William J. Roeber, 24 Monmouth St., "
William D. Bleick, 340 Waverly Ave., Newark	Livingston S. Hinckley, 182 Clinton Ave., "	George A. Rogers, 1 Wallace St., "
Hermon C. Bleyle, 118 Union St., "	Edgar Holden, Jr., 13 Central Ave., "	Robert H. Rogers, 64 S. 10th St., "
John H. Bradshaw, Orange	L. Eugene Hollister, 138 Clinton Ave., "	Clarence Rostow, 655 High St., "
Stella S. Bradford, Montclair	George J. Holmes, 19 Pennington St., "	Mefford Runyon, South Orange
Rudolph Braun, 180 Polk St., Newark	Willam J. Houck, 110 Bloomfield Ave., "	Anthony B. Russell, East Orange
William M. Brien, West Orange	Ralph H. Hunt, East Orange	Sumner Schailer, 259 Clinton Ave., Newark
James S. Brown, Montclair	Charles L. Ill, 188 Clinton Ave., Newark	Charles A. Schneider, 44 Hillside Pl., "
Charles H. Bruckner, 118 Newton St., Newark	Edward J. Ill, 1002 Broad St., "	Charles A. Schureman, 22 Hill St., "
William Buerman, 352 Belmont Ave., Newark	Frederick C. Jacobson, 108 Washington St., "	Emanuel Schwartz, 561 High St., "
Charles V. Burke, 136 Bowery St., "	Meyer Jedel, 362 Warren St., "	Edward Sealy, 369 Washington St., "
Edwin L. Burns, 269 Broad St., "	Jotham C. Johnson, 11 Tichenor St., "	William F. Seidler, 21 Ferry St., "
Robert L. Burrage, East Orange	William A. Judson, 235 Clifton Ave., "	Marco Seidman, 580 High St., "
Carl Buttner, Orange	Ernest Kaufman, 63 New St., "	Frederick G. Shaul, Bloomfield
Wellington Campbell, Short H'l's	William F. Keim, 7 Roseville Ave., "	Elbert S. Sherman, 191 Summer Ave., Newark
Fletcher F. Carman, Montclair	George R. Kent, 37 Eighth Ave., "	William F. Shick, 31 Park St., "
William E. Carroll, 481 Broad St., Newark	Charles J. Kipp, 560 Broad St., "	William A. Shopfer, 43 Read St., "
Levi W. Case, Montclair	Joseph M. W. Kitchen, East Orange	M. Herbert Simmons, Orange
Douglas A. Cater, Orange	Francis E. Knowles, South Orange	Daniel M. Skinner, Belleville
William J. Chandler, South Orange	Louis A. Koch, 37 Warren St., Newark	Anna L. Smith, Montclair
Albion C. Christian, Irvington	Henry A. Korneman, 262 16th Ave., Newark	E. Fayette Smith, 9 Fulton St., Newark
J. Henry Clark, 277 Mt. Prospect Ave., Newark	Geo. F. M. Lamont, 194 Clinton Ave., "	D. Winans Smith, 201 Walnut St., "
Henry L. Coit, 51 Halsey St., "	Stephen G. Lee, Orange	Joseph T. Somerhof, 146 William St., "
John F. Condon, Belleville	Charles F. Lehlbach, 537 High St., Newark	Edward Staehlin, 493 High St., "
Hugh F. Cook, 15 Roseville Ave., Newark	Samuel B. W. Leyerberger, 98 Bloomfield Ave., "	Jacob S. Stage, 95 Jefferson St., "
George F. Corrigan, 292 Walnut St., "	Jesse D. Lippincott, 304 Summer Ave., "	Edwin Steiner, 492 High St., "



## ESSEX COUNTY—Continued.

Horace C. Cory, 484 Broad St., Newark	Frank W. Lockwood, East Orange	Carlyle E. Sutphen, 185 Roseville Ave., Newark
Everit P. Courtright, 24 Fulton St., "	Herbert W. Long, 119 Madison St., Newark	Edward B. Sutphen, 999 Broad St., "
Theodore W. Corwin, 5 West Park St., "	Thomas W. Loweree, 30 Hill St., "	Theron Y. Sutphen, 999 Broad St., "
David H. Crawford, 14 Bridge St., "	Otto Lowy, 62 Beacon St., "	Martin J. Synnott, Montclair
Maximillian Danzis, 46 Mercer St., "	Calista V. Luther, South Orange	Henry A. Tarbell, 28½ Thomas St., Newark
Peter P. Davenport, Vailsburg	Augusta M. Madison, 188 Roseville Ave., Newark	Charles E. Teeter, 418 Orange St., "
William H. K. Davis, East Orange	James M. Maghee, Orange	Charles W. Titus, 126 N. 7th St., "
John Dennis, 287 Belleville Ave., Newark	William H. Martland, 1182 Broad St., Newark	Henry A. Towle, 16 Halsey St., "
Winfield S. DeVausney, 102 Central Ave., "	Henry E. Mathews, Orange	Ernest Tutschulte, 149 Polk St., "
Frank Devlin, 90 Congress St., "	Daniel L. McCormick, 252 Mulberry St., Newark	Sidney A. Twinch, 598 Broad St., "
Richard G. P. Dieffenbach, 222 So. Orange Ave., "	Henry D. McCormick, Verona	Charles F. Underwood, 259 Mt. Prospect Ave., "
Daniel M. Dill, 425 So. Orange Ave., "	Floy McEwan, 299 Belleville Ave., Newark	Ralph Updike, Montclair
Walter Dodge, Orange	William H. McKenzie, 942 Broad St., "	Herbert B. Vail, Belleville
Arthur C. Dougherty, 158 Washington St., Newark	Sarah R. Mead, 16 James St., Newark	Sarah E. Van Duynne, 245 Belleville Ave., Newark
John L. Duryee, 436 High St., "	Frank B. Meeker, 163 First St., "	George A. Van Wagenen, 101 N. 6th St., "
Wells P. Eagleton, 15 Lombardy St., "	Pancrazio M. Megaro, 313 High St., "	Maria M. Vinton, East Orange
Sarah M. Edwards, 207 Summer Ave., "	Paul E. Menk, 29 13th Ave., "	Benjamin H. Voelbel, Vailsburg
Henry B. Epstein, 455 High St., "	Elizabeth Mercelis, Montclair	George N. Wait, 569 High St., Newark
Julius Egge, 439 Washington St., "	Andrew M. Mills, 122 Washington St., Newark	Henry Wallace, Glen Ridge
Linn Emerson, Orange	Augustus J. Mitchell, 74 South St., "	Henry J. F. Wallhauser, 47 New St., Newark
David E. English, Millburn	Winthrop D. Mitchell, East Orange	Aaron C. Ward, 325 Clinton Ave., "
James R. English, 800 Clinton Ave., Newark	John D. Moore, Bloomfield	Edwin M. Ward, Bloomfield
Joseph Fewsmith, 47 Central Ave., "	Clement Morris, 77 Washington Ave., Newark	George L. Warren, 77 Houston St., Newark
Joseph W. Fewsmith, 76 Central Ave., "	Eugene W. Murray, 493 Summer Ave., "	Walter S. Washington, 8 Washington St., "
Thomas S. P. Fitch, Orange	Eugene W. Murray, 493 Summer Ave., "	Frederick Webber, 96 Clinton Ave., "
Richard P. Francis, Montclair	Frederick C. Nadler, 33 Green St., "	Louis Weiss, 61 Beacon St., "
Richard D. Freeman, South Orange	Albert B. Nash, 10 South 13th St., "	George O. Welshman, 150 Summer Ave., "
Mathias T. Gaffney, 211 Plane St., Newark	Emanuel Newman, 81 New St., Newark	Lars T. Wendelboe, 104 West St., "
Ruel S. Gage, 17 Gould Ave., "	Anna B. Newton, South Orange	Elmer G. Wherry, 414 Clinton Ave., "
William Gauch, 199 High St., "	Willis C. Noble, Montclair	William H. White, Bloomfield
Isabel M. Geddes, 16 James St., "	Henry W. Nolte, 255 Mulberry St., Newark	Henry B. Whitehorne, Verona
Robert F. Gillen, 36 Clinton St., "	Victor Parsonnet, 134 West Kinney St., "	Miller R. Whitenack, 19 Bathgate Pl., Newark
Herman A. Glatzmayer, 104 13th Ave., "	Edward E. Peck, Caldwell	Albert Wickman, 325 Washington St., "
William M. Goodwin, 88 Congress St., "	Percy S. Pelonze, 696 S. 14th St., Newark	W. Stockton Wilson, 96 Montclair Ave., "
Francis S. Gordon, 271 Clifton Ave., "	William Pennington, Irvington	Edward E. Worl, 271 High St., "
William B. Graves, East Orange	William Petry, 325 So. Orange Ave., Newark	James A. Wormley, 83 New St., "
Thomas N. Gray, "	Edward D. Phelan, 18 South St., "	James T. Wrightson, 10 Central Ave., "
Solomon Greenbaum, 142 W. Kinney St., Newark	George P. Philhower, Nutley	Charles Young, 23 E. Kinney St., "
Chauncey B. Griffiths, 145 Monmouth St., "	Frank W. Pinneo, 159 Fourth Ave., Newark	
Emil A. Guenther, 159 W. Kinney St., "	Charles R. Pittenger, 82 Congress St., "	
	Daniel W. Poor, 27 Ridge St., Orange	

**ESSEX COUNTY—Continued.**

Robt. A. Guliana,  
231 Orange St., Newark  
John F. Hagar,  
88 Ferry St., "  
No. members, 238.

Katherine Porter,  
Orange  
Palmer A. Potter,  
East Orange

Joseph C. Young,  
964 Broad St., Newark  
Charles M. Zeh,  
481 Broad St., "

**GLOUCESTER COUNTY.**

Society organized December, 1818. Annual meeting third Thursday in January.  
Wm. Brewer, *President*,  
Woodbury  
Elias M. Duffield, *Vice-Pres.*,  
Glassboro  
Geo. E. Reading, *Sec. & Treas.*,  
Woodbury  
Wesley Grant Simmons, *Rep.*,  
Swedesboro  
L. M. Halsey, *Censor*,  
Williamstown  
James Hunter, Jr., *Censor*,  
Westville  
Harry A. Stout, *Censor*,  
Wenonah  
Samuel F. Ashcraft,  
Mullica Hill  
Henry H. Clark,  
Woodbury  
Henry B. Diverty,  
"  
J. Gaunt Edwards,  
Williamstown  
C. Frank Fisler,  
Clayton  
No. members, 27.

T. Franklin Gifford,  
Woodbury  
Chas. S. Heritage,  
Glassboro  
Eugene Z. Hillegas,  
Mantua  
Joseph M. Husted,  
Clayton  
George C. Laws,  
Paulsboro  
M. Jones Luffbary,  
Glassboro  
James C. McClure,  
Williamstown  
Eugene T. Oliphant,  
Bridgeport  
Cyrus B. Phillips,  
Hurffville  
Albert Porch,  
Clayton  
Samuel F. Stanger,  
Harrisonville  
P. E. Stilwagon,  
Bridgeport  
William M. Stratton,  
Woodbury

B. A. Waddington,  
Salem  
Howard A. Wilson,  
Woodbury  
HONORARY MEMBERS.  
George W. Bailey,  
Philadelphia, Pa.  
Charles M. Burk,  
"  
Henry C. Clark,  
Woodbury  
Judson Daland,  
Philadelphia, Pa.  
E. E. DeGroot,  
Woodstown  
Hobart A. Hare,  
Philadelphia, Pa.  
William H. Iszard,  
Camden  
Charles P. Noble,  
Philadelphia, Pa.  
Mordecai Price,  
1335 Spring Garden St., "  
Chas. S. Turnbull,  
1935 Chestnut St., "

**HUDSON COUNTY.**

Organized October 1, 1851. Annual meeting first Tuesday in May.  
Christopher D. Hill, *Pres.*,  
102 Grand St., Jersey City  
August A. Strasser, *V.-Pres.*,  
115 Beach St., Arlington  
Louis W. Dodson, *Secretary*,  
660 Jersey Ave., Jersey City  
Henry H. Brinkerhoff, *Treas.*,  
695 Bergen Ave., Jersey City  
Calvin F. Kyte, *Reporter*,  
316 Pavonia Ave., "  
Frederick M. Corwin, *Censor*,  
7 W. 6th St., Bayonne  
John P. Henry, *Censor*,  
907 Summit Ave., Jersey City  
W. Perry Watson, *Censor*,  
101 Bentley Ave., Jersey City  
Henry D. Abbott,  
24 E. 33d St., Bayonne  
Ulamor Allen,  
235 Ogden Ave., Jersey City  
Henry Allers,  
109 Harrison Ave., Harrison  
William J. Arlitz,  
630 Bloomfield St., Hoboken  
Edward C. Armstrong,  
512 Fulton St., Town of Union  
E. Mills Baker,  
103 Wayne St., Jersey City  
Charles H. Ball,  
101 Garden St., Hoboken  
John J. Baumann,  
661 Jersey Ave, Jersey City  
Louis Baumann,  
250 5th St., "  
Oliver R. Blanchard,  
37 Clinton Ave., "  
Henry J. Bogardus,  
487 Bergen Ave., "  
J. G. Lewis Borgmeyer,  
90 W. 8th St., Bayonne  
Frank F. Bowyer,  
262 Barron St., Jersey City

James G. Enright,  
297 York St., Jersey City  
John R. Everitt,  
38 Boyd Ave., "  
Chauncey V. Everitt,  
38 Boyd Ave., "  
James A. Exton,  
75 Beach St., Arlington  
John Faber,  
289 Central Ave., Jersey City  
William F. Faison,  
105 Grand St., "  
J. C. Farr, Jr.,  
1233 Garden St., Hoboken  
N. Frederick Feury,  
687 Bergen Ave., Jersey City  
Charles H. Finke,  
315 York St., "  
J. Frederick Finn,  
157 Danforth Ave., "  
Joseph F. Finn,  
157 Danforth Ave., "  
Michael F. Foley,  
710 Hudson St., Hoboken  
Archibald C. Forman,  
41 W. 32d St., Bayonne  
Howard S. Forman,  
640 Bergen Ave., Jersey City  
P. W. Fracé,  
106 11th St., Hoboken  
Aaron Freichman,  
112 Park Ave., "  
William Friele,  
203 Palisade Ave., Jersey City  
George D. Fyfe,  
70 Madison Ave., "  
E. Gamson,  
41 W. 24th St., Bayonne  
R. W. Gelbach,  
809 Hudson St., Hoboken  
Charles A. Gilchrist,  
916 Hudson St., "

George W. Muttart,  
702 Ocean Ave., Jersey City  
D. I. Nalatsiki,  
24 E. 22d St., Bayonne  
A. Nelson,  
15 Sussex St., Jersey City  
John Nevin,  
Fairmount Ave., "  
August W. Oestman,  
961 Summit Ave., Jersey City  
M. W. O'Gorman,  
38 Erie St., "  
William J. Parker,  
694 Bergen Ave., "  
John C. Parsons,  
311 York St., "  
Luigi Pezzè,  
280 4th St., "  
Abdon D. Piskorski,  
552 Jersey Ave., "  
B. S. Pollak,  
713 Bergen Ave., "  
Louis Poole,  
521 Palisade Ave., West Hoboken  
Charles H. Purdy,  
312 Montgomery St., Jersey City  
Imanuel Pyle,  
54 Monticello Ave., "  
Wallace Pyle,  
241 Grove St., "  
Murray E. Ramsey,  
2 Park St., "  
Joseph M. Recker,  
307 York St., "  
Frederick C. Robertson,  
Madison & Clinton Av., "  
James H. Rosencrans,  
826 Hudson St., Hoboken  
Norman L. Rowe,  
798 Grand St., Jersey City  
Henry B. Rue,  
931 Bloomfield St., Hoboken

## HUDSON COUNTY--Continued.

- W. Sims Boyd,  
221 8th St., Jersey City
- William W. Brooke,  
Ave. C & 42d St., Bayonne
- John J. Broderick,  
355 Pacific Ave., Jersey City
- Edward P. Buffett,  
804 Bergen Ave., "
- Edward L. Bull,  
2 Madison Ave., "
- Henry H. Burnett,  
724 Washington St., Hoboken
- \*Romeo F. Chabert  
104 7th St., "
- Talbot R. Chambers,  
490 Jersey Ave., Jersey City
- John A. Chard,  
14 Virginia Ave., Jersey City
- Frank M. Childs,  
927 Washington St., Hoboken
- John F. Connelly,  
276 Avenue C, Bayonne
- Charles B. Converse,  
218 Palisade Ave., Jersey City
- John E. Corrigan,  
546 Bramhall Ave., "
- Burdette P. Craig,  
Blvrd & Highland Av., "
- C. W. Crankshaw,  
2549 Boulevard, "
- Charles W. Cropper,  
85 Gifford Ave., "
- D. LeRoy Culver,  
287 York St., "
- George M. Culver,  
49 Tonnelle Ave., "
- S. Herbert Culver,  
98 Magnolia Ave., "
- Alexander Dallas,  
24 E. 22d St., Bayonne
- T. N. Davey,  
10 E. 34th St., "
- Arthur DeLong,  
659 Jersey Ave., Jersey City
- Charles L. DeMerritt,  
302 Shippen St., Hoboken
- Gordon K. Dickinson,  
278 Montgomery St., Jersey City
- R. H. Dinglestedt,  
619 Hudson St., Hoboken
- M. O. F. Dolphin,  
112 4th St., "
- Lucius F. Donahue,  
33 Dodge St., Bayonne
- Edwin K. Dunkel,  
264 Montgomery St., Jersey City
- Benjamin Edge,  
95 Wayne St., "
- No. members, 150.
- Hugo Gillé,  
149 Congress St., Jersey City
- Leonard J. Gordon,  
Mercer St., "
- Frank D. Gray,  
568 Bergen Ave., "
- Edward P. Hart,  
316 Montgomery St., Jersey City
- Max Hecht,  
324 Shippen St., West Hoboken
- Bert. S. Heintzelmann,  
43 W. 33d St., Bayonne
- Samuel A. Helfer,  
626 Hudson St., West Hoboken
- William L. Hetherington,  
299 Varick St., Jersey City
- Peter Hoffman,  
209 Pavonia Ave., "
- J. Eugenia Jacques,  
74 Waverly St., Jersey City
- J. Morgan Jones,  
121 Sip Ave., "
- A. John Kirsten,  
287 Varick St., "
- William L. Kudlich,  
408 Hudson St., Hoboken
- Richard Kuehne,  
1118 Summit Ave., Jersey City
- Frederick W. Lambert,  
157 Ocean Ave., "
- Mortimer Lampson,  
322 Pacific Ave., "
- Charles K. Law,  
Blvrd & Glenwood Ave., "
- Charles A. Limeburner,  
79 Danforth Ave., "
- John T. Luck,  
Town of Union, Weehawken P. O.
- Frank W. Mallalieu,  
62 Monticello Ave., Jersey City
- Edward G. Marks,  
Elshermius St., Arlington
- John D. McGill,  
124 Mercer St., Jersey City
- George E. McLaughlin,  
41 Crescent Ave., "
- John J. McLean,  
33 Hoboken Ave., "
- Thomas J. McLoughlin,  
558 Jersey Ave., "
- Thomas C. McNamara,  
715 Park Ave., Hoboken
- William Menger,  
421 Garden St., "
- John J. Mooney,  
556 Jersey Ave., Jersey City
- Edward Mulvaney,  
487 Jersey Ave., "
- Oscar J. Russi,  
221 Pavonia Ave., Jersey City
- Josiah L. Sanborn,  
17 E. 33d St., Bayonne
- Ferdinand W. Sauter,  
314 Varick St., Jersey City
- Richard Schlemm,  
116 Palisade Ave., Town of Union
- George H. Sexsmith,  
719 Ave. C, Bayonne
- L. H. Sheiner,  
Bergenline Ave., Town of Union
- George W. Shera,  
489 Jersey Ave., Jersey City
- Harvey V. A. Smith,  
102 Palisade Ave., "
- J. S. Smith,  
16 W. 33d St., Bayonne
- Henry Spence,  
681 Bergen Ave., Jersey City
- Manning F. Squier,  
234 Harrison Ave., Harrison
- Joseph F. Stack,  
212 Garden St., Hoboken
- Eben T. Steadman,  
635 Washington St., "
- Walter Steadman,  
213 Garden St., "
- Frank D. Stellwagon,  
530 Union Pl., Town of Union
- Plincy F. Stevens,  
950 Ave. D, Bayonne
- Robert Stewart,  
824 Grand St., Jersey City
- S. Henry Sulouff,  
10 W. Hamilton Pl., "
- Clarence M. Vreeland,  
96 Danforth Ave., Jersey City
- Hamilton Vreeland,  
79 Summit Ave., "
- William Vreeland,  
2 Park St., "
- A. John Walschied,  
309 Fulton St., Town of Union
- A. W. Warden,  
325 Fulton St., Weehawken
- James W. Ware,  
Ave. C & 46th St., Bayonne
- John E. West,  
Cor. Ocean Ave and Union St., J. C.
- Otto A. Wiegand,  
1151 Summit Ave., Jersey City
- Joseph Wolfson,  
302 Montgomery St., "
- F. C. Wolff,  
1136 Garden St., Hoboken
- Stanley R. Woodruff,  
22 W. 22d St., Bayonne

\* Deceased.

## HUNTERDON COUNTY.

- Society organized June 12, 1821. Annual meeting fourth Tuesday in April.
- Leon T. Salmon, *President*,  
Lambertville
- Peter C. Young, *1st V. Pres.*,  
Ringoos
- Morris, H. Leaver, *2d V. Pres.*,  
Quakertown
- Obadiah H. Sproul, *Sec'y.*,  
Flemington
- Isaac S. Cramer, *Treasurer*,  
"
- Geo. W. Bartow,  
Three Bridges
- Theo. W. Bebout,  
Sterling
- Willard E. Berkaw,  
Annandale
- George N. Best,  
Rosemont
- Wm. R. Carpenter,  
Mt. Pleasant
- No. members, 29.
- John L. Chamberlin,  
Sargeantsville
- Edward Closson,  
Lambertville
- Wm. S. Creveling,  
Valley
- Frederick W. Decker,  
Frenchtown
- John H. Ewing,  
Flemington
- Theo. B. Fulper,  
Glen Gardner
- Francis S. Grim,  
Baptistown
- Fred L. Johnson,  
Stanton
- Paul C. Knight,  
Clinton
- Francis W. Larison,  
Lambertville
- Edward D. Leidy,  
Flemington
- Peter McGill,  
Lambertville
- Edward H. Moore,  
White House
- Alfred B. Nash,  
Frenchtown
- Geo. L. Romine,  
Lambertville
- William H. Schenck,  
Flemington
- Howard Servis,  
Junction
- Quintus E. Snyder,  
Quakertown
- Louis C. Williams,  
Lambertville
- HONORARY MEMBERS.
- H. P. Loomis,  
New York City
- W. D. Wolverton,  
U. S. Army, Retired



## MERCER COUNTY.

Society organized May 23, 1848. Annual meeting second Tuesday in May.

A. Dunbar Hutchinson, <i>Pres.</i> 419 Chestnut Ave., Trenton	Wm. Elmer, 44 W. State St., Trenton	N. B. Oliphant, 152 W. State St., Trenton
Martin W. Reddan, <i>Vice-Pres.</i> , 121 Perry St., Trenton	E. K. Fee, Lawrenceville	Geo. H. Parker, 420 E. State St., "
D. B. Ackley, <i>Sec'y</i> , 881 E. State St., Trenton	J. C. Felty, Box, 258, Trenton	C. H. Reed, Warren & Hall Sts., "
I. M. Shepherd, <i>Treas.</i> , 188 South Broad St., "	Geo. H. Franklin, Hightstown	Geo. M. Midgway, 39 W. State St., "
David F. Weeks, <i>Reporter</i> , 400 W. State St., "	Samuel Freeman, South Broad St., Trenton	Elmer H. Rogers, 126 N. Warren St., "
Charles F. Adams, 52 W. State St., Trenton	C. H. Gordon, 930 E. State St., "	R. K. Rogers, Sr., 110 E. Hanover St., Trenton
H. M. Anderson, Allentown	E. J. Gordon, 1010 S. Clinton Ave., "	R. R. Rogers, Jr., 610 Perry St., "
Charles L. Allen, Box 258, Trenton	Chas. H. Halcombe, 334 W. State St., "	F. G. Scammell, 413 E. State St., "
Alex. Armstrong, South Broad St., "	W. J. Hall, 231 North Warren St., "	G. Schoening, 223 Perry St., "
Elmer Barwis, 211 Hamilton Ave., "	E. S. Hawke, 22 Montgomery St., "	J. B. Seeds, 495 Centre St., Trenton
Henry M. Beatty, Centre & Ferry Sts., "	J. F. Higgins, 398 S. Warren St., "	Jos. B. Shaw, 119 S. Warren St., "
Charles P. Britton, State & Warren Sts., "	A. I. Hunt, Hamilton Square, "	Geo. N. J. Sommer, 229 Perry St., "
A. T. Bruere, 106 Spring St., "	Mozart Jenkins, 136 Walnut Ave., "	W. D. Stevenson, 303 E. State St., "
John Bruyère, 123 Perry St., "	M. M. Kent, South Warren St., "	Geo. E. Titus, Hightstown
Frank V. Cantwell, Broad St. Bank Bldg., "	Wm. S. Lalor, 129 N. Warren St., "	W. B. Van Duyn, Perry St., Trenton
William M. Carling, 230 S. Clinton St., "	Lyman Leavitt, 212 Chestnut Ave., "	Jno. W. Ward, Box 258, "
J. M. Cernochan, Princeton	Thos. H. MacKenzie, 528 E. State St., "	David Warner, Chestnut Ave., "
J. F. Chattin, 40 W. State St., Trenton	Walter Madden, 219 Centre St., "	Chas. H. Waters, 4 Pennington Ave., "
W. A. Clark, 51 W. State St., "	Benj. W. McGalliard, 229 East State St., "	J. H. Wikoff, Princeton
J. C. Craythorn, Spring & Calhoun Sts., "	James McGuire, South Broad St., "	Wm. Wilbur, Hightstown
Paul L. Cort, Box 258, "	Chas. H. McIlwaine, 40 W. State St., "	P. W. Yard, 727 S. Broad St., Trenton
Henry B. Costell, State & Clinton Sts., "	Chas. Mitchell, Centre St., "	HONORARY MEMBER.
A. H. Dey, 430 E. State St., "	George R. Moore, 259 Hamilton Ave., Trenton	Dr. Joseph K. Young, 222 S. Sixteenth St., Phila., Pa.
No. members, 68.	H. G. Norton, 429 E. State St., "	

## MIDDLESEX COUNTY.

Society organized June 16, 1816. Annual meeting third Wednesday in April.

Frank M. Donahue, <i>President</i> 139 Albany St., New Brunswick	A. L. Ellis, Main St., Metuchen	Ferdinand E. Riva, Main & Riva Aves., Milltown
Wm. V. McKenzie, <i>V.-Pres.</i> , Graham Ave., Metuchen	George W. Fithian, High St., Perth Amboy	Patrick A. Shannon, Albany St., New Brunswick
William M. Moore, <i>Secretary</i> , 75 Livingston Av., New Brunswick	Herman Gross, Main St., Metuchen	Clarence M. Slack, 50 Livingston Av., New Brunswick
David C. English, <i>Treasurer</i> , 363 George St., "	Benj. Guttman, 418 George St., New Brunswick	Ira T. Spencer, Main St., Woodbridge
Arthur L. Smith, <i>Rep.</i> , 62 Bayard St., "	Edward E. Haines, 134 David St., South Amboy	David Stephens, 229 George St., New Brunswick
John C. Albright, 194 Broadway, South Amboy	Frank C. Henry, 134 State St., Perth Amboy	John L. Suydam, Jamesburg
Thomas Alsoop, 422 George St., New Brunswick	George J. Howell, 294 Madison Ave., "	Henry C. Symmes, Cranbury
John J. Bissett, Main St., South River	A. Clark Hunt, Holly St., Metuchen	Ambrose Treganowan, Main St., South Amboy
H. Martyn Brace, 179 High St., Perth Amboy	Henry H. Janeway, 11 Livingston Av., New Brunswick	George W. Tyrrell, 222 State St., Perth Amboy
Charles V. Butler, 139 Albany St., New Brunswick	William P. Keasbey, Perth Amboy	J. Leon White, Main St., South Amboy
Edgar Carroll, Main St., Dayton	John L. Lund, 181 High St., Perth Amboy	John G. Wilson, 186 High St., Perth Amboy
		A. L. Woods, Main St., South River

## MIDDLESEX COUNTY—Continued.

A. Schuyler Clark,  
422 George St., New Brunswick  
S. V. D. Clark,  
89 Bayard St., "  
William E. Condon,  
176 George St., "  
No. members, 40.

Eugene A. Meacham,  
South Amboy  
Daniel L. Morrison,  
Elm Row & Patsn St., N. Brunswick  
William E. Ramsey,  
193 High St., Perth Amboy

HONORARY MEMBERS.  
Henry G. Cooke,  
7 Livingston Ave., New Brunswick  
John C. Holmes,  
Cranbury

## MONMOUTH COUNTY.

Society organized  
Edwin Field, *President*,  
Red Bank  
D. McLean Forman, *Sec'y*,  
Freehold  
I. S. Long, *Treas.*,  
"  
Scudder J. Wooley, *Rep.*,  
Long Branch  
A. T. Applegate,  
Englishtown  
George H. Baker,  
Long Branch  
Simon Baruch,  
"  
E. M. Beach,  
West Long Branch  
J. W. Bennett,  
Long Branch  
R. S. Bennett,  
Asbury Park  
Wm. W. Beveridge,  
Asbury Park  
A. G. Brown,  
Red Bank  
Harvey Brown,  
Freehold  
Henry G. Cook,  
New Brunswick  
Ellis W. Crater,  
Ocean Port  
J. F. Davison,  
Asbury Park  
No. members, 45.

June 16, 1816. Annual meeting third  
V. M. Disbrow,  
Lakewood  
Wm. M. Hepburn,  
Freehold  
D. D. Hendrickson,  
Middletown  
H. A. Hendrickson,  
Atlantic Highlands  
G. C. Hoagland,  
Keyport  
W. H. Ingling,  
Adelphia  
A. J. Jackson,  
Matawan  
Samuel Johnson,  
Asbury Park  
W. R. Kinmouth,  
Farmingdale  
Cyrus Knecht,  
Matawan  
S. R. Knight,  
Spring Lake  
W. U. Kurtz,  
Eatontown  
Wm. MacMillan,  
Perrineville  
Henry Mitchell,  
Asbury Park  
F. C. Price,  
Imlaystown  
P. J. Rafferty,  
Red Bank

Monday in May.  
James Read,  
Sea Bright  
Edgar Roberts,  
Keyport  
Harry E. Shaw,  
Long Branch  
Harry Slocum,  
"  
Chas. H. Thompson,  
Belmar  
C. R. Treat,  
"  
W. W. Trout,  
Spring Lake  
I. B. Wainwright,  
Manasquan  
Wm. B. Warner,  
Red Bank  
Joseph Welch,  
Long Branch  
Walter S. Whitmore,  
Red Bank  
George F. Wilbur,  
Asbury Park  
Alex. Williamson,  
"  
HONORARY MEMBER.  
George T. Welsh,  
Passaic

## MORRIS COUNTY.

Society organized  
H. M. O'Reilly, *President*,  
Morristown  
\*H. B. McCarroll, *V.-Pres.*,  
"  
H. W. Kice, *Secretary*,  
Wharton  
James Douglas, *Treas.*,  
Morristown  
F. W. Owen, *Reporter*,  
"  
N. H. Adsit,  
Succasunna  
C. Anderson,  
Madison  
R. D. Baker,  
Morris Plains  
G. A. Becker,  
Morristown  
C. C. Beling,  
Morris Plains  
A. E. Carpenter,  
Boonton  
A. W. Condict,  
Dover  
I. W. Condict,  
"  
E. P. Cooper,  
Troy Hills  
R. L. Cook,  
Dover  
A. G. Corwin,  
Morris Plains  
H. A. Cossit,  
Morris Plains

June 1, 1815. Annual meeting second  
Harris Day,  
Chester  
H. V. Day,  
Bloomingdale  
Clinton L. Decker,  
Boonton  
G. S. DeGroot,  
Mendham  
B. D. Evans,  
Morris Plains  
J. Willard Farrow,  
Dover  
Levi Farrow,  
Hackettstown  
F. W. Flagge,  
Rockaway  
G. H. Foster,  
"  
W. S. Foster,  
Flanders  
Wm. M. Garrison,  
Morris Plains  
Francis H. Glazebrook,  
Morristown  
Elliot Gorton,  
Summit  
J. B. Griswold,  
Morristown  
H. A. Henriques,  
"  
Fred. C. Horsford,  
Morris Plains  
Geo. L. Johnson,  
Morristown

Tuesday in March.  
P. S. Mallon,  
Morris Plains  
L. L. Mial,  
Morristown  
C. N. Miller,  
German Valley  
Clifford Mills,  
Morristown  
Stephen Pierson,  
"  
J. B. Risk,  
Summit  
Wm. H. Risk,  
"  
J. G. Ryerson,  
Boonton  
Frederick L. Seward,  
Madison  
M. S. Simpson,  
Middle Valley  
E. Sutton,  
German Valley  
J. L. Taylor,  
Boonton  
H. C. Upchurch,  
Kenvil  
Harry Vaughan,  
Morristown  
J. Walters,  
Wharton  
H. S. Wheeler,  
Whippany  
Cuthbert Wigg,  
Boonton

## MORRIS COUNTY—Continued.

T. R. Crittenden,	Dover	A. A. Lewis,	Morristown	Geo. W. V. Wilkinson,	Morristown
G. O. Cummins,	"	A. A. Macwithy,	Riverdale	W. J. Wolfe,	Chatham
* Deceased.				HONORARY MEMBER.	
No. members, 55.				P. A. Harris,	Paterson

## OCEAN COUNTY.

Rem Lefferts Disbrow, <i>Pres.</i> ,	Toms River	Frederick S. Buckingham,	Lakewood	Ralph R. Jones,	Tom's River
Irwin H. Hance, <i>V.-Pres.</i> ,	Lakewood	Eugene E. S. Carrigan,	Point Pleasant	Paul T. Kimball,	Lakewood
Frank Brouwer, <i>Secretary</i> ,	Toms River	Vanderhoef M. Disbrow,	Lakewood	C. L. Lindsley,	"
Harold Pittis, <i>Treas.</i> ,	Lakehurst	Edwin C. Disbrow,	Toms River	George McMillan,	"
Wm. Gray Schaufler, <i>Rep.</i> ,	Lakewood	Alexander M. Hern,	Lakewood		
No. members, 14.					

## PASSAIC COUNTY.

Society organized January 14, 1844. Annual meeting second Tuesday in April.

J. W. Smith, <i>Pres.</i> ,	33 Clark St., Paterson	F. B. Donahue,	387 Main St., "	J. O'Donnell,	Hamilton & Ward Sts., Paterson
J. W. Atkinson, <i>V.-Pres.</i> ,	27 Church St., "	George Fischer,	77 Fair St., Paterson	T. F. O'Grady,	374 Grand St., "
E. J. Marsh, Jr., <i>Secretary</i> ,	190 Van Houten St., "	William Flitcroft,	510 River St., "	H. Parke,	9 Church St., Paterson
D. T. Bowden, <i>Treas.</i> ,	117 Paterson St., "	O. V. Garnett,	154 Straight St., "	J. P. Paxton,	"
W. W. MacAlister, <i>Reporter</i> ,	158 Broadway, "	J. T. Gillson,	391 Main St., "	H. V. Pike,	144 Hamilton Ave., "
John L. Leal, <i>Censor</i> ,	29 Hamilton St., "	M. W. Gillson,	11 Lee Pl., Paterson	John J. Ritter,	16 Smith St., Paterson
J. M. Stewart, <i>Censor</i> ,	181 Van Houten St., "	Philander A. Harris,	26 Church St., "	A. W. Rogers,	285 Broadway, "
M. A. Mackintosh, <i>Censor</i> ,	267 Ellison St., "	J. H. Henggeler,	47 Bridge St., "	B. H. Rogers,	213 Broadway, "
F. E. Agnew,	29 Hamilton St., "	E. L. Henion,	16 Church St., "	John N. Ryan,	275 Passaic St., Passaic
A. F. Alexander,	379 Union Ave., "	W. B. Johnson,	170 Broadway, "	F. R. Sandt,	354 Park Ave., Paterson
George H. Balleray,	115 Broadway, "	C. J. Kane,	349 Grand St., "	C. H. Scribner,	79 Ward St., Paterson
J. H. Banta,	119 Broadway, "	T. J. Kane,	349 Grand St., "	W. R. Smith,	Little Falls
J. V. Bergin,	16 Church, "	F. J. Keller,	379 Totowa Ave., "	R. Stinson,	152 Broadway, Paterson
Charles R. Blundell,	"	Henry Kip,	90 Fair St., "	John J. Sullivan,	51 Passaic Ave., Passaic
W. Blundell,	236 Main St., "	H. H. Lucas,	192 Van Houten St., "	Isaac Surnamer,	201 Van Houten St., "
J. A. Browne,	310 Grand St., "	Joseph Maclay,	160 Broadway, "	M. J. Synott,	Montclair
V. E. Bullen,	156 Broadway, "	Bryan C. Magennis,	Braun Bldg., Market St., "	J. Tattersall,	1042 Main St., Paterson
C. M. Campbell,	642 Main St., "	E. J. Marsh,	600 Park Ave., "	G. W. Terribery,	146 Broadway, "
W. H. Carroll,	11 Jefferson St., Passaic	A. F. McBride,	397 Main St., "	P. H. Terhune,	162 Gregory Ave., Passaic
D. R. Crouse,	84 Bloomfield Ave., "	John C. McCoy,	292 Broadway, "	R. A. Terhune,	162 Gregory Ave., "
James H. Curts,	30 Church St., Paterson	Frank McDede,	908 Main St., "	F. H. Todd,	218 Broadway, Paterson
R. M. Curts,	30 Church St., Paterson	J. R. Merrill,	24 Church St., "	G. E. Tuers,	12 Church St., "
G. S. Davenport,	Garfield	Daniel T. Millspaugh,	43 Totowa Ave., "	A. B. Vanderbeek,	174 Broadway, "
S. DeJager,	83 Bridge St., Paterson	J. P. Morrill,	8 Church St., "	A. Ward Van Riper,	207 Main Ave., Passaic
F. F. C. Demarest,	29 Academy St., Passaic	R. Neer,	Broadway & Bridge St., "	C. Van Riper,	207 Main Ave., "
Edward F. Denner,	221 Broadway, Paterson	W. Neer,	87 Fair St., "	George Vreeland,	127 Hamburg Ave., Paterson
No. members, 80.		W. K. Newton,	379 Ellison St., "	F. Vigna,	35 Ward St., "



## SALEM COUNTY.

Society organized May 4, 1880. Annual meeting first Wednesday in May.

John F. Smith, <i>President</i> ,	W. H. James, <i>Censor</i> ,	W. T. Good,	
Salem	Pennsville	Quinton	
C. M. Sherron, <i>V.-Pres.</i> ,	R. M. Davis,	H. T. Johnson,	Pedricktown
"	Salem	George E. Reading,	Woodbury
Henry Chavanne, <i>Sec. &amp; Treas.</i>	E. E. DeGroft,	B. A. Waddington,	Salem
"	Woodstown		
W. H. Carpenter, <i>Rep.</i> ,	W. L. Ewen,		
"	Alloway		
F. Bilderback, <i>Censor</i> ,	G. W. H. Fitch,		
Salem	Daretown		
N. S. Hires, <i>Censor</i> ,	Dan'l Garrison,		
Salem	Pennsgrove		
No. members, 16.			

## SOMERSET COUNTY.

Society organized May, 1816. Annual meeting second Thursday in April.

J. P. Hecht, <i>President</i> ,	J. H. Cooper,	M. C. Smalley,	
Somerville	Middlebush	Gladstone	
A. L. Stillwell, <i>V.-Pres.</i> ,	H. V. Davis,	J. D. Ten Eyck,	Franklin Park
Somerville	North Branch	H. M. Weeks,	Skillman
J. H. Buchanan, <i>Secretary</i> ,	A. H. Dundon,	E. B. Funkhauser,	Bound Brook
North Plainfield	North Plainfield	Mary E. Gaston,	Somerville
T. H. Flynn, <i>Treas.</i> ,	E. B. Funkhauser,	F. J. Hughes,	North Plainfield
Somerville	Skillman	B. B. Matthews,	Bound Brook
W. H. Long, Jr., <i>Rep.</i> ,	Mary E. Gaston,	J. F. McWilliams,	Somerville
"	Somerville	Josiah Meigh,	Bernardsville
C. R. P. Fisher, <i>Censor</i> ,	F. J. Hughes,		
Bound Brook	North Plainfield		
W. H. Merrill, <i>Censor</i> ,	B. B. Matthews,		
South Branch	Bound Brook		
S. O. B. Taylor, <i>Censor</i> ,	J. F. McWilliams,		
Millstone	Somerville		
J. B. Beekman,	Josiah Meigh,		
Pluckemin	Bernardsville		
No. members, 22.			

## SUSSEX COUNTY.

Society organized August 22, 1829. Annual meeting third Tuesday in May.

Milton N. Armstrong, <i>Pres.</i> ,	Martin Cole,	P. N. Jacobus,	Newton
Newton	Hainesville	Harvey J. McClougham,	"
H. D. Van Gaasbeck, <i>V.-Pres.</i> ,	Jos. G. Coleman,	J. N. Miller,	"
Sussex	Hamburg	John Moore,	Sussex
Shepard Voorhees, <i>Secretary</i> ,	C. K. Davison,	J. B. Pellet,	Hamburg
Newton	Stanhope	J. C. Price,	Branchville
E. Morrison, <i>Treasurer</i> ,	C. E. Dowling,		
"	Sparta		
M. D. Hughes, <i>Rep.</i>	Charles M. Dunning,		
Layton	Franklin		
T. H. Address,	B. W. Ferguson,		
Sparta	Beemerville		
L. G. Burd,	Bruno Hood,		
Ogdensburg	Newton		
No. members, 20.			

## UNION COUNTY.

Society organized June 7, 1869. Annual meeting second Wednesday in April.

John P. Reilly, <i>Pres.</i> ,	J. T. Fritts,	James T. Perkins,	Cranford
215 Elizabeth Ave., Elizabeth	Plainfield	Frederick H. Pierson,	"
Wm. R. Murray, <i>V.-Pres.</i> ,	Joseph Funk,	Henry C. Pierson,	Roselle
Plainfield	615 Elizabeth Ave., Elizabeth	J. P. Probasco,	Plainfield
Horace R. Livengood, <i>Sec'y</i> ,	G. E. Galloway,	Norman H. Probasco,	"
228 Elizabeth Ave., Elizabeth	Rahway	Thomas P. Prout,	Summit
Robert R. Montfort, <i>Treas.</i> ,	William Gale,	Stephen T. Quinn,	Elizabeth
1051 E. Jersey St.,	Westfield	John M. Randolph,	Rahway
Milton A. Shangle, <i>Rep.</i> ,	W. F. Gaston,	I. J. Reason,	Carteret
1148 E. Jersey St., Elizabeth	Plainfield		
F. C. Ard,	James S. Green,		
Plainfield	463 N. Broad St., Elizabeth		
Frederick R. Bailey,	Edgar B. Grier,		
1165 E. Jersey St., Elizabeth	1145 E. Jersey St., Elizabeth		
W. M. Barnes,	J. B. Harrison,		
Springfield	Westfield		
William C. Boone,	Ellis W. Hedges,		
Plainfield	Plainfield		

## UNION COUNTY—Continued.

P. DuBois Bunting, 11 Third St., Elizabeth	B. Van O. Hedges, "	Charles H. Schlicter, 1053 Elizabeth Ave., Elizabeth
Thomas F. Burnett, 249 Court St., "	B. W. Hoagland, Woodbridge	Frederick W. Sell, Rahway
John H. Carman, Plainfield	H. Page Hough, Rahway	W. Updyke Selover, "
W. E. Cladek, Rahway	Carl R. Keppler, 24 Central Park West, N. Y. City	Russell A. Shirrefs, 1158 E. Jersey St., Elizabeth
Marc. L. Clawson, Plainfield	F. A. Kinch, Westfield	Elihu B. Silvers, Rahway
J. Ackerman Coles, Scotch Plains	Samuel Korngut, 116 Bond St., Elizabeth	R. R. Sinclair, Westfield
J. H. P. Connover, 1143 E. Jersey St., Elizabeth	George S. Laird, Westfield	Arthur Stern, 218 E. Jersey St., Elizabeth
F. M. Corwin, Bergen Point	Alfred Lawrence, 1086 Elizabeth Ave., Elizabeth	G. W. Strickland, Roselle
P. B. Cregar, Plainfield	Theodore F. Livengood, 1105 E. Jersey St., "	T. H. Tomlinson, Plainfield
N. W. Currie, "	Monroe D. Long, Plainfield	R. D. Tomlinson, "
Alfred Q. Donovan, 132 E. Jersey St., Elizabeth	J. K. McConnell, Cranford	William F. Turner, 1046 Elizabeth Ave., Elizabeth
Thomas E. Dolan, 250 1st Ave., "	George W. McCallion, 64 Elizabeth Ave., Elizabeth	A. F. Van Horn, Plainfield
A. R. Eaton, Jr., 1159 E. Jersey St., Elizabeth	Thomas N. McLean, 1144 E. Broad St., "	N. W. Voorhees, 297 N. Broad St., Elizabeth
James R. English, Jr., Irvington	Victor Mravlag, 1062 E. Jersey St., "	F. W. Westcott, Fanwood
George W. Endicott, Plainfield	Edward R. O'Reilly, 167 Second St., Elizabeth	Rufus B. Whitehead, 310 First Ave., Elizabeth
No. members, 76.	Albert Pettis, Plainfield	Norton L. Wilson, 410 Westminster Ave., "
	Alonzo Pettit, 116 W. Grand St., Elizabeth	M. K. Willoughby, Roselle

## WARREN COUNTY.

Society organized February 15, 1826. Annual meeting first Tuesday in May.

Wm. C. Allen, <i>Pres.</i> , Blairstown	Chas. M. Williams, <i>Censor</i> , Washington	William Kline, Phillipsburg
C. H. Boyer, <i>V.-Pres.</i> , Riegelsville	W. C. Albertson, Belvidere	L. C. Osmun, Washington, D. C.
Wm. J. Burd, <i>Secretary</i> , Belvidere	Isaac Barber, Phillipsburg	Louis C. Osmun, Hackettstown
G. W. Cummins, <i>Treas.</i> , "	H. O. Carhart, Blairstown	J. M. Keese, Phillipsburg
J. H. Griffith, <i>Rep.</i> , Phillipsburg	Frank W. Curtis, Stewartsville	C. B. Smith, Washington
John C. Johnson, <i>Censor</i> , Blairstown	F. W. Haggerty, Vienna	G. O. Tunison, Oxford
F. L. LaRiew, <i>Censor</i> , Washington	L. B. Hoagland, Oxford	Alva C. Van Syckle, Hackettstown

According to an account in a newspaper, a little girl six years old died of fright recently in Andalusia, Pa. One of the neighbors who had previously frightened the child, so that she fled in terror whenever she saw him, having been seized with a fit, ran screaming and waving his arms toward the little girl. The latter started to run but fell to the ground unconscious and died in a few minutes.

Thirty cases of milk poisoning occurred in Pas-saic in July. The matter was investigated by State Dairy Commissioner Maguire, who traced the contaminated milk to the dairy of Henry and William Hopburn. As it appears that the milk had been insufficiently cooled, the assumption is that the toxic agent was tyrotoxinon.

St. Barnabas Hospital in Newark, is under-going renovation. Besides repainting the whole building, the trustees are installing a complete telephone exchange, connecting all the wards with the new office on the ground floor, and fitting up a dressing room for the staff. The improvements will not be completed for several weeks.

Last July the Aldermen of Paterson turned over the ambulance property belonging to the city to the Paterson General and St. Joseph's Hospi-tals. These institutions have agreed to maintain an efficient ambulance service for which they are to receive \$1,250 apiece per year.

# THE JOURNAL

OF THE

Medical Society of New Jersey.

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SEPTEMBER, 1904.

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THE JOURNAL OF THE MEDICAL  
SOCIETY OF NEW JERSEY.

Whenever a conservative and dignified body, like the Medical Society of New Jersey, makes so wide a departure from long established usage as to begin the publication of its transactions in monthly instalments instead of an annual volume, there should be good and satisfactory reasons for such action.

And it seems only showing proper respect to the judgment of the members of the State Society to give, as briefly as possible, the principal reasons which have led the trustees to set on foot this movement.

For a long time there has been a lack of interest amongst the younger men in the State Society. Many of them have been slow about joining their county societies; and of those who have joined, few have taken that share in the scientific and literary work of the State Society, which they are quite capable of taking.

Whatever the cause of this may be, it is a lamentable circumstance and one that will, unless a change can be brought about, injure the efficiency and retard the development of the State Society.

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Again, frequently some worthy project in which the Society became deeply interested at some annual gathering, has fallen to the ground, because in the long interval before the next meeting, the interest has had time to die out; chiefly owing to the want of some efficient means of keeping the members posted as to the progress of the movement, and of getting their co-operation and

advice at the moment when these were essential.

These are stirring times. Events, both public and private, rapidly take shape. The quack and the charlatan are ever vigilant. They are not waiting for the action of committees that report once a year. In short, no organization, meeting only once annually and having no regular means of inter-communication amongst the members, can wield that influence in public affairs to which the number and position of its members entitle it.

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One of the chief objects of the Medical Society of New Jersey is to promote and forward every public movement intended to enhance and conserve the health, education and happiness of the people. In order to be as efficient as possible in these directions, the Society must be better organized. It must have more members; and the members must be better acquainted with each other and must keep themselves better informed in regard to current events in legislation, hygiene and education than they now are.

Eternal vigilance is not only the price of liberty, it is the price of clean streets, pure drinking water, efficient sewerage and of nearly everything else which the heart of the sanitarian longeth after.

Again, with the present enormous advance in the direction of scientific medicine, the Society needs for its own enlightenment a very high grade of papers and discussions at its annual meetings, much higher than the average of the literary work of the Society in recent years. There is no doubt that such papers and such discussions will be more readily obtainable for the Society meetings if the readers and speakers know that their words will appear in a live journal before the interest excited by the discussion of the subject before the Society has had time to die out.



Another important reason for the establishment of this journal is that at present a great amount of excellent literary and scientific medical material goes to waste in our State every year. We refer to the transactions, papers and discussions of the county and small medical societies. Lectures by Jacobi, McBurney, Starr, James, Smith, Roberts and others have been given before the William Pierson Library Association. Equally eminent men have spoken before our private medical societies; and the physicians of the State have been deprived of the pleasure of reading the words of these leaders of medical thought, because there has been no medical journal in the State of New Jersey to collect and print them.

\* \* \*

Another field in which a journal may do good work is the collection and publication of clinical histories from the various hospitals, asylums and sanitariums throughout the State. There are fifty-seven or eight of these; and if any of them publish good clinical and pathological reports they attract little attention.

It shall be one principal aim of the JOURNAL to get better hospital reports and to have them properly filed in libraries, that shall be accessible to all students and statisticians. Probably few of our readers realize that our public and private hospitals, asylums and sanitariums have an aggregate capacity of over 8,324 beds, which indicates an enormous wealth of clinical and pathological material.

Many institutions probably cannot afford to publish their clinical histories; and others may not have men or women attached to their staffs who are competent and willing to prepare reports of real scientific value. On the other hand, however, we know of thoroughly equipped scientific practitioners,

who are attached to various institutions and who are doing good work of the sort we have alluded to. We shall try to make their work more generally known and more available for study.

Judging from the experience of other state societies that have already started their own journals, numbering now some six or eight, the benefits, which we hope to gain for our Society by this venture, and which we have already hinted at in this editorial, will come to us as they have to our brethren, provided that everyone does his best to make the JOURNAL a success. Every one can help some. Friendly criticism is earnestly invited and reasonable suggestions will be, so far as practicable, carried out. The collection and forwarding to the JOURNAL of interesting news items; the writing of letters to the editor; the preparation of good original papers; and especially the help and co-operation of the reporters of the component societies are earnestly solicited.

The JOURNAL is in no sense the organ of any one man or set of men. It is not meant to advance or break down any personal schemes. It is the mouthpiece of the State Society and asks the good will and kindly attention of every physician, sanitarian and public man in the State.

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### THE MEDICAL SOCIETY OF NEW JERSEY.

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This Society was founded on Wednesday, July 23d, 1766, at the house of Mr. Duff, in the city of New Brunswick; sixteen physicians being present and forming themselves into a "Standing Society and Voluntary Incorporation." The Society then formed continues to this day and is the oldest State Medical Society in the United States.

From the preamble to their constitution, the following quotation expresses so well the spirit that should, and we believe does, animate all medical societies that are of any value to the world or to their members, that we can not refrain from giving it entire: "Whereas, medicine, comprehending properly physic and surgery, is one of the most useful sciences to mankind and at the same time the most difficult to be fully attained, so much so that, indeed, perfection therein is perhaps never to be acquired, the longest life spent in its pursuit always finding something new to occur, and lamenting something still wanting to perfect the art (Wickes)." And so these sixteen worthies, building upon a foundation of modest truthfulness and a sincere desire to perfect themselves as practitioners of medicine, have left behind them a notable organization which has endured almost 150 years and bids fair to last as long as American civilization shall continue.

Previous to 1766 no preparatory education was required of young men entering upon the study of medicine in New Jersey.

The State Medical Society, however, amongst their first regulations, ordained that: "Hereafter no student be taken an apprentice by any member (of the Society) unless he has a competent knowledge of Latin and some initiation in the Greek."

It was also agreed that "No member hereafter take an apprentice for less than four years, of which three shall be with his master and the other may, with his master's consent, be spent in some school of physic in Europe or America."

Here is convincing proof of the power of well directed organization and of the immediate benefit which a live medical society may confer upon any community.

The New Jersey Medical Society, as it was then called, held regular semi-annual sessions until 1775, when the stormy scenes of the Revolutionary War cut them short.

Reassembling in 1781, the meetings were were "sustained with regularity and an evidently increasing interest" until 1795. Up to this time 91 members had been enrolled.

In 1795 a new and independent society was formed and drew so many members away from the meetings of the State Society that these were temporarily abandoned. However, in 1807 the new society went out of existence and the State Society again became active under its charter of 1790. An act to ratify and confirm its proceedings was passed by the State Legislature December 1st, 1807.

The charter which had been granted the Society in 1790 for 25 years expired in 1815. In the following year the Legislature passed a new act of incorporation, to which a supplement was obtained in 1818. This established the Society upon the basis of delegations from the district societies. It also restored the title which had been adopted in 1790, namely, *The Medical Society of New Jersey*, which is our title to-day.

\* \* \*

Our Society now numbers over 1,122 members and represents the regular medical profession in a State having about two-thirds as many inhabitants as the entire thirteen colonies had at the outbreak of the Revolutionary War.

New Jersey is now a rich and powerful State. According to the United States census of 1900 it is the sixteenth of the forty-five states in the number of its inhabitants. It is sixth in the value of its manufacturing industries and in its manufactured products. The value of the former four years ago was \$611,748,930.00, and their output equalled in value one-third that of Pennsylvania and over a quarter that of New York State. New Jersey is the first state in silk manufacture, second in petroleum refining, third in pottery and in chemicals and chemical products, fourth in iron and steel manufactures and in glassware, fifth in leather and in white



woven goods, sixth in distilled malt and vinous liquors, being ahead of Kentucky in this respect, which stands eighth. Newark, our metropolis, is the sixteenth city in the country and Jersey City is the seventeenth.

\* \* \*

When we consider this immense growth in power, wealth and influence which has put our State commercially in the foremost rank, and bear in mind that there is every indication that our development will be more rapid in the future than in the past, have we not every incentive to build up and enlarge our State Society in every way in our power in order to make it worthy of the great state which it represents?

It is the oldest State Society. Its foundation, as we have just seen, was laid in an honest, scientific and progressive spirit. No apologies need be offered for our predecessors, nor for their conduct of the affairs of this Society. Let us bend all our energies to so carry on their work that our successors shall not need to apologize for us.

Let us build upon the foundation so well laid, remembering that much will be required of us because our opportunities are great; and because, in these latter days, science and medicine have at last joined hands and are calling upon their votaries to gird up their loins and to work with renewed vigor against ignorance, prejudice, sloth and disease.

We have received a goodly heritage, let us do our part to hand it down to our children improved, beautified and strengthened.

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A physician's union has been established in Morristown to deal with the delinquent debtor and to impress upon him the necessity of paying the doctor if he expects medical attendance when he is sick. A "black list" will be prepared and all members of the union will be bound not to attend patients who owe their colleagues money. The result of this often-tried experiment may prove interesting. It certainly will be if the Morristown practitioners succeed in solving the problem of how to manage the "dead beat."

## WORSE OFF THAN THE "DUMB DRIVEN CATTLE."

A law recently passed in Ohio, a State further west than New Jersey, and therefore presumably not so highly civilized, seems to place the value of cattle above that of man. We quote from the *Sidney (Ohio) Journal*:

"The legislature did not enact a law requiring patent medicine manufacturers and others to print in plain words on their proprietary products a formula of their contents; but it did provide a law for such an announcement of elements in proprietary foods for animals. By this is meant feed for quadrupeds, and hence the 10,000 breakfast foods so freely advertised for animals of the man and woman kind, are not included. We poor, helpless bipeds must continue to munch the hay and eat the sawdust and drink the brain liquids so liberally recommended by our church journals and ethical magazines, as heretofore, in ignorance of the specific elements therein contained. Here is a case where 'the dumb driven cattle' have the advantage of us."

There is a refreshing sound of common sense in the above quotation. The lay journals, it may be suspected, have really more sense and discrimination in the matter of this same patent medicine nonsense than any one has a right to infer, from their conduct. So long, however, as there are a large number of suckers born every minute, who will buy anything that they see advertised and so long as there is good money to be got by humbugging the people, the newspapers, especially the religious weeklies, will join hands with the purveyors of patent medicines and breakfast foods to beguile the unsuspecting populace for gain.

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A medical journal must be absolutely free and independent and this it can never be if it is the property of some individual or company and not the property of the State Society. In privately owned journals, I think it may stand without discussion, dollars will ever be the first, rather than the last, consideration. Right, too much under the influence of the dollars, is very liable to take on a somewhat peculiar and mottled appearance, and the elasticity of rules or ethical provisions is apt to be somewhat stretched. Now while dollars should by no means be ignored in conducting a State Association journal, they should be the last and not the first consideration when any question of policy, of ethics or of professional conduct is to be considered. The State Society should have a mouthpiece (its journal) and through it should speak at all times to its members. It should speak with profound courage and utter straight-out truths for the help and the guidance of its members, and for their protection. That a State journal may do these things and may adhere strictly to the right path in the matter of its advertising, and still build up enough productive pages to pay, has been demonstrated.—*Philip Mills Jones, in the California State Journal of Medicine.*





**WALTER B. JOHNSON,**

118th President of the Medical Society of  
New Jersey.

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**ITEMS.**

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Drs. Edward J. Ill, Stephen Pierson, Chas. J. Kipp and Alexander W. Rogers are taking their vacation in Europe.

Dr. John H. Musser, president of the American Medical Association, and Dr. William H. Welch, professor of Pathology in the John Hopkins Medical School, will deliver addresses before the Essex County Medical Society during the coming fall and winter.

It is expected that Professor William W. Keen, of Philadelphia, will speak before the William Pierson Library Association this winter. Drs. Stephen Lewis Pilcher, of Brooklyn, and J. Riddle Goffe, of New York, have also promised addresses before this society.

Dr. Winthrop D. Mitchell, of East Orange, is recovering from an operation for appendicitis.

Dr. William J. Chandler has been elected president of the Society of the Alumni of Bellevue Hospital, New York City.

On July 28th the Italian physicians of Essex County effected an organization to be called the Italian-American Medical Society of Essex County. Dr. Joseph M. Malatesta, of Newark, is temporary president and Dr. C. C. Berardinelli, secretary.

According to the *Sunday Call*, a curiously formed horse was shown at a clinic before the Veterinary Association of New Jersey, held in Newark, in July. A tube was passed through one nostril of the horse through the *larynx*, the throat and along the alimentary canal into the stomach.

The Board of Health of the City of Paterson, have forbidden the use of ice cut from the ponds near the river, in the manufacture of ice cream, but allow its use for cold storage purposes.

The Paterson Isolation Hospital is making arrangements to receive cases of erysipelas, thus relieving the general hospitals of one source of infection.

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**OBITUARY.**

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**Dr. Albert W. Warden**, of Weehawken, died in Christ Hospital Jersey City, August 9th, from gangrene. He was 47 years old and unmarried. He graduated at the Medical Department of the New York University in 1880. He was a member of the State Society and of the American Association for the Advancement of Science.

**Dr. George V. Wenner** died at Milford, July 19th, from an overdose of cocaine. He was forty years of age and unmarried. He graduated at the Meidico-Chirurgical College, in Philadelphia, in 1896.

**Dr. Henry Bruce McCarroll** died at Morristown, August 17th. He was graduated from Yale College in the famous class of '78 and also from the College of Physicians and Surgeons of New York in 1881. He served two years in the Presbyterian Hospital, New York, serving also for four years as instructor in general medicine in the New York Post Graduate School.

He practiced for a time in New York City, moving to Morristown in 1898. He was police surgeon of Morristown and visiting physician to both All Souls' and Memorial Hospitals. He was a member of the Medical Society of New Jersey.

**Dr. Romeo F. Chabert**, one of the oldest physicians in Hudson County, and for twenty years a summer resident of Asbury Park, died on August 3d at his home in Seventh avenue. He was seventy-six years old, and for forty-eight years had practiced medicine and surgery in Hoboken. He was born in London in 1828, and came to America when seven years old. He was a member of the New Jersey State Medical Society, the founder and consulting surgeon of St. Mary's Hospital, Hoboken; consulting physician of the Bayonne Hospital, and for many years a member of the board of managers of the State Hospital for the Insane at Morris Plains. Six daughters and one son survive him.

## Presidents and Secretaries of the County Societies.

COUNTIES.	PRESIDENT.	SECRETARY	ADDRESS OF THE SECRETARIES.
Atlantic.....	Theo. Senseman,	Edward Guion...	1408 Atlantic Ave., Atlantic City
Bergen.....	Wm. L. Vroom,	Daniel A. Currie.....	Englewood
Burlington.....	J. H. Pugh,	George T. Tracy.....	Beverly
Camden.....	Joseph H. Wills,	Paul M. Mecray.....	405 Cooper St., Camden
Cape May.....	Joseph C. Marshall,	Daniel K. Webster.....	South Seaville
Cumberland.....	Mary J. Dunlap,	Ellsmore Stites....	Bridgeton
Essex.....	Richard C. Newton,	Archibald Mercer....	31 Washington St., Newark
Gloucester.....	William Brewer,	George E. Reading.....	Woodbury
Hudson.....	Christopher D. Hill,	Louis W. Dodson...	660 Jersey Ave, Jersey City
Hunterdon.....	Leon T. Salmon,	Obadiah H. Sproul.....	Flemington
Mercer.....	A. Dunbar Hutchinson,	D. B. Ackley.....	Trenton
Middlesex.....	Frank M. Donahue,	Wm. M. Moore.....	New Brunswick
Monmouth.....	Edwin Field,	D. McLean Forman.....	Freehold
Morris.....	H. M. O'Reilly,	H. W. Rice.....	Wharton
Ocean.....	Rem. L. Disbrow,	Frank Browner.....	Toms River
Passaic.....	J. W. Smith,	E. J. Marsh, Jr.....	Paterson
Salem.....	Jno. F. Smith,	Henry Chavanne.....	Salem
Somerset.....	J. P. Hecht,	J. H. Buchanan.....	North Plainfield
Sussex.....	Milton M. Armstrong,	Shepard Voorhees.....	Newton
Union.....	Jno. P. Reilly,	Horace R. Levensgood.....	Elizabeth
Warren.....	Wm. C. Allen,	Wm. J. Burd.....	Belvidere



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### ADDRESS BY THE THIRD VICE-PRESIDENT.

"Some of the Channels through which Recent Investigations have proven Typhoid Fever may be Transmitted."

BY H. W. ELMER, M. D., BRIDGETON, N. J.

The object of this paper is not to present facts relating to the diagnosis, pathology or treatment of Typhoid Fever, but to endeavor to attract your attention and increase your interest in the results of the recent investigations throughout the world, as to the causes and channels through which it has obtained and maintained such a foothold.

Of the antiquity of Typhoid, there can be no doubt, but a description of it as a distinctive disease, is of comparatively recent date. Even attempts have been made to trace it back to the time of Hippocrates; but the evidences presented have failed to carry anything like moderate conviction. No mention of autopsies, following deaths from Typhoid, can be definitely found in the medical literature of that day, and not until the be-

ginning of the seventeenth century are any autopsies of fatal Typhoid cases reported, showing any intestinal lesions. It was not, however, till the nineteenth century that the unfailling difference between Typhoid and all other diseases was pointed out. During the first quarter of this century, Bretonneau, Pettit, Serres, and others, by their indomitable labors at the bedside, and by their pathological studies, did more to place the whole matter in a clearer light. The publication of their conclusions only gave rise to persistent work and discussion. Louis, of France, was devoting his time to the study of the disease, and two American pupils, studying with him, have the honor of being the first to advance arguments which expelled all doubt of the similarity of the pathology of Typhus and Typhoid Fevers.

James Jackson, of Boston, in '30, '33, '34, published his observations in regard to the lesions of Typhoid, and Gerhard, in '35, his experience in Typhus at the epidemic in the Philadelphia Hospital. Since this time no dispute as to the pathological differences has had any standing.

It being settled concerning the pathology, search was begun for the specific cause, and



in 1871, attempts were made to identify special organisms, but no definite conclusions were reached till 1881, when Eberth discovered the bacillus now so universally acknowledged to be the true cause of this disease.

Having thus cursorily reviewed the history of Typhoid, let us direct our attention to the causes and channels by which this fever may be transferred from place to place and from individual to individual. For many years, water was supposed to be the only channel for transportation, and while future investigation has proved it to be a very frequent carrier, it is not the only agent. The appearance of the water, so far as the color or apparent purity is concerned, is not an indication of its healthfulness. A striking illustration of the harmlessness of what appeared to have been unhealthy water is cited by Major Robert Caldwell, of the English army. It is narrated by him that he was ordered to a small Arab settlement situated between the first and second cataracts of the Nile, about 800 miles from Cairo. He was soon ordered to Halfa in charge of a company of mounted infantry. His progress up the Nile and through the canals, was exceedingly slow, owing to the weight of the barges containing the horses, and the time occupied was at least two months. There seemed to be no doubt that the men did not confine themselves to boiled water for drinking purposes. Filtration simulating anything bordering on the scientific, was unknown and the only method which approached it was to allow the water to trickle through the pores of a filthy earthenware jar and collect in another jar equal in filthiness. He states that from the time he left Cairo till he reached his destination, Halfa, not one man exhibited any symptoms of serious disease. Showing, no matter how repulsive the water may appear, it is not always death-dealing. Yet we have only to recall the epidemic of Ithaca, with 13,000 inhabitants, where 237 cases occurred in less than a week. This was traceable, by examination, to impure water, which had been known to exist for years, but

had been deliberately disregarded by the local authorities. Or, take the pronounced epidemic at Butler, which was caused by the contamination of the streams from the mountains, where there had existed a case of Typhoid three months previously, and from which had been obtained the water supply. To Massachusetts belongs the banner for persistent and wonderfully effectual efforts to secure and maintain a pure drinking water-supply for all of her inhabitants. It has followed that, in proportion as her citizens use the water provided, in this proportion has Typhoid subsided. *E. g.*, from a percentage of deaths of 92.9 per cent. per 100,000 of inhabitants in '65, the mortality was reduced to 19.9 per 100,000 in 1901. Did time permit, similar statistics could readily be cited.

Water, in another form, ice, has been accused by some and by others held in doubt, as the conveyor of the Typhoid bacillus. Sedgwick and Winslow have the reputation of having performed the most elaborate investigations and experiments as to the effect of cold on the bacilli, and as a still further endorsement, their conclusions coincide with those of the Massachusetts State Board of Health. The conclusions reached are that, at intervals, artificial ice made from impure water and used soon after manufacture, may possibly be a menace to the public health, and in the same manner natural ice, if used in a short time after cutting, might retain sufficient virus to excite disease. There is some doubt about this theory, for we know that New York, Lowell and Lawrence, Mass., have not by any means a supply of ice from pure water, yet, the statistics do not prove any Typhoid traceable to this source, without a doubt. The conclusions arrived at by the Massachusetts State Board of Health are that, while clear ice from polluted sources may contain a small percentage of impurities, that it is not to be regarded as injurious to health, but that snow-ice or ice manufactured by flooding, is likely to contain a large proportion of impurities that could be avoided.

Another very common channel of infection is milk. It has frequently been found to have been contaminated with water, infected with bacilli, in washing the vessels, in diluting the milk and in many cases where those who were sick had already contaminated it. Kober recently tabulated 195 epidemics of milk Typhoid, and found strong probabilities that 148 of these originated at the farms, and in 67 cases the germs had soaked into the well from which the water had been obtained, while in 16 cases the water had been deliberately used to dilute the milk.

Herr Carl Bruck has made a number of experiments on butter and has decided that butter made from contaminated cream contained bacilli, and in one case, the cans had been washed in water which had been infected from well-known sources. Other well-known sources of infection are the oyster and shellfish. These are fed by being supplied with nourishment from the water, which, if contaminated, renders this food product poisonous to those partaking of it. This was proven in an elaborate investigation ordered by the French and English Governments. The conclusions arrived at were that (1) that the time occupied between the eating of the oysters and the outbreak of the fever would correspond with the time acknowledged to be necessary to develop the disease. (2) There was no other condition common to all which could be considered even a casual element in the disease. (3) These oysters had not only been exposed to sewage waters, but the sewage actually contained the Typhoid bacillus. At the time of the epidemic which existed at Middletown, Conn., in '94, it was found that those students who ate the cooked oysters escaped, while those who ate them raw, suffered with Typhoid. We all probably remember the epidemic which occurred not long ago in this city (Atlantic City), and that by a very diligent search the cause was discovered to be the oysters which had been "laid out" in contaminated sewage water.

Baginsky, in speaking of Typhoid in

children, formerly considered comparatively rare, but of later years known to be of greater interest and frequency, thinks Typhoid in sucklings is often mistaken for indigestion. He states that boys are more susceptible than girls, owing to their chances of infection. He comments on the conclusion arrived at by Vaughn, that "flies are the source of contamination," and feels sure that he has observed the same thing almost to a certainty. In fact, the Typhoid bacilli have been found on the body and feet of the fly and could be readily deposited on the lips or hands of sleeping infants.

Dr. D. P. Barringer, of the University of Virginia, thinks the great prevalence of Typhoid fever might, with a great deal of assurance, be ascribed to the defective toilet arrangements of the railroad cars.

Within a day or so the following announcement was made in one of our daily papers, which gives us the assurance that one of the railroads, the Lehigh Valley, has made an attempt at least to furnish the best sanitary cars to the travelling public on its line:

"The Lehigh Valley Railroad has received the first consignment of improved Pullman sleeping cars sent to any eastern trunk line, and they will be used on the Black Diamond Express, running from New York and South Bethlehem, by way of Buffalo, to St. Louis. The cars will be brought into Philadelphia on their initial trip, and will be on exhibition for a few hours at the Reading Terminal. The new cars are without the fancy grill work now in vogue on all Pullman cars, and are built to prevent the spread of typhoid and consumptive germs.

"The cars unite all the latest improvements of the Pullman Company and are models of simplicity, elegance, comfort and strength. Their interiors are of solid mahogany, and are finished in oil. The seats are upholstered in a figured rich olive green, with velvet green carpets of a color in harmony. They are lighted with electricity, and each berth has two electric lights, so that its occupant, by the touch of the electric button, controls the light for reading or other purposes. The toilet and smoking rooms are fitted with disappearing wash-stands.

"The cars have no filligree or tapestry ornaments, and the ventilation is after the latest improved system. The cars will be operated between South Bethlehem and St. Louis, and will run by way of the Lehigh Valley, the Lake Shore and the Big Four systems, in connection with the through trains planned between Philadelphia and the Louisiana Purchase Exposition at St. Louis."



All praise and honor be rendered the Lehigh Valley Railroad, but it is said, on good authority, that other of the larger roads have the same or like improvements under way.

It is acknowledged that 80,000 passengers pass over each mile of track in the United States, in a year. It is not at all improbable that many of them are either in the incipient or in the convalescent stage of Typhoid, and may scatter along the track infectious material, contaminating the streams of water which are so often crossed by the lines and very often used for drinking purposes. Then, too, there must be some contamination of the dust, which on account of the increase of the speed of the trains, is becoming greater than ever. This dust is inhaled by the track-hands and it is acknowledged that they furnish the largest percentage of cases of Typhoid among the railroad employees. This dust is liable to contaminate the food served, and those of us who have seen the employees place ice in the coolers from the top of a dirty car, are apt to have our thirst appeased at once.

In conclusion, what is becoming in the members of our noble profession, in view of the enormous inroads made by Typhoid into the population of our country and under so many uncalled for circumstances? As stated in the beginning, water may be considered the most frequent channel, directly or indirectly, for the transportation of the bacilli, but we must acknowledge that the bacilli must be in sufficient numbers and the victim in the proper condition physically, to cultivate them. Nevertheless, it is our duty to urge upon the officials having the care and oversight of the water supply, to exercise the utmost care and vigilance to insure a constant supply of pure water. A large fire occurs in one of Chicago's theatres. From the defective modes of exit a panic is produced and no small number of inmates are killed or wounded. As soon as the public press has announced the fact, in all the larger cities all theatres are placed under the strictest

surveillance of the inspectors; some closed for proper repairing; some permanently condemned and the strictest measures taken to prevent the loss of life or accident. What a contrast in the efforts to stop an epidemic of Typhoid fever. For instance, take the outbreak in Ithaca; it was known for some time before the actual outbreak of the epidemic that the water supplied for drinking purposes was far from what it should have been, but no effort was made to remedy it. In Butler, where the water supply was owned by a corporation, it was not on account of ignorance that Typhoid obtained such a hold, but from indifference. It has been stated that an association has been formed with the intention of bringing suit against that corporation, and it has been decided in the courts, that corporations failing to exercise more than usual care in furnishing pure water for drinking purposes, are liable to a suit for damages. Let us then, increase our efforts in endeavoring to persuade those in authority to exercise more vigilance in their inspections. At one time cure was the aim of the profession, but now it is prevention. There is an individual responsibility. We can do a great deal by stricter instructions in individual cases and by insisting on these being carried out in detail, by the nurses. Insist on the greatest care not only of the feces, but also of the urine. Dr. Hubert has found the bacilli more plentiful in the urine than in the feces and cites the proof that in examinations made after convalescence had been established two weeks, he found the bacilli present in 48 per cent. in the urine and only in three per cent. in the feces. Nurses should see that their hands are thoroughly disinfected after handling the vessels used and the clothing should be changed as if preparing for a surgical operation. In *The Journal* of April 23rd, Dr. Rufus I. Cole of the John Hopkins Hospital, gives a most excellent and exhaustive paper on the prevention of Typhoid fever. He advises the most thorough disinfection of



the hands, the feces, urine and everything in any way connected with the patient. It is well worthy a careful perusal, and I refer it to your notice.

Now let me refer to the commercial aspects of these epidemics. The main reason offered by municipalities for not furnishing a proper pure water supply, is the expense; but it can be readily proven that, while the expense cannot be denied, it can also be shown that sickness and death cost a good deal more. Plants for the providing of a water supply can be so managed, if honestly conducted, as not only to pay the interest on the bonds issued to build them, but also to provide a sinking fund for the retirement of the bonds. This is so common that it is unnecessary to cite cases.

It is difficult to imagine that human life and energy have a standard value, somewhere in the neighborhood of \$10.00 per week for the average man, and \$2,000 for the loss of the average life. It has been computed that with fifty-five cases of Typhoid reported annually, which does not seem excessive, with a death rate of five, would mean a cash loss to the community in which it occurred; and taking five weeks as the average period of confinement for each patient, there would be a loss of \$50, and another \$50 for nursing and medical attendance, the total cash loss would be in the neighborhood of \$15,000, which would go quite a distance towards paying the interest on a considerable amount of water bonds.

If I have, in the least degree, aroused your interest in the possibility of your exerting your influence more and more towards measures calculated to incite the local authorities to a closer attention to the welfare of the community in which they live, and thus save valuable lives, I shall be compensated fully, for I am sure that if public conscience and public consciousness can be aroused, the demand for pure water will be heeded. Certainly the present waste of life is shameless, and a frank sacrifice to carelessness and lack of conscience.

## THE AGENCIES THROUGH WHICH THE INFECTION OF TYPHOID FEVER IS DISSEMINATED.

By W. B. WARNER, M. D., RED BANK, N. J.

Among the many problems to the solution of which modern sanitary science is devoting her best energies is that of the eradication of typhoid fever.

With the history of death, commercial stagnation, and physical suffering with which the disease is associated, it is inevitable that humanity, and especially the modern sanitarian, should look upon typhoid fever as a mortal enemy with which he is waging a ceaseless and bitter warfare. In order to fight a danger intelligently, it is necessary that the danger be understood. With this end in view, a summary of our knowledge of the means by which this disease is continued upon the earth, must be of profit. Such a summary, therefore, is the purpose of this paper.

It is now generally accepted as a fact, that the infection of typhoid fever resides primarily in a specific bacterium which has been called the bacillus of Eberth. This organism has been known for a comparatively long time. Recklinghausen found it in 1871; Klein, Sokolof, Brouitz and Fischl in 1878; Bouchard in 1879; and soon afterwards Eberth, Klebs, Friedlander and Gaffky. Eberth described the typhoid bacillus in 1880 and demonstrated its presence in the spleen and diseased intestinal glands in typhoid cadavers. Eberth, Koch and Gaffky demonstrated and established the fact that this special microorganism is always associated with typhoid fever. Two of the three requirements of Koch's law are fulfilled by the typhoid bacillus, viz.: It is constantly present, and it can be caused to grow specifically in various media outside the body. The third requirement, the production of the disease experimentally by the cultures has not been met, with any degree of certainty, but many observers think this is owing to the natural immunity of the animals which have been used for experimentation. Twenty years ago Bouchard asked the question still unanswered, "Do we know that there exists an animal species liable to contract typhoid fever?"

However this may be, and whether the disease is caused by the germ itself or by a ptomaine which is secreted from the bacillus, called by Brieger typho-toxin, or by the toxalbumen of Brieger and Frankel, the fact still remains, that the bacillus of Eberth is constantly associated with typhoid fever, and is doubtless the factor in which the infection primarily resides.

The source or center from which typhoid infection emanates is *always* a person sick with typhoid fever. The disease never occurs *de novo*. Whenever and wherever typhoid fever exists the infection has originated sometime and somewhere, from a previous case of the same disease. The importance of this proposition can not be overestimated.

Present day science declares that there is absolutely no evidence that the infection is ever elim-

inated by the sputum, or in any way from the respiratory tract. Bouchard found the typhoid bacillus in the urine more than twenty years ago. An editorial in *The Journal of the American Medical Association*, March 9th, 1901, says that the bacillus is found in twenty-five per cent. of all typhoid urines; and Neufeld contends that a given quantity of urine contains a larger number of typhoid germs than a similar quantity of feces. W. H. Welch emphasized the importance of a recognition of the urine as a source of danger in a paper read before the American Medical Association, and reported in the *Medical Record* of May 16th, 1903.

The chief factor in the propagation and diffusion of typhoid infection is the alimentary canal, through the agency of the fecal discharges, and from this source undoubtedly arise an immense majority of the cases of typhoid fever.

In order to intelligently carry on an aggressive work against this disease, it is most important that we understand the means, or the methods or the agencies by which the infection residing in the bacillus of Eberth or in its toxic-products is disseminated.

Reed, Vaughn and Shakespeare in their experimental work have claimed that a large number of cases were attributable to direct transmission.

Undoubtedly many cases arise from carelessness of untrained attendants in handling clothing, bed linen, sick room utensils, &c. R. H. Firth and W. H. Horrocks, in the *British Medical Journal*, September 27th, 1902, report some experiments with various fabrics treated with cultures and fresh typhoid feces and allowed to dry. The typhoid bacillus was recovered within periods ranging from nine to seventy-eight days. This shows conclusively that the careless management of details within a sick room, may be far reaching in its baleful results.

The consensus of opinion is that drinking water stands first as a transportation agent of typhoid infection. Innumerable instances are on record of serious epidemics having been caused by the pollution of water supplies. Notably the celebrated epidemic of Plymouth, Pa., in the year 1885, and the recent one in Butler, Pa., could be cited.

The epidemic which occurred in the summer of 1903 in Lowell, Mass., is interesting. Dr. Harrington, of Lowell, reported this outbreak in the *Journal of the American Medical Association*, December 19th, 1903. Briefly, this epidemic was caused by pollution of the drinking water during the progress of a large fire. Usually the domestic supply and the fire supply were separated by a check valve. While the fire was raging, the check valve failed to work as it was intended to, and the drinking water became infected by the fire supply which was being pumped from the polluted Merrimac River. Although the defective valve was discovered and repaired seven hours after the fire, one hundred and seventy-four cases of typhoid were attributed to this accident.

In the Ithaca epidemic six hundred and eighty-one cases occurred with a mortality of fifty-one. M. T. Sudler, in the *Philadelphia Medical Journal*, April 11th, 1903, calls attention to the fact that many months before the epidemic occurred the water from "Six Mile Creek" had been found from bacteriological and chemical examination to be impotable, and that during the epidemic the

infected persons were those who had obtained their water supply from this source; those who drank water from other sources were comparatively free from the disease; while those who had used boiled water escaped entirely.

The *Journal of the American Medical Association* of March 12th, 1904, in an editorial calls attention to a point which is most important—that an infected water supply of a large city is far reaching in its pernicious influences, inasmuch as it is the direct cause of the scattering of foci of infection far and wide, through the constant stream of visitors coming and going. It points out that Pittsburg is probably responsible for the frequent outbreaks of typhoid in Western Pennsylvania. It says "It is clearly impossible to calculate how many persons may have contracted typhoid fever during visits to the metropolis of Western Pennsylvania, and have returned to their homes to furnish material for fresh outbreaks."

Aside from the water systems of cities and towns the ordinary well of the rural districts often becomes infected. In my own town previous to the introduction of an artesian water system, typhoid was becoming alarmingly frequent. Many of the wells about the town were unquestionably infected. The introduction of the public water system made a marked difference in the frequency of the disease, and as the system was extended and was more generally used, there was a gradual and certain decline in the number of cases of typhoid. In 1890 I was in attendance upon a case of typhoid fever which had been imported from New Haven, Conn. There had not been a case of typhoid in this neighborhood for years. Within three weeks there were three more cases in the same house. The explanation was, that urine and washings from a bed pan which was being used in the sick room and carelessly disinfected were being thrown into a wooden trough which, together with a tile drain carried wash water from the well to a sunken barrel in the back yard. The tile nearest the well was found to be broken and a large percentage of the drainage had found its way by a short route to the interior of the well. Only one inmate of the house (a young lady) escaped the disease, and she drank boiled water from the day the first case developed. I need not say that this method of disposing of these sick room products was employed without my knowledge.

P. Frankel in a German medical journal, March 21st, 1901, tells of an epidemic which occurred in Gottingen in the summer of 1900. The first series of cases, twenty-six in number, were all traced to an infected well at an inn. Twenty-five cases in the second series were known to have been infected from the first series. Some of the second series washed the clothing of members of the first series.

It was but a comparatively short time ago that infected water was thought to be probably the only means of conveying the disease from the sick to the healthy, and although in the light of recent scientific investigation this is now known to have been a fallacy, yet frequently the physician will still charge up his cases to infected water and let it go at that.

A chain of circumstantial evidence can easily be thrown around a suspected well, which will satisfy the mind of the average layman.

But because a well is lower than its normal level, or contains organic matter to the point of



turbidity is no reason why to it should be ascribed the cause of a typhoid outbreak. For, unless a previous case can be connected with the well, or a bacterial examination shows the water to be specifically contaminated, the source of infection should be sought for elsewhere.

This tendency to lightly charge the water supply with the causation of typhoid outbreaks called out an article by Borntreger of Germany in 1901, in which he says that too much attention is paid to the search for a cause for typhoid fever, in the pollution of water supplies, to the exclusion of other methods of infection.

Milk easily stands near the head of a list of those agencies by which typhoid infection is disseminated. The use of polluted water for the washing of cans and the dilution of the milk, is the method by which the typhoid bacillus is introduced into the milk and thereby scattered abroad. Schlegtendal in 1901 cited twenty-four epidemics of typhoid which had been reported in German medical literature and which had been attributed to milk infection. In the *Medical Review of Reviews*, November 25th, 1903, Ernest J. Lederle, Ph. D., Commissioner of Health, New York City, reports that during the summer of 1902, eighty cases of typhoid in one of the boroughs of New York were traced to one case of the disease in the family of one milk man. The well was found contaminated.

In the *Journal of the American Medical Association*, February 15th, 1902, W. E. Harriman reports an epidemic which occurred in the Iowa State Agricultural College which was clearly traced to the milk supply, the milk man having had a case in his family. There were forty-two cases treated at the college, of which two died; twenty-three cases were treated at their homes, of which three died.

In my own township during the summer of 1903, seven cases were traced to one milk supply. This dairy was inspected by the State Board of Health and the sanitary conditions were found to be so bad that they ordered immediate improvements. At this same time in a family who lived four miles distant from any of the seven cases mentioned, were developed six cases. These six cases had been summarily attributed to a well on the premises, for no other reason than that the well was abnormally low. No other source of infection had been sought for. It was subsequently learned, however, that these six cases had been supplied with milk from the same dairy as the seven cases first mentioned. The Philadelphia Bureau of Health found in an epidemic in one City Ward, that of seventy-eight cases of typhoid forty-one were traced to one milk man who had the disease in his family.

The bacillus of Eberth has been found in butter. In regard to the transmissibility of typhoid infection by this dairy product, I quote verbatim the following from the *Medical Age* of Detroit:

"Bruck (*Deutsche Med. Wochenschrift*, Nov. 26, 1903) made the following experiments: Commercial milk was infected with typhoid bacilli. The cream separated and then made into butter, and in every instance the results showed that the typhoid bacilli were separated with the cream and were found in the butter. In order to simulate natural conditions in the manufacture of butter the cans used were rinsed (a) with pure culture of ty-

phoid bacilli, (b) with a natural typhoid stool. The latter experiment was modified by taking 500 cubic centimeters of water, mixing it with one cubic centimeter of feces and centrifugalizing, and the supernatant fluid was used to wash out the can, 500 cubic centimeters of cream being used to make the butter. In another experiment a piece of linen three centimeters long, contaminated with typhoid stool, was washed with 500 cubic centimeters of water and the washings used to rinse the can. In all these experiments the results were the same, the butter being found infected with typhoid. The virulence of the typhoid bacillus was found to be retained twenty-seven days, and in the first few days there was an apparent multiplication. Many typhoid cases in which the cause of the infection cannot be traced may be due to infected butter."

Oysters are now known to contain the bacillus of typhoid. The French Academy of Medicine, June 30th, 1896, voted to the effect that oysters taken from localities where there is danger of infection, should be exposed for eight days to the action of pure sea water. Sacquepee, in "Review of Hygiene," July, 1902, reports an epidemic of typhoid which occurred at Rennes in 1901, which was clearly traced to a contaminated oyster bed, from which oysters had been extensively distributed. In the *Medical Magazine* of August, 1903, Nash gives an account of an examination of the population of "Southend-on-Sea" in which he found that two hundred and fifty of a total population of 33,000 were all the year round eaters of shell fish. Fifteen hundred ate shell fish during the oyster season only. Among the eaters of shell fish typhoid fever occurred in 51.25 per 1,000; and in the non-shell fish eaters the attack rate was only 0.75 per 1,000. Among the employes of shell fish dealers the attack rate was 160 per 1,000.

In Archives of Experimental Medicine (*Arch. de Med. Experimental*), 1901, is an account of certain experiments conducted by Wurtz and Bourges for the purpose of determining as to the danger of eating raw vegetables which had been sprinkled with water containing typhoid bacilli. The plants selected were lettuce, radishes, and cresses. The bacillus was recovered in every instance. The *British Review of Reviews* of January, 1904, says that in the metropolitan borough of Hackney, a typhoid epidemic had been traced by Dr. J. King Warry, the medical health officer, to water cress. Seventeen samples of cresses were obtained from dealers who had supplied the patients, and a bacteriological examination revealed the fact that these specimens were polluted with organisms of the colon-bacillus type, and the water from one of the water cress beds contained fifty colon-bacilli per c. c. These beds were found to be the chief source of the outbreak, and were fed by almost undiluted sewage from the badly polluted river Lea. All ordinary sources of infection, such as water, milk, and sanitary defects were excluded.

In regard to so-called air borne infection, H. E. L. Canney, in the *British Medical Journal* (Aug. 24th, 1901), criticizes the reports of some typhoid outbreaks in the army in India when infection was said to have been air borne. He says that where the men are protected from danger of polluted water and from other ordinary sources of infection, typhoid will disappear.

H. H. Tooth, in the *Lancet* (March 16th, 1901), directs attention to the importance of sand-storms



in the dissemination of typhoid bacilli. Articles of food and water may easily become contaminated through blowing about of infected sand and dust.

Another agent of dissemination of the disease under consideration, which until a comparatively recent period has attracted but little attention from scientists, is the common house fly. Although for several years this subject has been under a rather desultory investigation, it has been principally since the Spanish-American War, when many camp outbreaks were attributed to flies, that the subject has been most industriously studied.

Ficker (*Medical Review of Reviews*, Sept. 25th, 1903) has isolated typhoid bacilli from flies, which had been caught in a house where there were eight cases of the disease. He also found that flies were able to convey the bacilli for twenty-three days after contact with infected matter. A. Hamilton has reported (*Journal American Medical Association*, February 28th, 1903) an investigation of a typhoid epidemic in Chicago. Her studies were principally confined to one ward where the sanitary conditions were bad. Fifty-two per cent. of the houses had either defective plumbing, outdoor privies, or no sewer connections. Flies caught in the undrained privies, on the fences in the yards, on the walls of houses, and in the rooms of typhoid patients, were used to inoculate eighteen culture tubes. From five of these tubes the specific bacillus was isolated.

Firth and Horrocks, of Netley (*British Medical Journal*, Sept. 27, 1902), found in a series of experiments that house flies could convey enteric infective matter from specific excreta or other polluted material, to objects on which they may walk, rest or feed, and that such infective matter may be attached to their heads, bodies, wings and legs.

It may be easily seen that the fact of the house fly being a common carrier of the bacillus typhosis, opens up a vast vista of possibilities.

It has occurred to the writer that perhaps some cases of typhoid, whose origin is obscure, might be traced to bathing in polluted water. Bathers and especially swimmers, purposely and accidentally, take quantities of water into their mouths. Should this water be specifically infected, many bacilli could easily be introduced into the alimentary canal. The writer has had two cases which he was inclined to charge to this source of infection.

The methods by which typhoid fever infection is conveyed from the sick to the well, being understood, the problem of prevention could be easily solved at least *theoretically*, by the thorough policing of water sheds, and the employment of trained and salaried dairy, and general sanitary inspectors. But *practically* these matters require moral and financial support from the public, and these requisites the people of the present day give grudgingly. They are not keenly alive to the vast importance of the subject.

In many rural districts, and even in some towns of considerable importance where foci of infection frequently exist, the people are not only apathetic but actually belligerent. It thus appears that a necessary preparatory step to an active and efficient sanitary crusade, would be the education of the people. If the youth of the country through the public schools could be taught ele-

mentary and lucid sanitary science, future generations at least, could more easily understand the enormous importance of this vital subject, and would probably be more enthusiastically responsive to suggestions for sanitary improvement.

The recent report of the New York Health Department says that the total number of reported cases of typhoid fever in New York City for the year 1903 was 3,671, with a mortality of 653, or about 18 per cent. It has been estimated that between three and four thousand cases of typhoid occur in New York City annually. The *Medical Record* of June 4th, 1904, says that for the week ending May 28th, there were reported to the Philadelphia Board of Health 120 cases of typhoid, as compared with 182 for the week ending May 21st, and 295 for the week ending May 14th.

Although modern sanitary science is doing much towards the control of the disease under consideration, it is figures such as these, which tell us in no uncertain terms that there is still a great work unperformed in this field of human endeavor.

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About 2250 B. C., Hammurabi, King of Babylonia, established certain laws which he embodied in a code, inscribed upon stone stelæ, and set up in the principal cities of his domain. We are rather inclined to look upon medical legislation as somewhat modern; that is because we do not know any better. In Hammurabi's time, medicine was specialized; surgery was a distinct branch of the science; quacks and pretenders were known and legislated against. From advance sheets of a translation of these laws by Prof. Harper, President of the University of Chicago, we read: "If a physician operates on a man (*please note that the physician did not 'operate a case' in Hammurabi's time!*) for a severe wound with a bronze lancet and saves the man's life, or if he opens an abscess (in the eye) of a man with a bronze lancet, and saves that man's eye, he shall receive ten shekels of silver (as his fee)." But, under the same circumstances, if he causes the man's death, or destroys the man's eye, "they shall cut off his fingers." That would tend to discourage unskilled operators and experimental operations. In 1508 the Royal College of Surgeons was authorized by charter to examine those who would practice medicine and physic, and to issue license to those who were found qualified. This would not have been done had it not been found necessary, nor would Hammurabi, 4154 years ago, have had need to discourage quacks, had they not existed. Yet, in this year of grace 1904, there come those who practice medicine and physic, and they stand before the highest court in the State, in the persons of their attorneys, and say they prefer to have no law governing the practice of medicine. This is indeed a progressive age, when educated men will strive to put the commonwealth back of the time of Babylonia; to make us lose what has been gained in 4154 years!—*Philip Mills Jones.*

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The town authorities of Spring Lake, after the expenditure of much effort, can report a town in which the sanitation is well nigh perfect. Especially gratifying is the analysis of the drinking water made by Professor Phillips, of Princeton.

## REPORT OF PROCEEDINGS

of the one hundred and thirty-eighth annual meeting of the Medical Society of New Jersey held at Hotel Chelsea, in Atlantic City, N. J., on June 4th, 6th and 7th, 1904.

The President, Dr. Henry Mitchell called the Society to order at 11.30 A. M.

The following persons, as shown by the registration book, were present, during the sessions:

## FELLOWS.

H. Genet Taylor, C. R. P. Fisher, O. H. Sproul, John W. Ward, John G. Ryerson, Chas. J. Kipp, Luther M. Halsey, E. L. B. Godfrey, Wm. Elmer, T. J. Smith, Alex. W. Rogers, Elias J. Marsh and J. D. McGill.

## OFFICERS.

Henry Mitchell, president; Walter B. Johnson, 1st vice-president; Henry W. Elmer, 3d vice-president; E. W. Hedges, corresponding secretary; Wm. J. Chandler, recording secretary; Archibald Mercer, treasurer.

## PERMANENT DELEGATES.

*Atlantic County*—B. C. Pennington, W. B. Stewart, E. A. Reiley, W. E. Darnall and J. A. Joy.

*Burlington County*—J. H. Rugh and E. Hollingshead.

*Camden County*—O. B. Gross, D. W. Blake, Daniel Strock, W. B. Issand, W. A. Davis, H. H. Sherk, Alex. McAlister and W. S. Jones.

*Cumberland County*—S. T. Day, T. J. Smith, O. H. Adams and Joseph Tomlinson.

*Essex County*—Chas. Young, W. J. Chandler, E. J. Ill, C. H. Bailey, T. S. Fitch, R. C. Newton, P. V. B. Hewlet, J. T. Wrightson, T. Y. Sutphen, C. D. Bennett, W. B. Graves, T. W. Harvey, L. S. Hinckley, H. L. Coit, T. W. Corwin, E. Staehlin, R. D. P. Dieffenbach and D. E. English.

*Gloucester County*—G. E. Reading and James Hunter, Jr.

*Hudson County*—J. A. Exton, J. M. Rector, F. M. Corwin, T. R. Chambers, and G. E. McLaughlin.

*Mercer County*—R. R. Rogers, David Warman, Elmer Barwis, T. H. Mackenzie, C. F. Adams, J. C. Felty and H. B. Costil.

*Middlesex County*—A. Treganowan.

*Monmouth County*—F. C. Price.

*Morris County*—Stephen Pierson, Calvin Anderson and F. W. Flagge.

*Passaic County*—P. A. Harris, G. H. Balleray, J. L. Leal, C. H. Scribner, R. M. Curts, and J. T. Gilson.

*Salem County*—B. A. Waddington, W. H. James and Henry Chavanne.

*Somerset County*—Mary E. Gaston, J. P. Hecht and A. L. Stillwell.

*Sussex County*—B. W. Ferguson.

*Union County*—Alonzo Pettit, E. B. Silvers, J. S. Green and N. L. Wilson.

*Warren County*—G. W. Cummins.

## ANNUAL DELEGATES AND REPORTERS.

*Atlantic County*—E. C. Chew, J. C. Marshall, A. B. Shimer.

*Camden County*—Paul M. Mecray, Levi B. First, and J. Watson Martindale.

*Cape May*—Eugene Way.

*Cumberland*—Grafton E. Day.

*Essex County*—Charles V. Burke, Wm. E. Carroll, J. Henry Clark.

*Gloucester County*—Harry A. Stout.

*Hudson County*—Oliver R. Blanchard; Frank D. Gray, John P. Henry.

*Hunterdon County*—Edward D. Leidy, L. T. Salmon.

*Mercer County*—Alexander Armstrong, Paul L. Cort, Martin W. Reddan.

*Ocean County*—Irwin H. Hance, W. G. Schauflier.

*Passaic County*—F. H. Todd, D. T. Bowden, Wm. Neer, A. F. Alexander.

*Salem County*—John F. Smith.

*Sussex County*—Shepard Voorhees.

*Union County*—John H. Carman.

## ASSOCIATE DELEGATES.

Theodore Senseman, S. A. Helfer, J. J. Broderick, C. D. Hill, H. S. Doriss, A. Marcy, Jr., E. Guion, Philip Marvel, E. A. Y. Schellenger, J. F. DeSilver, Walter Reynolds, W. P. Conaway, David Berner, Mary J. Dunlap, Emory Marvel, W. A. Sprenger, J. H. Griffith, T. G. Dunlap, J. E. Hurff, F. C. Ard, C. S. Heritage, A. A. Strasser, F. G. Stroud, Wm. Buermann, T. B. Harris, J. R. Stephenson, J. G. Edwards, S. F. Ashcraft, A. E. Carpenter, M. F. Squier, E. S. Fogg, Alfred Cramer, W. H. Walling, J. B. Wainwright, N. H. Bush, A. C. Hunt, J. W. Smith, E. H. Harvey, Daniel Garrison, H. F. Palm, W. J. Kelchner, W. B. Warner, P. B. Rafferty, W. E. Ramsey, E. S. Sherman, W. H. Shipp, H. W. Kice, E. B. Grier, S. T. Quinn, C. H. Schlichter, C. Garrabrant, W. L. Dunning, Wm. H. James, G. W. Bartow, H. H. Burnette, H. B. Rue, J. F. Leavitt, J. W. Bennett, Wm. M. Goodwin, Wm. Petry, A. W. Warden, F. F. C. Demarest, E. E. Worl, W. J. Hall, C. W. Crankshaw, E. E. DeGrofft, A. F. McBride, and John Bruyère.

## GUESTS.

W. F. Waugh, Chicago, Ill.; J. K. Grailey, Detroit, Mich.; R. W. Lindsley, Little Rock, Ark.; H. G. Wetherill, Denver, Col.

*The following permanent delegates were absent:* H. C. Neer, Park Ridge; D. A. Currie, Englewood; David St. John, Hackensack; Randolph Marshall, Tuckahoe; M. K. Elmer, Bridgeton; J. C. Young, H. C. Bleyle, Geo. R. Kent, A. K. Baldwin, J. W. Read, G. A. Van Wagenen, L. E. Hollister, C. F. Underwood, and R. G. Stanwood, Newark; D. M. Skinner, Belleville; J. H. Bradshaw, Orange; G. B. Philhower, Nutley; R. P. Francis, Montclair; Mortimer Lampson, Jersey City; I. S. Cramer, Flemington; W. S. Creveling, Valley; Geo. N. Best, Rosemont; Geo. H. Franklin, Hightstown; E. B. Dana, Metuchen; F. M. Donahue, New Brunswick; D. M. Forman, Freehold; Edwin Field, Red Bank; P. B. Pumyea, Allentown; Geo. F. Wilbur, Asbury Park; I. W. Condict, Dover; Cuthbert Wigg, Boonton; James Douglas, Morristown; David Stephens, New Brunswick; Cyrus Knecht, Matawan; A. A. Lewis, Morristown; B. D. Evans, Morris Plains; J. M. Stewart, Paterson; M. A. Mackintosh, Paterson; S. O. B. Taylor, Millstone; E. Morrison, Newton;



H. D. Van Gaasbeck, Sussex; T. N. McLean, Elizabeth; J. A. Coles, Scotch Plains; T. H. Tomlinson, Plainfield; W. U. Selover, Rahway, and J. M. Reese, Phillipsburg.

*The following permanent delegates have been absent from two consecutive meetings:* E. Morrison, Newton; M. A. Mackintosh, Paterson; I. W. Condict, Dover; George N. Best, Rosemont; Geo. A. Van Wagenen, Newark; Randolph Marshall, Tuckahoe, and D. A. Currie, Englewood.

### REPORT OF COMMITTEE ON CREDENTIALS.

Dr. E. W. Hedges—The Committee on Credentials report that more than fifty members are entitled to be admitted to the House of Delegates, having signed the registration books. The committee desires to say that the registration books in the adjoining room are still open and they hope that all members will register.

All counties have paid dues with the exception of Hunterdon County; they offered \$29.00 (\$1.00 for each member of the Society) whereas the by-laws state that \$2.00 per capita should be paid. The check of \$29.00 was returned to the treasurer of Hunterdon County. The matter was adjudged and it was decided that no representative from Hunterdon County could take part in the deliberations of the House of Delegates.

Dr. G. E. Reading—I move you that Hunterdon County be allowed to participate in the proceedings. Hunterdon County simply did not have time to rectify their mistake and it is not fair to prevent them from participating in the meetings, when they are not at fault. I have talked the matter over with several members of the Society and all agree that it is unfair to prevent them from participating in our deliberations.

Dr. Wm. J. Chandler—I wish to second that motion. I think it should be recommended that the Hunterdon County Society, in order to become eligible to this Society, be required to pay an assessment of \$2.00 per capita within two months, and that it be not suspended if it agrees to do this. We must be lenient because many are not accustomed to the new by-laws. For this reason I second the motion.

Dr. Archibald Mercer—On May 9th I received a check for \$29.00 from Hunterdon

County, representing payment of \$1.00 for each member of the Society. I immediately returned the check and called attention to the new Constitution and By-Laws in the Transactions of 1903, in which it was stated that the assessment for each member would be \$2.00 per capita. In a few days I received a letter from the treasurer of Hunterdon County Society in which he referred to the first page of the Transactions. I again immediately wrote the doctor and attempted to correct the mistake. Again, it will be remembered that at the last annual meeting of this Society I called attention to that part of the new Constitution and By-Laws in which it was stated that the assessment would be \$2.00 per capita. Since then I have heard nothing from the treasurer nor anything further about it.

Dr. T. R. Chambers—I should like to know if the Society is going to allow one of its component societies to come in to-day and pay \$1.00 while the rest of the societies have to pay \$2.00.

Dr. G. E. Reading—It is certainly bad for the Society to act hastily in this matter. The Society can amend the report in any way that they see fit. If they see fit to accept the report as offered, Hunterdon County Society can not be represented.

Dr. A. Mercer—I do not believe the House can organize until the report of the Committee on Credentials be received.

Dr. Henry Mitchell—The motion is before you that Dr. Hedges' report be received. Motion carried.

Dr. E. W. Hedges—I move you that the recommendation of the Board of Trustees that Hunterdon County be allowed to take part in the proceedings to-day with the understanding that a check for \$2.00 per capita will be forthcoming within two months be accepted.

Dr. T. R. Chambers—I wish to second that motion in order that I may knock it down. This recommendation allows Hunterdon County to participate in the proceedings although they have only paid \$1.00 with a promise of a future payment. I hope



it will be voted down. It is unfair, unethical and non-parliamentary.

Dr. Charles D. Bennett—The by-laws state that component societies, who have been assessed \$2.00, shall stand suspended until same shall have been paid. You may suspend the by-laws, but I never heard of the constitution being suspended. Hunterdon County Society has not paid and, therefore, there is no argument.

Dr. Wm. J. Chandler—Any society which fails to pay assessments or to make its report shall be suspended unless the disability be removed. But, gentlemen, the Constitution and By-Laws being new, I think we should be lenient.

Dr. A. Mercer—I think we want to go carefully about this matter because we are acting for the first time under the new Constitution and By-Laws, and we do not want to establish any bad precedents. I think the question comes up whether the House of Delegates can remove a disability contrary to the By-Laws and Constitution. The Constitution says the assessments should be collected. The By-Laws state that each county should pay, thirty days prior to the annual meeting, a \$2.00 per capita assessment. If, in the case of the Hunterdon County Society, the check was lost, it would raise a question of disability and the Board of Trustees might remove this. In fact, they did remove it last night in considering the question brought up by Sussex County, who claimed that they had mailed a check, which your treasurer did not receive. The Board of Trustees then recommended something entirely contrary to the Constitution and By-Laws. I should like to have a ruling as to whether the Board of Trustees have a right to do it.

Dr. L. M. Halsey—According to the resolutions passed last evening, the House of Delegates recommended that Hunterdon County Society be admitted on condition that they pay the assessment within two months. I think we should be lenient in this matter, for it is only right and proper that Hunterdon County Society should be admitted and

I cannot see any better way out of it. It certainly would be very charitable to admit them.

Dr. R. C. Newton—Did Hunterdon County Society agree to pay \$2.00 assessment?

Dr. James T. Wrightson—At the present time there is before us a question to decide that may have to be decided again and again. It certainly would be establishing a precedent to state that a society could be represented that was under suspension. It seems to me that the treasurer of Hunterdon County Society had plenty of time to make himself right. If this county is suspended it is not the fault of Hunterdon County Society, but of its treasurer. No matter what you may do you cannot suspend the Constitution; you may suspend the By-laws. I hope this motion will be voted down, because it establishes a bad precedent.

Dr. O. H. Sproul—In order to settle this controversy, I will give a check for the total amount of the assessment.

The President—Will the secretary read the by-law bearing on this point?

The Secretary—Chap. XII, Sec. 2, is as follows: "Any component society which fails to pay its assessment or to make the reports as required in this Constitution and By-Laws, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Society (*unless the disability be removed by the House of Delegates*) until all requirements have been satisfied." The portion in parenthesis was inserted for the purpose of giving to the House of Delegates discretionary power to remove just such a disability as this. I see nothing illegal or unconstitutional in the action proposed and I hope that the Society will vote in favor of the motion.

Dr. G. E. Reading—In view of the misunderstanding regarding Hunterdon County Society, I hope they will be allowed to take part in our deliberations to-day as regular members with the understanding that they pay a per capita tax within the specified time as recommended by the Board of Trustees.

Dr. Henry Mitchell—The original motion of Dr. Hedges is before you. Motion carried.

**Nominations by the Board of Trustees to fill vacancies occurring "ad interim." Election to fill vacancies.**

Dr. O. H. Sproul—To fill the vacancy in the office of first vice-president caused by the death of Dr. A. W. Taylor, the Board of Trustees nominate Dr. W. B. Johnson. I move you that the Secretary be authorized to cast the ballot. Motion carried. The Secretary announced that Dr. W. B. Johnson was unanimously elected as first vice-president.

It was moved and seconded that the reading of the minutes of the last annual meeting be suspended, and that the minutes as printed in the transactions, be approved. Motion carried.

**REPORT OF THE COUNCILLORS.**

Dr. Philip Marvel, of Atlantic City, chairman of the Council, presented the following report:

The Councillors met at Trenton, N. J., September 16, 1903, and organized as follows: Philip Marvel, chairman; Thomas W. Harvey, secretary and treasurer. Dr. Cornelius Shepherd, having declined to act as Councillor for the Third District, the president of the Society, Dr. Henry Mitchell, appointed Dr. William A. Clark, of Trenton, to fill the vacancy.

The secretary was instructed to inform the secretaries of the various component or county Societies to which Councillor District the respective Societies were assigned and the name and address of the Councillor appointed for said district, and also to request the said secretaries to notify the Councillor of their district of all regular meetings of the component Society, five days previous to such meetings, giving date and place of meeting.

It was further resolved that the special work this year should be in reference to the reorganization of the County Societies, which was necessary under the revised Constitution of the Medical Society of New Jersey, and which required some changes in the constitutions of the County Societies and also new charters from the State Society.

The following letter was ordered to be sent by the secretary of the Council to the secretary of each County Society:

*To the Secretary of the.....County Medical Society:*

Dear Sir—One of the articles of the new constitution of the Medical Society of New Jersey provides for the election of a Judicial Council of five Councillors, each representing a district composed of four contiguous Societies. At the last annual meeting the president, having been authorized by resolution to that effect, appointed such a Council to serve until their successors should

be regularly elected in June, 1904. For this year your Society has been grouped with.....Societies and Dr.....of.....has been appointed Councillor for the district.

The duties of this Council have mainly to do with ethical questions, which shall be referred to them by the State Society. This year, however, it devolves upon its members to promote and assist in the reorganization of the County Societies, so as to bring them into accord with the new constitution of the State Society. In the article creating the Judicial Council it is directed that at least once a year each Councillor shall visit the County Societies composing his Councillor district. The Council has therefore directed its secretary to request you to send to your Councillor notices of the regular meetings at least five days in advance.

Yours respectfully,

*Secretary of the Council.*

Dr.....address is

.....N. J.

All of the County Societies within each district were visited with the exceptions noted in the individual Councillor reports which are attached hereto. The work done by the Councillors this year has been largely of direction and assistance in the transposition from the old ways to the new. And the results have been so satisfactory that henceforth the State and County Societies will need little or no adjustment in their relations to secure uniform and harmonious action.

The work performed by your Councillors has been one of pleasure as well as duty, and their time has been cheerfully given.

The reports of the individual members of the Council are hereto appended.

Respectfully submitted,

**PHILIP MARVEL,**  
*Chairman.*

**ABSTRACTS OF COUNCILLOR'S REPORTS.**

*1st District*—Sussex, Warren, Morris and Essex County Societies. Thomas W. Harvey, M. D., of Orange, Councillor.

I would respectfully report that Essex, Morris and Sussex Medical Societies have completed their reorganization in accordance with the new constitution of the State Society.

I have been unable to elicit any response from the secretary of Warren County, but I understand that owing to some peculiarities of their constitution, their reorganization can not be completed this year.

I have attended meetings of the Essex, Morris and Sussex Societies. Each of these Societies is in a flourishing condition. I am unable to report on the number of physicians outside of the County Medical Societies in Morris and Essex, but in Sussex there are but two regular physicians who are not members of the County Society.

*2nd District*—Union, Hudson, Bergen and Passaic County Societies. John L. Leal, M. D., of Paterson, Councillor.

During the past year Hudson was visited on January 26th, Bergen on February 24th, Union on April 13th, and Passaic (my own Society) at its regular monthly meetings. All of these Societies have reorganized in conformity with the new constitution and by-laws of the State Society, and



have obtained the necessary charters. This preliminary work or reorganization, being of the first importance, little opportunity has been afforded me for inquiring into the condition of the profession and for improving and increasing the zeal of the Societies in their scientific work. The condition of these four Societies, however, seems in every way fairly satisfactory, and efforts are being made to bring into their membership all reputable physicians in good standing. Already some progress has been made in this direction.

*3rd District*—Mercer, Middlesex, Somerset and Hunterdon County Societies. William A. Clark, M. D., of Trenton, Councillor.

I have visited the four County Medical Societies composing the Third Councillor District, viz., Hunterdon, Somerset, Middlesex and Mercer, and find that they have all received their new charters from the Medical Society of New Jersey and that they have all reorganized under the new constitution and by-laws. The meetings were well attended, papers of merit were read and discussed by the members, peace and harmony prevailed everywhere, there were no questions of ethics to be referred to this Council for adjudication, and altogether, these Societies showed a professional, intellectual and ethical advancement which was highly satisfactory and commendatory.

*4th District*—Camden, Burlington, Ocean and Monmouth County Societies. Daniel Stroock, M. D., of Camden, Councillor.

I have visited Burlington, Camden and Ocean County Societies, and assisted them in reorganizing. Monmouth County Society was not visited because of failure to receive notification of time and place of meeting. All the Societies have changed their constitutions to conform to the requirements of the State Society, and all have applied for and obtained new charters. Successful efforts had been made to secure new members. The meetings were well attended and able papers were presented and discussed. The Ocean County Society for the first time in several years will have delegates present at the next meeting of the State Society. Attention is called to instances where an active member of one County Society is also an active member of an adjoining County Society. This is objectionable because it does not give a correct idea of the membership of the profession of the State and might give a County Society improper representation in the House of Delegates. Associate membership in the adjoining County Society would not be objectionable.

*5th District*—Cape May, Cumberland, Atlantic, Gloucester and Salem County Societies. Philip Marvel, M. D., of Atlantic City, Councillor.

I have visited each County Society in the District except Cumberland, the failure in the latter case being due to a misunderstanding as to the date of the annual meeting of that Society. Each Society having adopted the changes required is now in affiliation and harmony with the State Society and each is doing work which reflects credit upon the officers and members. In the Gloucester and Atlantic County Societies a program is arranged from its individual membership and announced for the succeeding meeting and there is added a paper or lecture from some one from outside the county especially selected and invited. Gloucester has an annual social meeting to which the wives or sweethearts of the members are invited and it has proved a most enjoyable

occasion. I would recommend that the Secretary of each County Society be requested to secure and report through his District Councillor a brief history of the organization, giving names of its founders and other information of interest. It will make a valuable addition to the transactions of 1905.

It was moved that this report be received. Motion carried.

#### REPORT OF THE COMMITTEE ON HONORARY MEMBERSHIP.

Dr. E. J. Marsh announced that there were no nominees for honorary membership.

#### REPORT OF COMMITTEE ON ARRANGEMENTS.

Dr. Theodore Senseman read this report, which was received.

#### REPORT OF COMMITTEE ON HYGIENE AND LEGISLATION.

Dr. Charles Young read this report.

The Committee on Public Hygiene and Legislation respectively reports that in the matter of public hygiene no business was referred to this committee by the Society. The attention of the committee was called to an interpretation by the branch court of the Supreme Court of the statute law in reference to the practice of medicine in New Jersey, in which Judge Dixon held that Ernest M. Herring, osteopath, was wrongfully convicted of violating the act governing the practice of medicine, and therefore the conviction was set aside. A meeting of the committee was called for February 9, to confer in regard to this decision. At the suggestion of the president, the State Board of Medical Examiners was invited to meet with the Committee. A quorum was not present, but after an interchange of views, it was recommended that it be advised to carry the case to the Court of Appeals. The committee subsequently received a letter from Jno. W. Bennett, M. D., in which he states that an appeal has been already taken. Consequently at a meeting of the committee it was resolved that we sustain Dr. Bennett in his appeal from the decision of the Supreme Court in the case of the State vs. Ernest M. Herring, osteopath, and that we recommend to the House of Delegates and the Board of Trustees to defray the expense attending the appeal. Dr. Bennett has hitherto personally borne the expenses attending this suit. The committee by allotment has classified itself according to the New York law, as follows: To serve for one year, Drs. Ayres and Young; to serve two years, Drs. Tomlinson and Kipp; to serve three years, Drs. Waddington and Elmer.

Respectfully submitted,

CHARLES YOUNG,  
*Chairman.*

WILLIAM ELMER,  
CHARLES J. KIPP,  
JOSEPH TOMLINSON,  
M. S. AYRES,  
B. A. WADDINGTON,  
*Committee.*

Dr. H. A. Stout—Is it not in the province of the Committee on Legislation to carry out the wishes of the Society? Certain recommendations were made to the Society



through this committee, to which no reference has been made. Dr. Halsey presented certain recommendations last year which have not been acted upon. What I should like to know in particular, is what has been done regarding the passage of a bill protecting physicians while upon the witness stand. After untiring efforts on the part of Dr. Halsey, a bill was presented which incorporated the required features, but because of the efforts of certain lawyers, the bill was defeated. In making the report last year, it was recommended that the Committee on Legislation continue its efforts and report at some subsequent meeting. So far nothing seems to have been done and it seems to me that the legislative committee should endeavor to follow out the wishes of the Society.

Dr. T. R. Chambers read the report of Committee on Scientific Work:

#### REPORT OF COMMITTEE ON SCIENTIFIC WORK.

Your committee would report that on account of the necessity of this occasion when the time of the meeting is really only one day, or rather a portion of two days, Monday and Tuesday, it was difficult to know how many papers would be required. The idea of having a symposium on some subject was considered, and it was decided best to have only individual papers, whose discussion might have more general interest.

Dr. E. S. Fogg, of Bridgeton, will read a paper on gastric ulcer, and it is with regret that your committee confesses that it omitted the name of Dr. Fogg from its list of writers sent to the committee on program, and that consequently his name does not appear in the printed list.

Your committee would suggest the advisability of combining the committee on scientific work with the committee on programme.

Reports have been received from seventeen counties. Camden, Essex and Cumberland failed to report. The reporter from Essex has recently sent an apology stating that he was not able to report on time, owing to his inability to obtain health statistics. This same difficulty has delayed reports from other counties, and your committee would suggest that these health reports be gathered soon after January 1st of each year. We would also suggest that the members assist the reporter, and when he calls upon them for reports to reply promptly, and in that way help the reporter to furnish data. The health of the various counties has been about as usual except for perhaps a slight increase in pneumonia. Smallpox was reported in Burlington, Gloucester, Passaic and Salem Counties.

NORTON L. WILSON,  
TALBOT R. CHAMBERS,  
*Chairman.*

It was moved that the report be received and referred to the Committee on Publication. Motion carried.

The report of the Committee on Business was called for, but no report was made.

The Committee on Program made its report through Dr. McAllister. The report was received.

Report of Committee on Publication was made by the Secretary as follows:

The Committee on Publication held several meetings during the year.

One of the most important duties of this committee is the editing of the transactions. The amount of material for this volume increases somewhat from year to year, and the work of revising manuscript, reading and correcting the proof has become a labor of no small proportions. The deciphering of the original copy at times requires the skill of a U. S. Post Office expert, and it is suggested that hereafter all manuscript intended for publication in the transactions shall, as far as possible, be typewritten. This will add but little to the work of the individual writer, and will lessen, very materially, the labors of your committee and those of the printer. Every year efforts are made to issue the transactions earlier. The great source of delay lies in the fact that soon after our meetings many of the writers are off on their vacations and are reached with difficulty if at all, and there is much delay in forwarding, returning and correcting proofs. One writer thus keeps all those after him in waiting, and they in their turn delay those next after them. Writers should leave their summer address with the recording secretary, and always revise and return their proofs at the earliest possible moment. Careful attention to this one point would hasten the issue of the transactions by several weeks.

One of the very first things requiring attention of your committee was the imperfect condition of the by-laws. It would have been an unjust reflection on the Revision Committee and on the members of this venerable Society to have published the by-laws as they came into the hands of the Committee on Publication.

It will be remembered that all members of the Society were invited to meet on the evening before the opening of the last annual session to consider the proposed new constitution and by-laws. At that meeting many changes were suggested. The committee on revision endeavored to make these changes, but owing to the limited time (a few hours only before presentation to the Society) it failed to entirely and properly incorporate them, and as a consequence the instrument as adopted was afterwards found to be very imperfect from omissions, repetitions and inaccuracies of expression.

The Committee on Publication, after consultation with the former Committee on Revision, corrected these very apparent errors without making any essential changes in the main features or requirements of the constitution and by-laws as adopted. This action was approved by the Board of Trustees, and by their order these instruments as corrected were printed in the transactions.

They will come before the Society at this meeting and will, I trust, receive its hearty approval.

WM. J. CHANDLER,  
D. C. ENGLISH,  
H. W. ELMER,

*Committee.*

Dr. J. W. Ward—I move you that the Constitution as printed in the Transactions be adopted as the Constitution of this Society. Seconded and unanimously carried.

Dr. J. W. Ward—I move you that the fact that the amendments to the By-Laws have been printed in the Transactions for 1903, be taken as their first reading, *i. e.*, that they be considered as having been read once. Motion carried.

Dr. J. W. Ward—I now move that this same fact be considered as the second reading. Seconded and carried.

Dr. Wm. J. Chandler—I move that the by-laws be laid on the table for one day. Seconded and carried. No further action can be taken at present, unless there are other amendments to be offered.

Dr. Charles J. Kipp—As an amendment to by-laws, Chapter XII, Sec. 1, I move that you insert after the last word of first section “unless otherwise ordered by the Society.”

Dr. T. R. Chambers—I move that the Committee on Scientific Work and Programme be amalgamated and consist of three members.

Dr. Wm. J. Chandler—The President has power to fill vacancies, but it should not be made mandatory. I move you, therefore, that in Chap. VI, Sec. 1, 8th line, instead of the word “shall” there be inserted the words “shall have power to.” In other words that the president shall not necessarily be compelled to fill such vacancies.

Dr. Wm. J. Chandler—I move you that in Chapter XII, Sec. 1, instead of the words “thirty days” we insert the words “at least one month.”

Dr. Charles D. Bennett—As an amendment to the By-Laws, Chap. XV, Sec. 7, after the word “may,” insert the words “by majority vote of those present.”

## MISCELLANEOUS BUSINESS.

Dr. Richard C. Newton—I move you that a committee of five be appointed by the chair to take under advisement the journalizing of the transactions, instead of printing them in the annual volume, and that this committee report on Monday. Seconded and carried.

Dr. Richard C. Newton—Inasmuch as the editors of the journals of the State Medical Societies have called a meeting in this city and have requested that we send a delegate; I move that the chair appoint such a delegate. Motion carried.

Dr. Henry Mitchell—It is requested that all bills against the Medical Society of New Jersey should be placed in the hands of the trustees before or during the afternoon session. These bills will be examined by the Finance Committee and when approved, will be paid.

Dr. Strock—I move that the following be added to Chapter XV, Sec. 4: “Provided, an active member of one component medical society shall not be eligible to active membership in any other component society at the same time.”

## REPORTS OF DELEGATES TO, AND RECEPTION OF DELEGATES FROM CORRESPONDING SOCIETIES.

Dr. Wm. J. Chandler—Such reports have been made and will appear in the Transactions.

## AFTERNOON SESSION.

Invocation was offered by the Rev. Dr. William Aikman.

Address of Welcome. Hon. F. P. Stoy, Mayor of Atlantic City:

Mr. President and Members of this Association, it is generally understood in Atlantic City that a doctor is a privileged character. I do not know why I was called upon to deliver an address, for when the doctor comes to town he knows that he is a privileged character. We claim that the doctors made Atlantic City. If this is so we are glad to-day to welcome you and to greet those who have done so noble a work as to make such a town. However, it is my duty, I presume, to say something in the way of welcome, and I take this opportunity to



say that—representing the city as I do—the people of Atlantic City welcome you here to-day. Now I have been out a great many times with the doctors (perhaps some of them are present) and I feel that it is my duty to extend more than a welcome to you, and I say, as the Mayor of the city, while you are here I think it is best to extend to you the freedom of the city, as I might be called to account later on for something that might happen during your stay. We greet you to-day as one of the greatest institutions in the country and hope that your stay here will be a pleasant one, not only in one sense, but in a sense that it may be instructive to you as well as a benefit to humanity, and I trust a little extension of this courtesy, that I want to bring before you to-day, is nothing more than a drop in the bucket to what you will enjoy during your stay in Atlantic City. I understand that next week the whole brood comes, that these are only messengers in advance and that our city is to be overwhelmed with a great deal of what I called sometime ago the greatest institution in the world. I have never seen a greater bunch of intellect in my life. I hope that your stay with us is going to be crowned with success and that you will enjoy everything that it is in my hands to give you. With these few remarks, Mr. President, knowing that you have a great deal of work before you, I retire leaving the rest for the next speaker of the day.

The President, Dr. Henry Mitchell, responded as follows:

*Mr. Mayor:*

I have great pleasure in acknowledging, on behalf of the Medical Society of New Jersey, the gratification with which this organization returns from time to time to this progressive city of the coast, a city of which every Jerseyman is proud; and the growth and development of which, as a pleasure resort, is unequalled in this great country.

We accept the hospitality so generously accorded in the same cordial spirit in which it is extended, and trust that on many occasions in the future the Society will hold its annual gathering within your boundaries.

Dr. E. J. Marsh—On account of a temporary indisposition of our Recording Secretary, I move you that Dr. Charles D. Bennett be appointed to fill his place for the time being. Motion carried.

It was moved that the Nominating Committee meet at five o'clock. Motion carried.

The report of the Corresponding Secretary was read by Dr. E. W. Hedges, as follows:

Atlantic City, N. J., June 4, 1904.

*To the Medical Society of New Jersey:*

Your corresponding secretary respectfully reports that during the past year copies of our transactions have been sent to all the State Societies, to many National Societies, to a number of foreign Societies and to many public libraries.

In return we have received transactions from not more than a quarter as many sources, many of the Societies to which we send not publishing transactions of their own.

From this time on these exchange transactions will be accessible to the profession in the William Pierson Library at Orange and not stowed away as formerly in the attic of the State House at Trenton.

Your secretary has attended to such correspondence as has been necessary during the year past and to such other duties as have devolved upon the office.

Respectfully submitted,

ELLIS W. HEDGES,  
*Corresponding Secretary.*

On motion the report was received.

The report of the Recording Secretary was presented as follows:

#### REPORT OF THE RECORDING SECRETARY.

*To the Medical Society of New Jersey:*

At the beginning of the current year our permanent delegate membership amounted to 137. Since then three have died—William Rankin, of Newark; W. H. Ireland, of Camden, and Cornelius Shepherd, of Trenton. No permanent delegates can be elected this year, as the quota of all the County Societies, except that of Ocean, is full, and in some cases exceeds the constitutional limit. The following have been absent from two consecutive annual meetings: Henry B. Whitehorne, George C. Laws, J. G. Wilson, F. E. Flagge, and Calvin Anderson.

The excuses of Drs. Flagge and Anderson were accepted by the Council. The excuse of Dr. Whitehorne was not accepted. No excuses were received from Drs. Laws and Wilson. Consequently the names of Drs. Laws, Wilson and Whitehorne were dropped from the list of permanent delegates.

The vacancies thus created cannot be filled until the disproportionate representation of these Societies is reduced below the constitutional restriction.

The excuse of Dr. J. A. Exton for absence last year was accepted.

Three names are thus dropped from the roll for non-attendance, leaving us with a total of 131 permanent delegates.

The Society membership has slightly increased. Last year it was 1,122, this year 1,158, a gain of 36. Union shows the largest gain in actual paid-up membership. There is a discrepancy between the lists sent to the recording secretary, and those sent to our treasurer. For that reason it seems that the present requirement in our by-laws that the county secretary shall send with his list an order on the county treasurer for the amount of the annual dues is wise. Our former course, of sending the money to the treasurer of this Society, and the lists to its recording secretary, involves much time and labor in correspondence between the secretary and treasurer in order to make the two lists agree. It enforces the idea, that your secretary has for several years called to your attention, the necessity for earlier annual meetings of the County Societies. This year, I

am happy to announce, that this change has been pretty generally adopted. It now needs active work between the county secretary and county treasurer to collect the dues and forward the list, with a corresponding check, to the recording secretary at least one month before our annual meeting. This has been done by some of the Societies this year, and it should be done by all. Few realize the amount of work involved in revising and correcting the membership list of this Society. The *modus operandi* is something like this. The county secretary sends in his list of the officers, members and delegates of his County Society. The official list of that county, on file in the office of the recording secretary, is corrected to correspond. A report of the number of members is sent to the state treasurer for comparison. If the amount of dues paid corresponds with the number of members the status of that Society is settled and no more work is required. But this result is seldom attained so easily. Generally the state treasurer reports that — county has sent a check for 1, 2, 6, 8 or 10 dollars less than the secretary's lists call for. Your secretary has then to open a correspondence with the county secretary or treasurer, or both, which correspondence is frequently continued up to the very date of our annual meeting, and sometimes is not then adjusted. This leaves the lists incomplete and involves a large amount of unnecessary work for all concerned.

At the time the envelopes containing the notices of the annual meeting were directed this year the reports from eleven of the twenty-one counties were either unverified, incomplete or had not been received at all. For this reason some of the members do not receive their notices, the new members because their names are not on the list, and the old members because of removal, &c. All these irregularities and sources of complaint could be avoided by having the county secretary and county treasurer compare their lists, and make uniform reports to the recording secretary of this Society at least one month before our annual meeting.

Members who do not pay their dues at that time should be debarred from the privileges and courtesies extended to those who pay promptly.

Under the special authority vested by the Society in the president and secretary, charters have been issued to all the component Societies in the State—21 in number. Some counties required no especial changes in their by-laws, some had to make a few changes, and others had to entirely reorganize. But all have finally complied with the requirements and have obtained charters.

In September, 1903, an effort was made to systemize and carry out the plan recommended in our new by-laws for the registration of every physician practicing in New Jersey. A supply of different colored cards, blue for members and white for non-members, was sent to each county secretary. A case for filing these cards was sent with each package, and it was requested that special effort be made to collect the data specified and send them to the recording secretary, that he might copy them and return the cards to the county secretary. Returns more or less full have been received from Atlantic, Morris, Sussex, Hunterdon, Somerset, Ocean, Camden, Monmouth, Salem, Bergen and Burlington.

Ten county secretaries have not as yet sent in

these cards. Proper forms have been printed and are on hand in the office of the recording secretary for distribution whenever needed for the collection of these data. And it is suggested that those county secretaries, who have failed to make returns, apply for these blanks, send them out with a stamped envelope enclosed, and request a prompt reply.

In this way it is possible to have full returns from every county in the State.

This is the first step in the work of reorganizing and strengthening the medical profession. All worthy members can be known and brought into the regular fold, and the unsuitable and unqualified men discovered and routed out. There is considerable work to be done with this latter class and it seems to be the province of the County Society to take the initiative in the matter.

If we have laws that will suppress quackery let us have them enforced. If the laws are insufficient it is the duty of our Legislative Committee to see that a law is framed suitable for our needs, and then let the Medical Society of New Jersey use all its influence with the legislators of this state to secure the enactment of such a law.

The year just closed has been an eventful and an exceedingly busy one in the office of the recording secretary. The introduction of the card index system, the correspondence with county secretaries and other members unfamiliar with the new by-laws, and the efforts to reduce as much as possible the friction in the running of our new machinery, the continual growth of our Society, and the consequent increase in its work have augmented the labors of the secretary's office far beyond those of any preceding year. The changes in our constitution and by-laws were quite extensive and at first sight seemd to be quite radical, but on close inspection they will be found to be largely verbal and are quite in conformity with our traditional customs. We are here to-day transacting our affairs with so little practical difference, that I doubt if one not especially critical would notice anything different in our proceedings from those of the past few years.

As time goes on the slight improvements in procedure will be better appreciated, and as we become less conscious of the newness of our garb we shall the better estimate not only our improved appearance but more especially our ability to increase in quantity and in quality the value of our scientific work.

We earnestly bespeak your forbearance from hasty criticism, and your helpful aid in the attainment of the object of our new laws, for thus only can we achieve the purpose of this Society—to organize the medical profession, to advance medical science, to promote friendly relations among our members, to educate the public—and in everything, to render the medical profession most capable in its service to humanity.

It was moved that the report be accepted and that the suggestions therein contained be approved. Motion carried.

The report of the Treasurer was read by Dr. A. Mercer, as follows:



TREASURER'S REPORT.

In account with the Medical Society of New Jersey, 1903-04.

		DR.	
1903.	June. Monmouth County, additional payment .....		\$1.00
1904.	May. Atlantic County Assessment \$102.00		
	Bergen " " .....	88.00	
	Burlington " " .....	74.00	
	Camden " " .....	150.00	
	Cape May " " .....	40.00	
	Cumberland " " .....	92.00	
	Essex " " .....	476.00	
	Gloucester " " .....	54.00	
	Hudson " " .....	298.00	
	Hunterdon " " .....	.....	
	Mercer " " .....	134.00	
	Middlesex " " .....	80.00	
	Monmouth " " .....	90.00	
	Morris " " .....	114.00	
	Ocean " " .....	.....	
	Passaic " " .....	160.00	
	Salem " " .....	36.00	
	Somerset " " .....	46.00	
	Sussex " " .....	.....	
	Union " " .....	154.00	
	Warren " " .....	40.00	
		2,228.00	
	Burlington County, additional payment for 1903 .....		1.00
	W. J. Chandler, Rec. Sec., unexpended balance .....	300.00	
	Interest on U. S. Bonds.....	102.00	
	To cash balance in bank, June, 1903....	2,225.55	
	To U. S. Registered 4 per cent. Bonds..	2,550.00	
1903.		CR.	\$7,407.55
June.	Dr. H. W. Elmer, Chairman Standing Committee.....	\$34.00	
	Dr. A. McAlister, Business Committee .....	29.26	
	Dr. P. Marvel, Chairman Revision By-Laws Committee .....	90.50	
	Dr. W. J. Chandler, Recording Secretary .....	62.50	
	Dr. J. Tomlinson, Chairman Education Committee .....	10.45	
	Dr. Hedges, Corresponding Secretary .....	10.00	
	L. J. Hardham Printing Co. ....	65.50	
	Dr. A. Mercer, Treasurer..	12.74	
	Whitehead & Hoag Co., for badges .....	54.73	
July.	Dr. O. C. Ludlow, stenographer .....	65.00	
	Dr. W. J. Chandler, Recording Secretary .....	500.00	
Oct.	L. J. Hardham Printing Co., Transactions .....	350.00	
Nov.	F. B. Conover, Extra Diners, Session 1903.....	130.50	
Dec.	L. J. Hardham Printing Co., Transactions .....	784.70	
		\$2,199.88	
1904.	June. By Cash Balance in Bank, June, 1904 .....	2,657.67	
	By U. S. Registered 4 per cent. Bonds .....	2,550.00	
		\$7,407.55	

ARCHIBALD MERCER, *Treasurer.*

It was moved that this report be received and referred to the Finance Committee of the Board of Trustees. Motion carried.

Dr. A. Mercer—I should like to ask that the Committee on Reinvestment of Bonds be authorized to dispose of its U. S. Bonds. A motion was made last year to dispose of these bonds and to reinvest the money. I received a special blank from the government, which prescribed that the resolutions authorizing their disposal must be stamped with the stamp of the Society; if not it would be irregular. The government requested such a resolution and, therefore, I shall present as a report, the following resolution:

*Resolved*, That Dr. Archibald Mercer, the treasurer of this Society, be and hereby is authorized and empowered to assign all the United States Registered Bonds now standing in the name of the Medical Society of New Jersey and to appoint one or more attorneys for that purpose.

It was moved that the resolution be adopted. Motion seconded and carried.

Dr. A. Mercer—I move you that a committee of three be appointed which shall be empowered to reinvest the money after disposal of the bonds. These bonds have gone from 111 to 106 and in the near future they may reach par, because they mature in 1907.

Dr. Fisher—I move that the old committee be reappointed. Motion carried.

REPORT OF THE BOARD OF TRUSTEES.

Dr. Charles D. Bennett, acting as Secretary, read this report:

*To the Medical Society of New Jersey:*

I have the honor to report that a meeting of the Board of Trustees of the Medical Society of New Jersey was held in the City of Trenton, Wednesday, September 26th, 1903, the following members being present: Drs. Johnson, Rogers, Welch, Ryerson, Sproul, W. Elmer, English, Fisher, Mitchell and Chandler.

The board was organized by the election of the undersigned as chairman and W. J. Chandler as secretary.

On motion of Dr. Rogers it was agreed that the interests of the Society would be best served by fixing the annual meeting for 1904 on Saturday, Monday and Tuesday, June 4, 6 and 7, instead of June 22, 23 and 24.

A report was received from the Committee on Publication of the transactions, and it was, on motion, agreed that the corrected copy of the constitution and by-laws, as finally reported by

the Committee on Revision, be published in the transactions, and the trustees recommended the acceptance of this copy by the Society in place of the stenographic report adopted at the annual meeting held in 1903.

It was ordered that the treasurer be authorized or instructed to pay bills for the necessary expenses to be incurred by the secretary, not exceeding two hundred dollars.

The bill for publishing the transactions for 1903 was ordered paid.

The bill for 87 dinners served to members of the Society, who were not guests at the hotel where the headquarters of the Society was established during the annual meeting of 1903, was ordered paid, but the trustees desire that this action shall not be regarded as a precedent for the guidance of the Society in future.

At a meeting of the board held June 3, 1904, Dr. W. B. Johnson was nominated for 1st vice-president, to fill the vacancy created by the death of Dr. A. W. Taylor.

The treasurer's bond was fixed at the sum of three thousand dollars, the Society to pay the annual premium therefor.

It was recommended that the delinquents of certain component Societies be leniently dealt with by the House of Delegates, provided they pay their assessments in a reasonable time, but that such action be not taken as a precedent for the future.

Respectfully submitted,

O. H. SPROUL,  
*Chairman Board of Trustees.*

It was moved that the report be received and referred to the Committee on Publication. Motion carried.

Dr. Wm. J. Chandler—As an amendment to the by-laws, I move that in Chapter VI, Sec. 1, 8th line, instead of the word "shall" there be inserted the words "shall have power to."

Dr. Wm. J. Chandler—I move that in Chapter XII, Sec. I, instead of the words "thirty days" there be inserted the words "at least one month."

Dr. Charles J. Kipp—As an amendment of By-Laws, Chapter XII, Sec. 1, I move that you insert after the last word of first section, "unless otherwise ordered by the Society."

Report of Dr. Wrightson, delegate to the Committee (A. M. A.) on National Legislation, was read, received and referred to the Committee on Publication. The report is as follows:

Your delegate attended a meeting of the committee in Washington, D. C., February 12, 1904. Action was taken to further the best interests of the pure food bill then pending in Congress and if possible to secure its passage.

A committee was appointed to confer and draft a law that would be suitable for adoption by each State, so as to standardize the medical laws of the whole nation.

Several other questions of minor importance were discussed but no definite action taken.

J. T. WRIGHTSON,  
*Delegate.*

Dr. Henry Mitchell—As a committee of five to report upon the feasibility of substituting a monthly journal in place of the annual transactions, which have hitherto been published, I will appoint Drs. H. W. Elmer, D. C. English, N. L. Wilson, T. W. Harvey and Archibald Mercer.

Dr. E. W. Hedges—I have here the certificate of election of Joseph E. Hurff as a permanent delegate. It should have been presented one year ago, but was not, and the doctor asks to present it at this meeting.

Dr. Henry Mitchell—We shall lay it upon the table at present.

Dr. A. Mercer—This Society has just issued to County Societies a new form of charter. It is a cheap affair and very perishable. It is on common paper and in a few years it will have become destroyed or the ink will be illegible. Therefore, I move that the Secretary be empowered to have twenty-one new charters engraved on parchment. Motion carried.

Dr. Charles J. Kipp—I move you that the cost of the trial of practitioners now before the court shall be borne by the Society. Since the action is likely to be brought by the Attorney-General, the expense will be less than it would have been if the lawyers had continued to handle it.

Dr. Fisher—It is right that the Society should bear this burden and I think that the motion should prevail.

Dr. Wrightson—If any members of the Society have paid bills for such purposes I think they should be recompensed. They should be paid whether they want to be or not, and I offer this as an amendment. Amendment carried.

Original motion was offered and carried.

Dr. Wm. J. Chandler read the resignation of Dr. T. J. Smith as permanent delegate.

It was moved that this resignation be accepted. Motion carried.



Dr. Henry Mitchell—As a delegate to the meeting of the editors of journals of State Medical Societies, I appoint Dr. Richard C. Newton.

Dr. Charles D. Bennett—As an amendment to By-Laws, Chapter XV, Sec. 7, I move that after the word "may" the words "by majority vote of those present" be inserted.

Dr. Strock—I move that we add to Chapter XV, Sec. 4, the following: "Provided an active member of one component medical society shall not be eligible to active membership in any other component society at the same time." *On motion, adjourned.*

Minutes of the proceedings of the Society in General Session, Saturday, June 4, at 4 P. M.

A paper on "Progress in Ophthalmology and Otolaryngology," was read by Dr. T. R. Chambers, Jersey City.

The Society then adjourned till Monday, June 6th.

## SECOND DAY.

Monday, June 6th, 9 A. M.

Society called to order by the President.

The report on "Progress in Rhinology and Laryngology," was made by Dr. F. C. Ard, Plainfield.

A paper was read by Dr. John A. Wyeth, of New York, on "The Treatment of Angiomata by Boiling Water." This paper was discussed by Drs. Rodman and Chandler.

The next paper on "Gastro-Uterine Disease," was presented by Dr. J. M. Rector, Jersey City.

Dr. Philip Marvel, of Atlantic City, presented the report on "Progress in Medicine and Therapeutics."

Dr. Marvel then read the report of a case of Albuminuria and presented the patient.

Dr. E. S. Fogg, of Bridgeton, read a paper on "Gastric Ulcer."

A paper on "Some Abuses and Uses of Cardiac Stimulants," was read by Dr. W. Blair Stewart, Atlantic City.

*The Society then adjourned until 3.45 P. M.*

(Continued in November issue.)

## URIC ACID THEORIES.

"No matter how abundantly the results of scientific research are published, nor how carefully the leading clinicians controvert the mistaken ideas of a previous generation, a large proportion of the unprogressive will cling to the most worn-out theory or system for no better reason than that the idea once secured a firm place in their mental armamentarium and that it would require an effort to dislodge it."

\* \* \* \*

Furthermore, as Billings has said, the theory, which was accepted at one period by the medical profession, becomes at a later period the theory and property of the laity. And thus many manufacturers of patent or propriety remedies wax rich selling a 'solvent' which does not dissolve a substance that does not accumulate in the 'system' and does not cause a host of ills."

\* \* \* \*

"No advance in physiologic chemistry and pathology, no amount of refutation of his claims, seem to have interested him (Haig) or swerved him in the least; for in his newly published 'Epitome' on uric acid, he ignores everything but his own cherished beliefs, and calmly follows them as they lead to the conclusion that appendicitis, consumption and uterine fibroids are all expressions of the pernicious effects of uric acid, and due in turn to meat eating."

\* \* \* \*

"It will be readily granted that the advice as to diet, hygiene and therapy recommended on the basis of this theory, has often been productive of excellent results, and probably seldom or never harmful; but real progress can not be made on a basis of error, and it is necessary to appreciate the fallacy of much of the talk concerning uric acid."

\* \* \* \*

"Billings has tersely summed up the results of our studies (on the physiology of uric acid) in the following words: 'Some of the fallacies of uric acid are, therefore—(1) That uric acid is toxic; (2) that it is a causative factor of any disease except gout; (3) that 'uricacidemia,' meaning acid blood, does exist; (4) that the chemical reaction of blood may be altered by the medicinal quantities of the alkalis or by diet; (5) that uratic deposits may be dissolved out by the administration of alkalis; (6) that lithia is a uric acid solvent of unusual potency; (7) that uric acid is an abnormal constituent of the urine; (8) that an excess of uric acid in the urine at any one time, or a deficiency at another time, indicates an abnormal condition in reference to uric acid; (9) that rheumatism is due to uric acid.'—*Journal American Medical Association*, August 20, 1904."

All people, no matter what their walk in life or their life's work, need constant instruction in their duty and in those things which pertain to the best and the right work. Therefore we have trade journals of all kinds; therefore we should have a medical journal, owned and controlled by the State Society in every State in the Union.

Not only should it be the duty of every State Society to publish its own journal, but to my mind it is the only way in which full and complete organization can be secured, and when secured, maintained. The problem of keeping up interest and maintaining the medical organization is a large one. Your editor has the major portion of the work on his shoulders, for your journal must accomplish the task. He will have much work and plenty of criticism.—*Philip Mills Jones.*

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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OCTOBER, 1904.

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

### NEW JERSEY AGAIN ONE OF THE THIRTEEN ORIGINAL STATES.

**Another State Society Journal.**—One of the most encouraging signs in the way of organization of the profession is the doing away with the old transactions, which came out once a year, and in the majority of instances were not even opened, and the substitution thereof of the monthly journal. Among the latter, we welcome the *Journal of the Medical Society of New Jersey*, No. 1, of Vol. 1, having just been received. It has adopted as its title page one similar to that of the *Journal of the Michigan State Medical Society*, which in turn copied the general style of THE JOURNAL of the American Medical Association. The first issue of the New Jersey Journal is a very creditable one, and promises to be of much value to the profession of the state. The editor is Dr. Richard C. Newton, of Montclair. There are now *thirteen* [italics ours] state societies that are journalizing their transactions, namely: Arkansas, California, Colorado, Illinois, Kansas, Kentucky, Michigan, Mississippi, Missouri, New Jersey, New York, Pennsylvania, and Wisconsin.—*Journal American Medical Association.*

New Jersey was one of the thirteen colonies which started the Revolutionary war. Through almost incredible privation and suffering, she bore her share through eight years of warfare to a glorious victory.

To-day, by a curious co-incidence, she is one of the thirteen states that have united to start a warfare for better medical organization in order to defeat and drive out quackery, greed and ignorance.

To any one who appreciates Jersey pluck and endurance, it is evident that a glorious victory will crown her present undertaking.

This is part of a general movement throughout the United States to elevate the medical profession to the position in the body politic, to which the learning, the devotion and the altruistic spirit of its members entitle it.

Our sturdy Commonwealth will send men to the front, as she did in the Revolution, and again in '61, who will maintain the good name and honor of the State.

### THE DISPOSAL OF SEWAGE IN THE PASSAIC VALLEY.

It is impossible to exaggerate the importance of the effort now being made to relieve the Passaic River and all inland streams in the Passaic basin of pollution from sewage matter. Although the cities and towns in this basin have never had the right to pollute the Passaic River, or any other inland stream, to such an extent as to create a nuisance; nevertheless, the custom of discharging sewers into the river has been generally followed; and until within the last few years, but little, if any, objection to the practice has been apparent. Lately, the increase of population and consequent increase of sewage matter so discharged, acting together with the growth of enlightened public sentiment upon the subject of filth and pollution generally, have brought about a position which has, in many cases, led to litigation. Whenever the issue has been squarely presented, the decisions have been uniform against the right of cities to continue the pollution.

Recognizing that the present system of sewerage into streams is vicious and rapidly becoming dangerous, and that the municipalities must nevertheless have some outlet, the legislature has enacted a series of laws, carefully planned to afford relief to the public, and at the same time to provide for the necessities of the urban population. In 1898 an act was passed appointing commissioners to consider the subject of pollution of rivers and streams within the State, and to devise and report a plan for its prevention. In 1899 a further step was taken by passing an act designed to prevent the pollution of waters in the State, by the establishment of a State Sewerage Commission, having extensive powers of investigation of methods and of complaints, and also charged with



the power and the duty of creating, upon petition of two or more municipalities, sewerage districts. Sewerage systems in these districts were to be constructed and administered by District Sewerage Boards, which were to be appointed by Municipal Boards within the districts. This legislation was the result of a vast amount of study upon the subject on the part of those immediately interested, but it attracted no great amount of public attention.

In 1902 a somewhat more radical measure was adopted. An act was passed creating and defining the Passaic Valley Sewerage District, which includes all the municipalities draining, or likely to drain, into the lower Passaic. At the same time a general act was passed providing a system of government and administration for all sewerage districts which the legislature should establish within the State. This act lays the foundation for the creation of other sewerage districts in other parts of the State, and makes the scheme a general one.

The plan, however, was not yet in complete working order, and in 1903 the final step was taken by the passage of an act designed to carry into effect the plans which had been devised and reported by the state commissioners appointed under previous legislation. This act is called "An Act to relieve from pollution the rivers and streams within the Passaic Valley District," as established and defined by the act of the previous winter.

Briefly stated, by this act the sewerage commissioners of the district have full powers to construct a gigantic sewerage system, capable of taking the drainage of the entire district out to tidewater in New York bay, and to raise the necessary funds for so doing by issuing bonds, and by assessing the costs and expenses, (including the eventual payment of the bonds) upon the various municipalities within the district. Every municipality will be accommodated, and no sewage will flow into any inland waters. The completion of this plan, as it is intended to be carried out, will result in the restoration to

their natural purity of all rivers and streams in every portion of the State; and the resulting gain will be enormous beyond calculation. That it will be worth many times its cost must be apparent to every person who gives it a thought. We have so long been accustomed to think of these streams as open sewers, that their actual purification and restoration to the uses for which nature designed them seems almost an iridescent dream.

This law has been attacked in the courts upon various constitutional grounds. Several of the leading counsel of the State have been employed upon each side, and unquestionably every weak point of the act will be thoroughly exposed and discussed. The Supreme Court has already rendered a decision upholding the law, and the case has been taken to the Court of Errors and Appeals, where it is pending and undecided.

Whatever may be the motive of this opposition in the courts, it is, on the whole, fortunate. The general policy which prompts this legislation is one which will be adopted and used by every enlightened community. The pollution of streams by sewage must stop. It is well that the method of accomplishing this purpose here adopted should be subjected to the severest legal and constitutional tests which counsel can devise. If it is weak or defective, now is the time to find it out. If this method fails, another must, and will, be found. Its failure will not mean that any city on the Passaic has thereby acquired the right to continue to befoul the water of that river. If this law shall stand the test, it will doubtless form the model for legislative action in many States.

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#### THE HEALTH STATISTIC OF THIS STATE.

According to the 27th annual report of the New Jersey State Board of Health, the death rate for the entire State was 15.91 per 1,000 inhabitants for the year 1902, which is

the lowest figure for any year in 24 years, with the exception of 1898.

The population of the State in 1902 is given as 1,967,893 and the yearly rate of increase in population during the past 20 years has been 37,639 or 2.5 per cent.

At this rate the present population numbers 2,035,360—of which nearly half live in Essex and Hudson counties.

The total number of deaths was 31,319 of which 3,019 or about 10 per cent., were due to consumption, 2,421 were due to pneumonia, and 1,878 were caused by diarrhœal diseases of children.

Diphtheria carried off 683 persons and smallpox 432. Typhoid fever is next on the list with 428 victims, and scarlet fever, whooping cough and measles each caused over 200 deaths.

Of 41 New Jersey towns having over 5,000 inhabitants each, West Orange had the smallest death rate in '02, viz., 10.27 per 1,000, and Long Branch had the largest, viz. 21.50. It must be borne in mind, however, that summer resorts like Long Branch have a large floating population, amongst which are many invalids, so that the high death rate is not fairly chargeable to the town.

The small and gradually diminishing death rate is highly creditable to the State and to its sanitary authorities.

Of the 31,000 and odd deaths, 9,597 or nearly a third, were caused by the more or less preventable diseases. There is, therefore, every reason to expect a still further reduction in the annual death rate as the health boards become more efficient and the people become better educated in matters of hygiene and sanitation.

In one class of diseases especially, a gratifying reduction of the death rate is reported, viz., in the diarrhœal diseases of children. For '02 the rate was 9.54 per 1,000, while from the 20 years from '79 to '98 the average yearly rate was 21.46 per 1,000. In the words of the report itself, "the number of deaths among children under 5 years of age is one of the recognized tests of the degree of civilization attained by any given

community, and it also indicates to some extent the degree of efficiency which has been attained in the local sanitary administration."

Judged by the rule just enunciated, New Jersey may justly pride herself on her advancement in civilization and on the efficiency of her health authorities.

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For want of space we must forego comment upon certain other features of this report. We commend to the perusal of every one interested, the special reports from the various experts employed by the Board of Health.

Of these, perhaps, the most important is that of the director of the Laboratory of Hygiene. After reading this admirable paper, we can but second heartily the implied recommendation of the director, that the plant should be enlarged and more assistants and better facilities be provided for the prosecution of this branch of preventive medicine; the importance of which is so far-reaching, that it is only beginning to be appreciated even by the best educated and most scientific.

\* \* \* \*

*The Newark Evening News* completed its twenty-first year on September 1st, 1904. We have faithfully read that paper for many years and it gives us pleasure to testify that we have never found it on the wrong side in any question affecting the welfare of this community. It has stood up bravely for honesty in public affairs and for all legislation calculated to benefit the health and happiness of our people.

We remember with gratitude its powerful aid in securing the legislation needed to establish the State Sanitarium for Consumptives. Its course in reference to child labor and many other vital questions, in which we, as physicians, are especially interested, has always commanded our approval.

We beg to extend our heartfelt congratulations and best wishes to our powerful neighbor.



### THE STATE SANITARIUM.

While the committee of the State Society was laboring for the establishment of the State Sanitarium for Consumptives, we well remember the bitter opposition which certain politicians openly and covertly displayed toward this beneficent measure, which was finally carried through chiefly by the generous and statesmanlike efforts of our present chief executive.

We are convinced that no act of his administration has met with more general approval than this.

The effort to stamp out the great white plague, is, we are thankful to say, becoming universal throughout the civilized world.

And our citizens, so far from wishing to shirk their obvious duty toward the poor consumptives, are anxious to extend and increase the work which the state has undertaken in their behalf.

All honor to Governor Murphy for his attitude upon this momentous question. We embrace this opportunity to publicly thank him.

Although we have made several inquiries we are not yet in a position to make any positive statement in regard to the Fellows' Prize Essay. We hope that another month we can announce the subject for the next essay, and also give a short history of the entire matter, with the names of former successful competitors. We believe that with this early notice a number of good essays will be offered in competition for the prize next year.

As the colleges open their doors and begin their fall sessions, we are reminded that while New Jersey has one of the best technical schools in the country at Hoboken, and an exceedingly richly endowed theological school at Princeton, and while Princeton University can easily substantiate its claim to rank well within the first half dozen colleges in the United States, New Jersey has neither a law school nor a medical school.

In our opinion the time is ripe for either Rutgers or Princeton to begin the teaching of both law and medicine.

Apropos of the recent strikes in the meat packing industry, and Dr. Wiley's proposed experiments, to be conducted at Washington jointly by the packers and the Chemical Bureau of the United States Agricultural Department, in order to determine the wholesomeness of foods that have been kept in cold storage, we are reminded of an assertion of Professor Lorenz, made some months ago at the conclusion of his visit to the United States. The professor asserted that the undue prevalence of appendicitis in this country is owing to the fact that Americans are all more or less septic from eating cold storage meats.

The departure of Dr. Osler from Johns Hopkins, to accept the Regius Professorship of Medicine at Oxford, means apparently an irreparable loss from the leaders of medical thought in America. But we must remember that men like Osler belong not to one section, nor even to one nation. They belong to the world. And his influence for all that is best in scientific medicine will be felt in America whether it is exerted from Baltimore or from Oxford.

It is said that one of the county medical societies, having been aroused by the too frequent mention of the names of some of its members in the secular prints has adopted the following device to mitigate the practice.

The press notice shall be clipped and pasted in a scrap book, not the private scrap book of the offender, but a society scrap book, where it shall be exposed to the view of all the members. To render the discomfiture of the enterprising practitioner the more complete, he shall be required to write in the scrap book any explanation of his conduct which he may have to offer.

**ERRATUM.**—Owing to our excessive modesty we stated last month that the membership of the State Society is over 1,122, whereas the membership actually exceeds 1,250 and is growing.

**MARRIED.**

**Dr. Otto Wagner**, late house surgeon at the Elizabeth General Hospital, was married to Miss Gertrude Elliott Daniels, in New York, on August the first. The doctor will practice his profession in Elizabeth.

**Dr. Kirkland Benjamin**, of the Essex County Hospital for the Insane, to Miss Helen Mercer.

**Dr. Edward Mathias Zeh Hawkes**, of Newark, was married to Miss Mary Everett, of Minneapolis, Minn., August 29th.

**OBITUARY.**

**Dr. Henry Tuck**, died at his summer home Seabright, N. J., September 2nd, aged 62. He graduated from Harvard University in 1867, and had been for many years connected with the New York Life Insurance Company, of which, at the time of his death, he was vice-president and medical director. He was a veteran of the Civil War.

**Dr. Edward Payson Buffet**, of Jersey City, died of disease of the heart on September 9, in his seventy-first year. He was born at Smithtown, Suffolk County, L. I., on November 7, 1833. He was graduated from Yale in 1854 and from the College of Physicians and Surgeons in N. Y. city three years later. He moved to Jersey City in 1858. He was for many years a visiting surgeon to Christ Hospital and surgeon to the City Hospital. He was a member of the Hudson County Medical Society.

**Dr. John Richie** died in the New Jersey State Hospital for the Insane at Morris Plains August 11th, 1904. He was born in England June 18th, 1815, the date of the battle of Waterloo. He had traveled extensively, settling in Succasunna during the Civil War, and had practiced there many years. He joined the Morris District Medical Society at the time of the re-organization in 1873.

At that time he was held in high esteem as a surgeon and was noted for his kindness of heart.

**ITEMS.**

**Dr. Archibald Mercer** has resigned as visiting physician to the Newark City Hospital, and has accepted the position of physician emeritus to the institution.

**Dr. Theodore F. Wolfe**, of Succasunna, has recently published an interesting paper on Dothey's Hall.

The following gentlemen have been appointed members of the staff at Saint Elizabeth's Hospital, Elizabeth: Drs. John P. Reilly, Victor Mravlag, Stephen T. Quinn, Thomas E. Dolan and James S. Green, all of them members of the **Medical Society of New Jersey**.

Mount Carmel Hospital in Orange will contain about 30 beds beside a maternity ward and children's wards. It will be opened about November 1, unless the growing opposition amongst some of the most influential Roman Catholics in the Oranges, including Fathers Fleming and Boylan, shall prevent it.

**Dr. R. C. Barrington** is president, and **Dr. John J. Flynn** secretary, of a physicians' protective association recently formed at Mount Holly.

**Dr. Ferdinand Sauer**, superintendent of the free medical dispensaries in Jersey City, made a report to the Board of Health a few weeks ago calling attention to the great prevalence of diarrhoeal diseases amongst the children in that place and alleging the impurity of the dairy milk as the cause of the trouble.

Of 260 samples of the milk subjected to analysis 66 were found to be 25 per cent. below the standard required by the State law, and the presence of formaldehyde was detected in 15.

**Dr. G. H. Gage**, house physician at the Elizabeth General Hospital, has resigned to enter upon the practice of his profession near Rochester, N. Y.

The Clinical Society of the Elizabeth General Hospital and Dispensary will hold its annual meeting the third Tuesday in October.

**Dr. Obadiah H. Sproul**, of Flemington, has retired from the Board of Trustees of the State Sanitarium for Tuberculosis.

The regular quarterly meeting of the Morris County Medical Society was held at the Mansion House, Dover, September 13th. **Dr. Geo. L. Johnson** read a paper on urethral stricture.

The Morristown Medical Club met September 21. The subject for discussion was epilepsy and **Dr. T. B. Prout**, of New York, was to read the paper.

The Orange Mountain Medical Society held their first fall meeting September 30. Drs. Harvey, Chandler and Francis, the committee on surgery, were to discuss the subject of gall stones.

By the will of the late **Dr. Alfred W. Warden**, of Weehawken, the sum of \$1,000 is bequeathed to the New York Academy of Medicine.

**Dr. William H. Westcott**, of Berlin, was seriously hurt in a collision with an automobile, September 2.

**Dr. Theodore G. Davis**, of Bridgeton, will spend the winter in California.

**Dr. Frank D. Vreeland**, of Paterson, was injured recently by a fall from a trolley car.

**Dr. Russell G. Andrew, Jr.**, of Atlantic Highlands, a coroner of Monmouth County, was seriously if not fatally injured last month, while riding in a private motor car, on the Fort Hancock Branch Railroad. The car ran off the track.

A child which had been bitten by a rat on the arm, was brought to the City Hospital in Jersey City recently. The father had bound the limb so tightly with a handkerchief, that he had, probably unwittingly, prevented a fatal hemorrhage, as it was found on unbinding the limb that one of the large arteries had been wounded.



Early in September five glandered horses were discovered in Hudson County. The State Board of Health, in conjunction with the Jersey City Board of Health, is endeavoring to prevent the further importation of glandered horses into the State.

Dr. W. S. Foster, of Flanders, had a thrilling adventure recently. In driving over the railroad track he was surprised by the approach of a train at high speed. He had barely time to pull his horse off the track when the train dashed by. The frightened horse became uncontrollable and dashing into the moving train was killed. The doctor almost miraculously escaped serious injury.

From one-sixth to one-quarter of the 600 members of the National Assembly of France are medical men.

A horse-shoer and his wife happening to be sick simultaneously, were attended by the same doctor, who charged a double fee for each visit. The horse-shoer disputed the bill, declaring that a single fee was sufficient to pay for a single visit.

The wise medical man bided his time but got his span of horses shod by the horse-shoer and when the bill came in for shoeing two horses declared that it was double what it ought to be, since both horses came at the same time and a single fee was enough pay for one visit.

A certain veterinarian, whose father was a well-known physician in Western Massachusetts a generation ago, used to say that whenever they both got a call to the same farm (which was perhaps miles out of town) they were in the habit of driving over together.

The father would be called to some member of the farmer's household, probably the careworn and overworked housewife, while the son was needed for the "stock." The physician's fee of two dollars would be "hung up" to be paid later, if at all, in wood or apples, while the horse-doctor, who did not do business that way, would receive a five dollar note before he left the farm.

The oldest married couple in the United States is believed to be James Davis and wife, negroes, now living in Texas. They celebrated the ninety-second anniversary of their wedding recently.

Davis is 116 years old and his wife is 110. He was born in Jones county, Ga., and she was born at Mount Sellers, Ga. They spent seventy years in slavery. Their owner, Mrs. Sarah Davis, brought them to Texas in 1840. A son of Mrs. Davis is living and has a record of the birth and marriage of this couple handed down from his great-grandfather.

Drunkenness has been added to the already imposing list of maladies which oculists pretend to cure by the relief of eyestrain. The craving for alcohol may be, and often is, a nervous affection, and if the source of the affection is in the eyes, according to the argument of a Chicago oculist at a recent conference in Milwaukee, resort must be had to glasses that cheer and not inebriate. We respectfully suggest that the authorities at the Subway Tavern be required to have an oculist on hand to offer his services to all who apply for an eye-opener.—*N. Y. Times.*

## PUBLIC SHOOOL PABULUM.

### HOTEL SCHOOL-KILL.

Owners: The public.

Proprietors: The school commissioners.

#### EIGHTH GRADE BANQUET.

Master of Ceremonies: The city superintendent.

Head Waiters: The principals and the general supervisor.

Waiters: The school marms.

Rule 1. Each guest must eat of every article on the Menu Card, especially of the Entrees.

Rule 2. All incivility on the part of the waiters is to be excused; they have so much food to serve that it makes them tired.

#### MENU.

	Soups	
	Consomme of Language and Composition	
	Fish	
Warmed Over	Arithmetic	
	Warmed Over	American History
	Meats	
Algebra		English History
Geography		Technical Grammar
	Vegetables	
	(served in small orders only)	
Nature Study	Physiology	Civics
Spelling		Bookkeeping
	Entrees	
	(Hotel School-Kill is justly proud of its Entrees.	
	Each is prepared by a special chef)	
Manual Training	Drawing	Music
Penmanship		Sewing
	Ices	
	Literature	
	Dessert	
Mental Dyspepsia		Nervous Prostration
	A Dunce Cap.	

A short story with a moral: Child aged six. Feeds chickens. Partakes with them. Colic, fever and vomiting. Rising young practitioner summoned. Case growing serious. Prominent surgeon called. Diagnosis appendicitis. Operation advised—no alternative. Ambulance summoned. Prominent surgeon automobiles to hospital. Time midnight. All hands turned out. Anaesthetizer and assistant surgeons summoned. Nurses lined up and inspected. Cat-gut reboiled. Dressings resterilized under pressure. Every one puts on rubber gloves.

Meantime family think of old doctor with white whiskers. Old doctor at lodge. Dragged out. Sees child. Orders two gallons of hot water. Stands child on head and begins injecting water into bowels. Child passes a teacupful of kernels of corn. Immediate relief. Telephone message to hospital. Tableau.

There should be no hesitation about organizing a County Medical Society because its membership would be small. When physicians will not do so, or will not attend their County Medical Society because its meetings are small, they do not understand the value of contact with others of their profession. They do not realize that modern medicine has been built up by the contact of one mind with another. A vital difference between the physician and the quack, is that one recognizes the importance of working with his fellows, while the other does not.—*Edward Jackson.*

## CLINICAL DEPARTMENT.

## INTERESTING CASES OF ABDOMINAL PAIN.

By E. B. SILVERS, M. D., RAHWAY, N. J.

A mechanic 35 years of age, good constitution and of good habits, was taken suddenly ill on the cars going to his daily work; so severely that he stopped off at the first station and returned. After walking a short distance from the depot he fell to the ground doubled up with increasing pains. He was taken by a passer-by to the nearest saloon and given freely of gin, ginger and soda. I subsequently learned that he had eaten a light breakfast which he had thrown up. The bowels were not constipated. I gave him freely of a mixture of magnesia, sub-nitrate of bismuth, aqua-camphor, ginger and Hoffman's anodyne with no relief.

A hypodermic of  $\frac{1}{2}$  grain morphine 1-125 atropia was given with no relief. Recognizing the man I had him taken to his home and after a suitable interval, repeated the hypodermic, giving one-half of the former dose, still with no perceptible relief. I then introduced a soft catheter smearing it with a mixture of one drachm fluid extract belladonna to one ounce of basilicon ointment, drawing only about four table spoonful of urine and washed out the bladder with a solution of boracic acid. While the instrument remained in the bladder he was fully relieved. But on its removal, the pain returned with great intensity and I was urged by the patient to re-introduce it. I did this and like relief was obtained. When on a careful examination I found that the pain started from the right kidney and followed the course of the ureter to the bladder. I then made up my mind it was a case of renal colic with possibly the passage of some concretion. The catheter was kept in as it was the only relief he obtained, and a mixture of fluid extract cannabis indica, aqua-camphor and acetate of potash was given at short intervals, when on removing the catheter permanent relief was obtained. In three days he was able to return to his work. No signs of any concretions were discovered.

A similar general abdominal pain recently occurred in a lady patient. It was treated on general principles. After the bowels had been cleaned out relief was obtained only after a hypodermic of morphine. A careful examination showed the pain to be located over the gall-bladder, either from inspissated bile or gall stones. Permanent relief was obtained by the administra-

tion of 5 grains every three hours of salicylate of soda, which I believe from frequent using, is the only reliable remedy for thickened bile or gall stones. The deductions were that in all cases of general abdominal distress, when the intense pain cannot be definitely located, after the bowels have been freely cleared out, to look for the above named local sources of the trouble. And if they prove to be like the above enumerated cases, use the medication above specified and so successfully used. The salicylate of soda I firmly believe is a specific for thinning the bile and dissolving gall stones.

## CORRESPONDENCE..

MEDICAL RECORD,  
51 Fifth Ave., New York.  
EDITORIAL OFFICE.

September 15, 1904.

Dear Doctor Newton:

I congratulate you on the first issue of your State Journal and welcome you to the ranks of the harassed and abused medical editors. \* \* \*

Yours sincerely,

THOMAS L. STEDMAN.

## NOT SO SURE OF IT.

The laird had been sick, and when the doctor called one morning he said to Thomas, the faithful servant:

"The master's temperature will not be so high to-day, Thomas."

"Ah, weell," said Thomas, "I'm nae sae sure about that. He dee'd last nicht!"—*The Presbyterian*.

## IMPORTANT NOTICE.

The regular examination of the State Board of Medical Examiners will be held in the Capitol Building, Trenton, on Tuesday, Tuesday evening and Wednesday, October 18th and 19th.

Examinations will be held in the following subjects:

- Materia Medica and Therapeutics.
- Obstetrics and Gynecology.
- Practice of Medicine, including physical diagnosis and diseases of the skin, nose and throat.
- Surgery, including surgical anatomy and diseases of the eye, ear and genito-urinary organs.
- Anatomy.
- Physiology.
- Chemistry.
- Histology, Pathology and Bacteriology.
- Hygiene and Medical Jurisprudence.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D. 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the authors of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.

Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.



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The next meeting of the American Medical Association, Portland, Oregon, July 11-14, 1905.

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## RECENT PROGRESS IN BACTERIOLOGY.

By JOSEPH MCFARLAND, M. D., PHILADELPHIA.

(Read at the 138th Annual Meeting of the Medical Society of New Jersey.)

*Mr. President and Gentlemen.*—I accepted your kind invitation with considerable hesitation, because the subject assigned to me, viz., "The Progress of Bacteriology," was made peculiarly difficult by the fact that comparatively few important additions to our knowledge have been made during the last year. I hope, therefore, that you will not be displeased if I shall place a liberal construction upon the term Bacteriology, and make it cover the whole subject of micro-parasitology.

During the past year no new micro-organisms of importance have been discovered. The majority of investigators have busily engaged themselves in the problems suggested by Ehrlich, and in his "Lateral Chain Theory of Immunity," some endeavoring to support and others to controvert his views. Many not so employed have occupied themselves with

the problems arising from the remarkable position taken by Koch upon tuberculosis, and a large number of men whose fertility of mind would otherwise prevent their being silent, are at present, members of commissions appointed by various governments for the final settlement of this most vital question whether the tuberculosis of animals is communicable to man.

Undoubtedly you would be wearied should I endeavor to lead you through the briefest review of those investigations bearing upon the Lateral Chain Theory of Immunity, and endeavor to interest you in such controversial matters as whether complementary bodies are specific or otherwise, whether it is possible that they are invariable in quantity, whether the amboceptor is a real or an imaginary thing, and what theoretical explanation may be given for the reactivation of serums whose solvent powers have been destroyed by the addition of lecithin and other chemical substances. Of more practical importance are the investigations in tuberculosis, but among these few have been published which contained enough facts to enable us as yet to draw any positive conclusions in regard to the matter. The convictions of the greater number of those in-



terested in the problems remain antagonistic to Koch. There seems to be so much evidence in favor of the transmissibility of the disease, that very much convincing experimental evidence must be given before we can conclude that tuberculosis of animals may not be, and is not, commonly transmitted to man.

In regard to other micro-parasites, interesting and fruitful investigations have led to important results. Thus, Castellani in his original investigations of African lethargy, came to the conclusion that the disease was caused by a diplococcus found in the cerebro-spinal fluid of a considerable number of the cases investigated, and which he called a "*hypnococcus*." The discovery of this microorganism led to further careful work upon sleeping sickness and to the subsequent discovery of a new parasite—a *trypanosoma* in the cerebro-spinal fluid. Having once observed this organism, much greater care was devoted to the study of the cerebro-spinal fluid, and less attention paid to the hypnococcus, with the result that in nearly all cases the trypanosoma was found in the fluid, and attention directed to it. Most careful geographical, clinical, microscopical and entomological investigations followed, until a British Commission was able to report that the geographical distribution of sleeping sickness corresponded with the distribution of a certain fly—the *Glossina palpalis*—which acts as the definitive host of the parasite, so that the evidence secured is quite convincing, that the African sleeping sickness is caused by the bite of this fly, through which there is transmitted a trypanosoma, which, when injected into a monkey, produced symptoms and lesions identical with those of African lethargy in man.

The discovery of the relation of the trypanosoma to disease of man naturally stimulated much investigation of trypanosomes in general. These parasites, called "trypanosomes" from two Greek words meaning "boring bodies" are elongate, somewhat flattened spindles, provided with a nucleus and centrosome, with an undulating membrane

and a long flagellum which runs along the edge of the undulating membrane, which projects a considerable length from the anterior end of the organism. The different species vary considerably in size. They have long been known as parasites of rats. The common species—*Trypanosoma lewisi* having been known since 1880, is an interesting curiosity. The importance of parasites of this class became apparent when Steele, in 1885, discovered the *Trypanosoma evansi*, which is the cause of the disease of horses known as *surra*.

Still more widespread attention was devoted to the subject when Plimmer and Bradford, in 1899, discovered the *Trypanosoma brucei*, the cause of tsetse fly disease of horses, mules, asses, cattle, buffaloes, antelopes, camels, hyenas, dogs, and smaller animals which is so serious a scourge in certain parts of Africa, and probably also of the mal de Caderas of south central Africa and Brazil. Following these comes the discovery by Doflein of the *Trypanosoma equiperdum*, causing the disease of horses known as "*dourine*." But comparatively little importance was attached to Trypanosomes until Dutton observed trypanosomes in the blood of a human being—an Englishman, who, having resided for some time along the Gambia river, suffered from a peculiar febrile affection, characterized by considerable emaciation, weakness, œdema about the eyes, injection of the skin and conjunctiva, and largeness and tenderness of the spleen and accelerating respiration and circulation.

It was thought for some time, however, that the presence of the parasites was more interesting than important, and its real significance remained to be pointed out by Castellani and his successors in their studies of African lethargy. Among the most important contributions is the work of Drs. Novy and McNeal, who have succeeded in cultivating two of the most important trypanosomes, the common one of rats—*Trypanosoma lewisi*—and that of nagani or tsetse fly disease—the *Trypanosoma brucei*.

This is most important, for a microorganism

ism must be first studied in artificial culture before its biological peculiarities can be learned, and before it can be hoped that modern methods of prophylaxis by vaccination, etc., can be successfully applied.

The year 1903 also gives us the confirmatory report of the French Yellow Fever Commission, which fully confirms the work of our own compatriots, who discovered the relation of the mosquito to the spread of yellow fever.

Still further confirmation of this work comes from the U. S. Public Health and Marine Hospital Service, whose latest working party headed by Dr. M. J. Rosenau, abandoning the *Myxococcidium Stegomyia* of their earlier working party, and the *Bacillus icteroides*, have repeated and confirmed all the work of the U. S. Army Commission.

From the Bitter Root Valley, of Montana, we receive information of the discovery of a new parasitic disease by Drs. Wilson and Chowning with a full account of the *Pirosoma hominis*, a small blood parasite related to the *Pirosoma bijenum* of Texas fever of cattle. This microorganism Wilson and Chowning found to be transmitted by the bite of a tick, the time of year during which infection occurred corresponding exactly to the time of year when the ticks made their appearance. The disease is febrile, characterized by a distinctive eruption, a slow course, and a peculiar fever.

Dr. Anderson, of the U. S. Public Health and Marine Service, who was sent to Montana for the purpose of investigating the disease, has fully confirmed the work of Wilson and Chowning, and we thus have a new parasite added to our already interesting list.

In the *British Medical Journal* for May 30, 1903, we find a paper by Major W. B. Leishman, of the Royal Army Medical College, of London, upon "The Possibility of the Occurrence of Trypanosomiasis in India." In this paper is described a peculiar parasite which Leishman mistook for a trypanosome. It was observed in the juices obtained by puncturing spleens in cases of what were called "Dum-dum" fever. Dum-

dum is a station about seven miles from Calcutta, and is notoriously unhealthy, malarial fevers of all types, dysentery and enteric being rife. Leishman had a short personal acquaintance with this station in 1890, and refers to this form of Indian fever as probably malarial in origin, and characterized by an extreme degree of cachexia, although the cases presented no very definite features distinguishing them from other and commoner forms of tropical cachexia, the chief symptoms being an irregularly remittent type of fever, grave anemia, progressive muscular atrophy, and great enlargement of the spleen. In none of these cases were malarial parasites found in the blood, nor were there any records of their having been found in an earlier stage of any of the cases. In making stain smear preparations from the splenic pulp, Leishman was struck by the appearance of enormous numbers of small round or oval bodies, two or three microns in diameter, which stained faintly with methylene blue and with hæmatein, showing a sharply contoured circular or oval shape, without detailed structure. When stained with Romanowsky's method, they were found to possess a quantity of chromatin of a very definite and regular shape, which clearly differentiated them from blood plaques or possible nuclear detrition. This chromatin appeared in the form of a more or less definite mass or ring, applied to which, though apparently not in direct connection with it, was a much smaller chromatin mass, usually in the form of a short rod set perpendicularly or at a tangent to the circumference of the larger mass. These little bodies were scattered freely among the cells, as a rule isolated one from the other, but here and there aggregated into clumps composed of from twenty to fifty members.

On July 11th, 1903, in the same periodical, Captain C. Donovan reports having observed the same bodies in three consecutive cases, though he regarded them as the resting stage form of the malarial parasite, and denies the probability of their being trypanosomes. The bodies have since been carefully studied and described by Ross, Mason,



Low and others, none of whom regard them as being in any way related to trypanosomes, but regard them as entirely new parasites, probably specific for the irregular fever described by Leishman as "dum-dum" fever.

Laveran places the organism among the piroplasmas, but Ross believes it to be an entirely new genus for which he suggests the name *Leishmania*, the full name of the parasite then being *Leishmania Donovanii* Laverani.

In all warm countries there are many cases in which vague fevers characterized by chronic enlargement of the spleen and cachexia, the cause of which has not been determined, which have usually been regarded as malarial without the presence of any malarial parasites being demonstrated.

It is not improbable that this Leishman-Donovan parasite will provide a means of properly classifying such affections and that we will be able in this way to recognize the nature of diseases not at present understood by the examination of fluids secured by splenic puncture. Thus far, however, no cases of the occurrence of this parasite have been reported in America, and its distribution may be limited to the Indian peninsulas.

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### THE BENEFICENT AGENCY OF PERITONEAL EXUDATES, ADHESIONS, APERISTALSIS AND METEORISM IN PERITONITIS.

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By HORACE G. WETHERILL, M. D.,  
OF DENVER, COLORADO.

(Read at the 138th Annual Meeting of the Medical Society of New Jersey.)

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It is eleven years since last I had the privilege of addressing the New Jersey State Medical Society. I was then one of you and deeply interested in all the concerns of your organization. At our meeting in Asbury Park, June 28th, 1893, I presented a paper entitled "Salpingitis and Pelvic Adhesions"; and it is with a desire to supplement some of the thoughts then expressed that this paper is now written. Two conclusions then reached were as follows:

I. "Adhesions about an inflamed tube or ovary are conservative in design and effect, and should not be disturbed till the disease back of them is removed."

II. "When the disease is removed the adhesions tend to absorption and usually disappear in time."

Both time and experience have served not only to confirm these earlier conclusions; but have led to the fixed belief that certain other inevitable accompaniments of peritonitis, which we have regarded as baneful, are in reality also somewhat beneficial in their agency.

If, instead of regarding adhesions and exudations about infection foci in the peritoneal cavity as a phase of the disease to be combated, we now look upon them as possessing a valuable conservative power, the direction and purpose of our treatment will be conformed to this belief. Likewise if tympanites and aperistalsis, or so-called "intestinal paralysis," can be shown to possess beneficial qualities, our attitude toward them as phases of the disease will be radically changed and their treatment correspondingly altered. It will scarcely be questioned that they are now generally regarded as wholly baneful in their effects, and that vigorous measures for conquering them are demanded, chief among which are active purges.

In both the prevention and treatment of tympanites and intestinal paresis, salts, calomel, castor oil and compound cathartic pills have heretofore been the vaunted specifics, and have held this place solely upon the theory that these symptoms of peritonitis were wholly vicious and to be overcome at any cost. Now that we are prepared to acknowledge that peritoneal exudates and adhesions may and do have a beneficial effect, though we formerly believed them entirely potent for harm, is it not worth while to inquire how far we may be in error in this other even more important question?

Starting with certain accepted and established basic principles of modern medical science it will be conceded:

I. That idiopathic peritonitis is a myth; that the disease is always either directly or indirectly of infective origin.

II. That transudation of serum, the formation of plastic exudates and adhesions, tympanites, peristaltic arrest and muscular rigidity are the first reactionary phases of the disease.

III. That the first effect of infective inflammation everywhere in the body is to bring about quiescence, muscular inactivity and physiologic rest in and about the parts involved.

IV. That the best treatment of all inflammation is based upon promoting such an arrest of functional activity. Inflammation of the heart, lungs, stomach and intestines, eye, larynx, bladder, pleura, peritoneum and joints are alike in this particular.

V. The health and life of the patient depend upon the limitation and localization of the infective process.

Now let us determine what the effects of plastic exudates and adhesions, of tympanites and aperistalsis—which so quickly follow all peritoneal infections—are to be, and what attitude we should take toward them in the treatment of the patient and of his disease. That all of these phases of peritonitis have in themselves the possibilities for harm we know very well. In fact, they have occupied a conspicuous place in our minds heretofore as the greatest menace of the disease. Their conservative agency in limiting and quarantining the focus of infection has been overlooked; and

we have worse than wasted our energies in combating the most potent conservative forces of nature, and our ablest allies.

Very recently there has been an inclination amongst us to concede the beneficent effects of the exudates and adhesions during the acute stages of the malady, and that even afterwards—the infection being removed—they were resolved and disposed of, in most instances, so as not to be a serious menace to life and health. This beneficence has been and still is denied for tympanites and aperistalsis, however; and it is with the hope that I may help to establish such a place for them that I write.

There is much in a name. "Intestinal paralysis" implies loss of power and function, and incapacity to act in the interest of the individual. Considered from such a standpoint it calls for active measures for the re-establishment of peristalsis, even though the remedies employed are known to be exhausting and depressing in effect.

"Aperistalsis" and "peristaltic arrest," however, are words which may convey a very different notion of the origin of the conditions described. If they are regarded as a natural sequence of the toxemia of peritoneal infection and inflammation, and conform to the accepted facts regarding muscular inactivity elsewhere in the body under such circumstances, our notions of their treatment will be materially altered. Then the natural inclination to promote mechanic and physiologic rest of the parts will be uppermost in our minds, as it would be with a joint or a lung.

Hence I protest against the use of the words paralysis or even paresis in this connection, as conveying a wrong impression of the pathology of this syndrome and as leading to serious and irrational errors in treatment. Aperistalsis and peristaltic arrest are better terms. They convey a better idea of the true significance of the symptom and promote rational considerations of treatment. "Peristaltic inhibition" is objectionable also. It conveys an impression of a physiologic function, while the process under consideration is clearly the result of a pathologic toxemia of bacterial origin.

The modus operandi of the production of peristaltic arrest and meteorism in peritonitis is not perfectly understood, though the first is believed to be due to the toxic effect of bacterial products upon or through the plexus of Auerbach or Meissner, and the second the result of bacterial action within the intestinal canal, which is excited in some obscure way from the same sources, and which is exaggerated by the decomposition of the intestinal contents but *is not dependent upon such contents or such decomposition*.

There is much misapprehension also of the true source of danger in the presence of peristaltic arrest and meteorism. Acting upon the supposition that the greatest danger lies in the toxemia, or auto-intoxication from the decomposition of the intestinal contents, we have purged the patient to get rid of this, thus promoting the diffusion of the more dangerous toxins and of sepsis throughout the peritoneal cavity. Nobody maintains that auto-intoxication from intestinal decomposition and extreme distension of the abdomen from tympanites, aperistalsis and antiperistalsis are not dangerous in themselves. But as results of a more malignant process outside of the intestinal tube, and in comparison with that, they drop to a

place of secondary importance; and, if necessity for treating them arises, the treatment must be directed with a due regard for their more dangerous progenitor.

As signified in my title, I believe, and hope to lead others to believe, that these secondary phenomena of peritoneal infection have definite beneficent agencies; that properly considered and rationally treated, their beneficent qualities far out-weigh their dangers; and that we must reconstruct our ideas of the pathology of these conditions, and make our treatment conform thereto.

Let us concede that peritoneal exudations and adhesions play a very important part in protecting the patient from the diffusion of infection during the acute stages of the disease, for we have all seen this exemplified many times in a walled-off appendix or tubo-ovarian abscess. Conceding this, can it be questioned that aperistalsis also favors the formation of a protecting barrier about the focus of infection, the very loops of the arrested intestines themselves serving to form a part of the abscess wall? Can it be questioned that meteorism, through ballooning the intestines and increasing intra-abdominal pressure, also serves the same beneficent purpose by bringing the gut loop to loop closely about the infecting focus and splinting the abdominal wall and diaphragm so that not even the respiratory movement shall disturb the newly established quarantine station?

The surgeon who now ruthlessly breaks down the protecting wall of an acute appendiceal abscess in a too zealous attempt to remove an appendix lays himself open to censure, according to the prevailing opinion of the best surgeons of to-day. How much less culpable is he, who, in a vain attempt to eliminate a minor evil with purges, establishes active peristalsis and thus breaks down or prevents the construction of this protecting barrier in its formative stage?

After all intra-abdominal operations the same reasoning holds good. Although we should make a great effort to empty the intestines before operating, we should do all in our power to promote peristaltic arrest after operation. For we know that under the most favorable circumstances our asepsis of hands and skin cannot be made absolute and that there always remains a certain degree of residual infection from these sources, that the peritoneum must take care of. It is incumbent upon us to minimize the virulence of this residual infection to the utmost through the exercise of the best known methods of antiseptics. It is also our duty to favor the natural resistance of the peritoneum to the development and distribution of the infection and its toxins. This is accomplished, among other measures, by maintaining aperistalsis.

Even anti-peristalsis, or so-called reversed peristalsis, is not without its beneficent agency in so far as it serves to empty the intestines of decomposing and fermenting materials which are producing auto-intoxication. If it be supplemented by the judicious use of the stomach syphon, even this serious and distressing condition may be made to serve some good end.

During the pre-operating period opium was our sheet anchor in the treatment of peritoni-



tis, and from my standpoint it is easy to understand how its good results were attained. It promoted peristaltic arrest and even tympanites; and, in spite of its interference with the elimination of the bacterial toxins and intestinal ferments, its good effect in localizing the infection was paramount, and far and away better than the treatment with salts and calomel and jalap.

Were I, or one of my very dear friends in the third, fourth, fifth, or sixth day of a peritonitis of appendicular origin, and obliged to make a choice between the opium treatment of some gray beard, with half a century of empiricism back of him, and some modern surgical enthusiast of the "operate as soon as the diagnosis is made" sort, I would not hesitate a moment in choosing the former. However brilliant and dexterous and famous an operator might be, I would not select him if he had a penchant for operating on sight; and, for removing the appendix regardless of its situation and surroundings.

No human care or skill can eliminate the fearful risks of such interferences with the natural limiting barriers of the disease. Furthermore, if famous, such a surgeon must bear the responsibility of the use of his great name and reputation in furthering untimely and injudicious operative work in the hands of many who are less capable and skillful than he. Immediate and ultimate operations (upon first or second day as well as interval cases) are known to be extremely safe. I am far from alone in believing, on the other hand, that intermediate operations are always attended with a high mortality and that, indeed, they are sometimes directly homicidal.

Rationally treated or left to themselves, adhesions and exudates, peristaltic arrest and tympanites play their beneficent parts during the acute stages of the infective process, and wall off or quarantine the point of invasion if it be in their power to do so. After the virulence of the attack has subsided and the surgeon has come to the rescue in the interval and removed the source of infection, these secondary phases of the disease disappear. Excepting such permanent adhesions as have resulted from the destruction of the peritoneal endothelium and the union of sub-peritoneal tissues—and these are rare—there will not be a vestige of the old process found after a few weeks or months. The tacking together of approximated and agglutinated surfaces is temporary, and such adhesions undergo speedy resolution after the infection is eliminated and normal peristalsis is re-established.

#### Treatment.

Assuming that our premises are well founded and correct, the rational management of these co-incident expressions of peritonitis begins with prevention. This comprehends the treatment of salpingitis, appendicitis, typhoid fever, gastric ulcer, gall bladder diseases, traumatism, etc., by such dietary and medicinal means as tend to prevent the diffusion of a peritonitis, should it arise from such a primary source. It pre-supposes such preparation for abdominal operations as will minimize all risks of infection and excessive intestinal fermentation. After operation it depends largely upon the exercise of a masterly inactivity in the care of the patient, at least so far as purges and some

other time-honored orthodox measures are concerned.

In this connection it is proper to add that milk as an article of diet should be forbidden in all of those conditions in which peritonitis is threatened, and before and after all intra-peritoneal operations. It is an ideal culture medium for the gas forming bacteria of the intestinal tract, and in my opinion is the worst form of liquid food that can be administered, particularly in typhoid fever, gastric ulcer, appendicitis and after abdominal operations.

When peritonitis occurs and the conservative forces of nature are called upon to fortify the individual against further invasion and diffusion of the disease by exudates and adhesions, meteorism and aperistalsis, we must treat them as allies. In extreme cases measures for the control of their excessive energy may be necessary.

Opium must still be regarded as a valuable remedy in the acute stages of peritonitis as it relieves pain, conserves the energy of the patient and promotes the peristaltic arrest which we desire.

Practically applied, this means actual fasting for all patients threatened with or suffering from peritonitis, and soup diet for those being prepared for intra-peritoneal operations. It means also no purges or cathartics for such patients during an attack, nor for some hours, or a day or two, before intra-peritoneal operations, nor for a week after operation and not until there is recovery from all symptoms of peritoneal irritation.

For the discomforts and dangers incident to extreme degrees of meteorism and anti-peristalsis, we may employ that safe and most satisfactory device, the rectal or stomach syphon, and stimulating rectal enemata containing glycerin, salts, turpentine, alum, castor oil, etc., as was suggested by Ochsner. *Against simple peristaltic arrest in the small intestines I believe that no remedy is necessary or justified*, as it is wholly beneficent in its effects and it will be maintained only so long as it is needed. Let it alone, and be satisfied with keeping the large hollow viscus at either end of the canal empty and free, and the rest will take care of itself besides taking care of the infecting focus. By this same token we are driven to conclude that such poisons as strychnia, atropin, nicotin and eserine salicylate administered for the purpose of promoting peristalsis under such conditions are also contra-indicated.

For about two years I have applied the principles here advocated to such cases of peritonitis as I have seen and to all of my patients who have had intra-peritoneal operations. It is the established practice at the Denver Maternity and Woman's Hospital. Without quoting cases, it is enough to say that my results have never been so satisfactory, nor my operative cases so comfortable.

Operators there are without number, any of whom may do the mere mechanical work of intra-abdominal surgery perfectly well; but the discriminating diagnostician and rationally conservative surgeon is not so common. He, who wisely pilots a desperately ill patient through the breakers and brings him to a safe harbor for repairs, thus avoiding the performance of perilous operations in the midst of a storm, is, after all, the best and safest captain.

I beg leave to thank you for according me so much of your valuable time, and for giving your attention to this dry topic, which is, however, one of great clinical importance. It is presented with the hope that my argument may seem rational to some of you, and that there may be those amongst you who will agree with me in my contention for "The Beneficent Agency of Peritoneal Exudates and Adhesions, Aperistalsis and Meteorism in Peritonitis."

### DISCUSSION OF DR. WETHERILL'S PAPER.

DR. EDWARD J. ILL, OF NEWARK, OPENED THE DISCUSSION AS FOLLOWS:

Mr. President: I am glad to hear so excellent a paper read at this day. It is full of wisdom and guarded advice. We all remember what wild talk there was on this floor some years ago upon this subject.

I am very much in sympathy with many things Dr. Wetherill has told us. With some, I beg to disagree. With the timid, his paper may prove a dangerous one. The conservative power of nature assisted by judicious treatment cannot be over-estimated.

Beware, however, of peritoneal inflammation as produced by intestinal infection. In these cases immediate operation should be the rule, and when we fail in this, disaster follows most unexpectedly; for the conservative adhesions do not always occur nor are they always safe. The gravest cases are those where, after forty-eight hours no exudate is felt. I am still under the cloud of a dreadful incident that caused the death of a promising young lady of eighteen. May it be far from me to be controlled by an impression. It is only a study of the tabulated and carefully reported cases that should control our judgment.

The conservative power of peritoneal exudates, and the disaster that awaits the case of peritonitis, if none are formed, cannot be over-estimated and our treatment must be directed to favor them. Early aperistalsis must be most beneficial especially so far as it acts as a constipating agent on the fecal discharges. I consider it a disaster, however, when gases do not escape within twenty-four hours after an abdominal operation.

A little tympanites as the reader says, may be beneficial, I dare not gainsay it, but excessive tympanites is certainly dangerous. The poisons of solid and fluid bowel contents do not compare in danger with those of the retained gases.

All agree on the infective origin of peritonitis and that rest of the intra-abdominal organs in this disease is most important. After operation I am always anxious when peristalsis has been established too soon, say before twenty-four hours. But I become more anxious if it is not established in thirty-six hours. This has reference to the evacuation of gas only. As to the movement of the solid contents of the bowel I fear it before the fifth day.

While it is true that intermediate operations show a high mortality, the cases where rupture occurs and general infection and death follow are frequent enough to place the surgeon in the unenviable position of a great responsibility when he operates and still more

so, if he does not. This has especial reference to peritonitis as produced by intestinal contents.

Ordinary pelvic inflammation the intermediate operation must remain the great exception.

In the non-operative treatment I can agree with my friend, except in one particular, that is, the administration of opium. In my opinion it should only be condemned. I have never seen any good from it, and when exhibited, it will not only prolong convalescence, but its most baneful influence is its direct effect on the excretion organs, inhibiting excretion. The most apparent effect of opium is a dry skin. When my patients have a moist skin I always feel cheerful as to their recovery.

The importance of the avoidance of food, both after the operation as well as in the acute stage of peritonitis, can be confidently recommended. The same can be said of the careful and thorough evacuation of the bowels before operation.

Dr. F. V. Cantwell, of Trenton, continued the discussion, saying, Mr. President: The best surgeon is not the one who knows how alone, but the one who knows when and how.

I would as soon think of resisting the deposit of callous around a fractured bone as to try to resist peritoneal adhesions in the presence of a local infection. Every move which nature makes in resisting disease is conservative. Symptoms are not pathologic. They are physiologic; inasmuch as they are normal under the circumstances. They are the normal efforts of the body to resist or throw off an invader. Every surgeon should early learn when to leave a patient alone. With what precision do wounds heal! Even too many sutures are ordinarily used. Whoever has carefully examined a harelip will admire the deftness with which this defect has been handled by nature.

Peritoneal adhesions are conservative, but nature is lavish and sometimes overdoes the thing. A fracture may unite viciously, or peritoneal adhesions may form, which cause obstruction or are painful. These, the surgeon can master.

If an organ is performing its functions normally that organ will resist any invader. For it is more the weakness of the fortress than the strength of the enemy which brings about surrender in death.

We are still groping in gloom for the truths of surgery. We are often like a child who finds a diamond, plays with it and throws it away. In the history of surgery we find many diamonds, which have been discarded, and treatments abandoned, which are afterwards found to be valuable. I am not prepared to throw away purges in peritonitis, and depend upon keeping the stomach and colon clean. We must remember that the small intestines are the absorbers of toxins as well as food, and in certain abdominal conditions the patient dies of toxæmia from intestinal absorption.

Dr. W. J. Mayo, of Rochester, Minn., was introduced and said: Mr. President, Ladies and Gentlemen:—It give me pleasure to meet you here to-night and to have heard the paper, just read. I would like to enlarge the discussion a little bit in regard to the question of diagnosis. It is well



that we should know exactly what peritonitis means. The doctor, in his paper, referred to one of the phases of peritonitis, i. e., the question of encapsulation, but there are others. For instance, we can say that in the peritoneum certain septic products can be eliminated in one or another manner. The question of absorption then becomes an important one; and it is true that to-day those who are doing much abdominal surgery are less and less inclined to drain. Yet it was believed, a few years ago, that it was very necessary that drainage should be instituted in every case. If we examine the powers of absorption we find that in the upper part of the peritoneum absorption is pretty rapid; but when we strike the pelvic region, absorption becomes actually retarded. I do not think the doctor has looked into the question of absorption as closely as he might. If we compare the methods of treatment of peritonitis extant to-day, we will find first, the method of Clark, in which by the position of the patient he makes the most of absorption. He raises the head of the bed and the fluid and septic products are turned upwards against the diaphragm. On the other hand, Fowler goes at it in a directly opposite way, using somewhat the same plan of treatment, but he elevates the head of the bed and throws the products down into the pelvic cavity and then inserts drainage and withdraws the products to the outside. Oschner's plan was encapsulation. In other words he so endeavored to treat the products of the inflammation that nature was unable to absorb them. He attempted to bring this about by starvation. I cannot agree with Dr. Wetherill regarding the beneficent effects of distension. Otherwise I can endorse most of what he has said. This question of encapsulation is one of the most important things for surgeons to consider, but I believe if we can get rid of the products before encapsulation takes place, or can prevent such processes and thereby check it, there will be no products to encapsulate and this gives a broader aspect to the question. For instance, in the region of the gall-bladder, I think it is a mistake to separate adhesions to get at gall-stones. They should be saved. This applies to appendicular and pelvic conditions as well. In a case of pus tubes, we find the sigmoid flexure plays the part of protector. An omental pad is also placed around and increases the possibility of encapsulation. In the pelvis nature does somewhat the same thing with the pus tube and covers it with the sigmoid. I cannot quite understand the doctor regarding what he says about distension of the abdomen. My position is somewhat like that of Dr. Ill. He dislikes very much to see gas accumulate. I think his position is the position assumed by the majority of surgeons in this country. There is no question of the danger of thorough fecal movements; but gas should be moved because when gas distends the intestine, bad results are sure to follow. I thank you very much for your attention.

**Dr. Wetherill** (closing): I think the differences pointed out by Dr. Mayo and Dr. Ill are more apparent than real. We all agree, for instance, as to the conservative agency of the exudates and adhesions over the peritoneum as already referred to. Regarding the matter of tympanites, I wish to qualify that and say that extreme degrees should be controlled and I believe they are dangerous of themselves. But I am obliged to Dr. Mayo for corroborating a statement that I was most anxious to impress, i. e., the power of the

peritoneum to take care to a considerable degree of infection. It is a source of pleasure for me to come here after eleven years absence and find that the opinions expressed then, which were severely attacked, are practically conceded by everybody tonight. I hope, if the opportunity occurs for me to come back ten or eleven years from now, there will be the same evolution in this direction and I hope to have the pleasure of seeing further concessions along these lines.

### INGUINAL HERNIA IN INFANTS.

By E. A. Y. SCHELLINGER, M. D.

SURGEON, COOPER HOSPITAL, CAMDEN, N. J.  
(Read by title at the 138th Annual Meeting of the Medical Society of New Jersey).

We cannot discuss this subject intelligently until we have fixed in our minds the reason infants have hernia. Unquestionably defective development is the most important predisposing cause.

The testicle which is formed below the kidney descends into the scrotum by the last month of intra-uterine life.

Preceding the testicle is a pouch of peritoneum, which afterwards becomes obliterated at its upper part and separated from the peritoneal cavity; the lower part envelopes the testicle and is called the tunica vaginalis. Now, this pouch for reasons we cannot always discover may not become obliterated; we then have our congenital defect. The hernia may not develop until later in life, not appearing at birth as the term congenital would imply.

Constipation, gastro-intestinal disturbance, extreme distension by gas, whooping-cough, bronchitis, crying and tight belly-bands are also causes of hernia.

About 25 per cent. of the cases of rupture give a family history of rupture. While hernia occurs at all ages, in a large proportion of cases it develops during the period of infancy.

Of 1,000 males ruptured, 175 are affected in the first year of life; while in a similar number of females, 91 develop the lesion during the first year. Except during the period of infancy, when the development of the hernia is due largely to congenital defect, the great proportion of ruptures occur during the active period of life, 15-35 years.

The various methods for the treatment of this condition may be classified under two heads; mechanical and operative.

Unquestionably, in infants, the truss should be given a fair trial, as a fair proportion are permanently cured; 58 per cent. under one year; 10 per cent. under four years. A description need not be given of the great variety of trusses, the object to be accomplished by a truss, should be the complete retention of the hernia without causing discomfort. A good truss should consist of a pad to cover the hernial orifice and a spring or band to hold the pad always in proper position. The pad may be made of hard rubber, celluloid or wood covered with leather. In some cases where the hernia cannot be retained by this variety of pad it may be controlled by a water pad. These can be made of any size and can be used on the youngest infant without discomfort. In rare cases, for example, emaciated infants, the worsted truss may serve a useful, but temporary purpose. It is much inferior to a properly constructed steel truss. We should see

that the pad rests over the internal ring rather than upon the pubic bone. In infants the truss should be worn both day and night for the reason that there is ground to hope for a permanent cure, hence the necessity of avoiding any chance of reopening a partially closed sac and canal. It is advisable to pay attention to the skin beneath the pad and avoid abrasions by bathing with alcohol.

As to the length of time a child should wear a truss. At the hospital for ruptured and crippled a truss is seldom left off until a period of two years has elapsed *after* the last appearance of the rupture. In infants under one year the truss should be worn about ten months. While it is true that a large number of the cases of infantile hernia recover simply by the aid of a properly fitting truss, in the course of one or two years, persistence in the use of this method should not be carried beyond this time, because it is not fair to permit a child to suffer the discomforts of wearing a truss for years, meanwhile running the risk of strangulation, when we have it in our power by operative means to effect a permanent cure.

An operation, I believe, is required in infants.

First. Where a child is being properly fed, but in whom a hernia after a fair trial is not retained by a suitable truss.

Second. Where part of the contents of the sac are irreducible.

Third. Where a truss has been worn for at least three years, with no apparent cure of the protrusion.

Fourth. Where a child has reached the age of three years, but has never worn a truss.

Fifth. Where the case is unable to obtain the care and attention requisite for a successful mechanical treatment, and

Sixth. Where a herniotomy has to be performed for strangulation.

## REPORT OF PROCEEDINGS

of the one hundred and thirty-eighth annual meeting of the Medical Society of New Jersey held at Hotel Chelsea, in Atlantic City, N. J., on June 4th, 6th and 7th, 1904.

### SECOND DAY.

*Monday, June 6th.*

After the adjournment of the General Session a meeting of the House of Delegates immediately followed for the transaction of miscellaneous business.

It was moved and seconded that the following gentlemen and other guests of the Society, whose names appear upon the programme, be invited to sit with the Society and be given the privileges of associate delegates.

Dr. W. L. Rodman, of Philadelphia, and Dr. W. H. Sledge, of Mobile, Ala.

*Motion carried.*

The presence of Drs. J. A. Wyeth and C. A. Lindsley, honorary members of the Society, was announced.

Dr. Wm. J. Chandler—I move the adoption of the By-Laws as printed in the Transactions, except those portions to which amendments have been offered at this meeting. Motion carried.

Dr. Wm. J. Chandler—I now move the adoption of the amendments, which have been proposed at this meeting, and which have been twice read and have lain on the table for one day. Seconded and carried.

I now move the adoption of the By-Laws as amended. Seconded and carried.

Dr. Wm. J. Chandler—I move that the following appropriations be made, and the Treasurer be authorized to pay them, subject to the approval of the Board of Trustees:

I. To meet the stenographer's bill for reporting the proceedings of this meeting.

II. To meet expenses incurred in publishing and distributing the Transactions.

III. To meet the expenses of the Recording Secretary's office to an amount not exceeding \$300.00. Seconded and carried.

Dr. Wm. J. Chandler—I move that the Recording Secretary be authorized to place the more valuable of the archives of the Medical Society of New Jersey, in a safe deposit vault and that the Treasurer be authorized to pay the annual rental. Seconded and carried.

Dr. Henry Mitchell—I request that authority be given me to select alternates to the delegates to the American Medical Association and corresponding societies, which are now in session in Atlantic City. If such authority exists in me, it has been overlooked and does not appear. I ask for more authority in order that I may appoint delegates. Authority given.

Dr. Halsey—In the absence of Dr. Marsh, a delegate to the American Medical Association, I move that the President be empowered to appoint an alternate. Motion carried and Dr. John W. Ward, of Trenton, was appointed alternate.



Dr. Senseman, chairman of Committee of Arrangements, made his financial report, showing receipts of \$120.00, and expenditures of \$126.50.

Dr. Halsey—I move you that the deficiency (\$6.50) be drawn from the treasury. Motion carried.

*Adjourned 12.10 P. M.*

**Second day— Monday, June 6. 2.45 P. M.** Meeting of the House of Delegates.

The President announced that according to the by-laws the first order of business was the report of the Nominating Committee.

Dr. Mecray—I have the honor to present the following report from the Nominating Committee:

#### REPORT OF THE NOMINATING COMMITTEE.

*For President*—Walter B. Johnson, Paterson.  
*1st Vice-President*—Henry W. Elmer, Bridgeton.

*2nd Vice-President*—Alexander Marcy, Jr., Riverton.

*3rd Vice-President*—Edward J. Ill, Newark.

*Corresponding Secretary*—E. W. Hedges, Plainfield.

*Recording Secretary*—Wm. J. Chandler, South Orange.

*Treasurer*—Archibald Mercer, Newark.

*Councillors*.—Thomas W. Harvey, First District, Orange; J. L. Leal, Second District, Paterson; W. A. Clark, Third District, Trenton; Daniel Strock, Fourth District, Camden; Philip Marvel, Fifth District, Atlantic City.

*Committee on Program*.—William J. Chandler, Alexander McAlister, for two years; Frederick F. C. Demarest, for one year.

*Committee on Scientific Work*.—T. R. Chambers, for one year; R. H. Parsons, for three years; N. L. Wilson, for two years.

*Committee on Public Hygiene and Legislation*.—Charles Young, three years; Joseph Tomlinson, two years; L. M. Halsey, three years; M. S. Ayers, two years; William Elmer, one year; C. J. Kipp, one year.

*Committee on Publication*.—William J. Chandler, South Orange; D. C. English, New Brunswick; H. W. Elmer, Bridgeton.

*Committee of Arrangements*.—Scudder J. Wooley, Long Branch; Edwin Field, Red Bank; John C. McCoy, Paterson; D. M. Forman, Freehold; E. Hollingshead, Pemberton.

*Delegate to the American Medical Association*.—L. M. Halsey, Williamstown; Alternates, H. Genet Taylor, Camden; Alexander McAlister, Camden; J. L. Leal, Paterson.

*Delegates to New York State Medical Society*.—William J. Chandler, South Orange; E. B. Silvers, Rahway; W. S. Jones, Camden; H. A. Wilson, Woodbury.

*Delegates to Pennsylvania State Medical Society*.—Philip Marvel, Atlantic City; H. A. Stout,

Wenonah; L. M. Halsey, Williamstown; Alexander Marcy, Jr., Riverton; George E. Reading, Woodbury.

*Delegates to the Mississippi Valley Medical Society*.—L. M. Halsey, Williamstown; Charles S. Heritage, Glassboro.

Asbury Park or vicinity is suggested as the next meeting place. Time, June 20th, 21st, 22nd.

It was moved by Dr. Reading that as there were no other candidates proposed for the offices of the Society, that the Secretary be authorized to cast the ballots for all of the nominees and for the adoption of the whole report of the Nominating Committee. Seconded and unanimously carried. The Secretary cast the ballot and the whole ticket was declared elected.

Dr. William J. Chandler—I wish to offer the following resolution: That the Second Vice-President be requested to prepare an essay to be read at the next annual meeting. Motion carried.

The Society then met in general session at 3.15 P. M.

A paper on "Vibratory Massage in General Practice," was presented by Dr. W. G. Schauffler, Lakewood.

Dr. Alfred Cramer, of Camden, read a paper on "Acute Catarrhal Conjunctivitis." This paper was discussed by Drs. Chambers, Hance, Ard, Reading, Wilson, Grey and Treganowan.

The report on "Progress in State Medicine and Hygiene," was presented by Dr. Edward E. Worl, Newark.

The Society then adjourned until 8 P. M. Thereafter followed a meeting of the House of Delegates for the transaction of miscellaneous business.

Dr. N. L. Wilson, of Elizabeth—I wish to present the following:

Whereas, bills for expenses incurred by members of committees in the performance of duties assigned to them by the Society, are sometimes rendered without items—

*Resolved*, That the trustees are hereby requested to approve of no bills, unless said bills are presented in a manner which will clearly show the purpose for which the expenditures are made, with each item separately stated. Motion carried.

*Adjourned 4.20 P. M.*

**Meeting of the Society in General Session, second day, Monday, June 6.** Evening session, 8 P. M. The annual address was delivered by the President, Henry Mitchell, Asbury Park, on "Preventive Medicine in New Jersey."

"Some of the Channels through which Investigations have Proven that Typhoid Fever may be Transmitted," was the subject of the annual address by the Third Vice-President, Henry W. Elmer, Bridgeton.

This subject was continued by the paper of Dr. W. B. Warner, of Red Bank, on "The Agencies through which the Infection of Typhoid Fever is Desseminated."

A paper on "Calomel and Intestinal Antiseptics," was presented by Alex. McAlister, Camden.

*The Society then adjourned until 9 A. M. Tuesday morning.*

### THIRD DAY.

*Tuesday, June 7th.*

MORNING SESSION, 9.30 A. M.

The first paper on "Inguinal Hernia in Infants," by Dr. E. A. Y. Schellenger, of Camden, was presented by the secretary and read by title.

Dr. Joseph McFarland, of Philadelphia, read a paper on "Progress in Bacteriology."

A paper on "Progress in Surgery" was read by Dr. Frank D. Gray, of Jersey City.

Dr. H. G. Wetherill, of Denver, Col., read a paper on "The Beneficent Agency of Peritoneal Exudates, Adhesions, Aperistalsis and Meteorism in Peritonitis." This paper was discussed by Drs. E. J. Ill, of Newark; F. V. Cantwell, of Trenton, and Wm. Mayo, of Rochester, Minn.

Dr. Armstrong presented the report of the "Committee on Mosquitoes and Malaria."

There being no other business the society adjourned at 11 A. M.

A MEETING OF THE HOUSE OF DELEGATES WAS IMMEDIATELY CALLED.

Dr. T. R. Chambers presented the report on Dr. Tomlinson's paper.

Dr. Henry W. Elmer—The committee appointed by this Society to take into consideration "the journalizing of the transactions" would respectfully report that they are in favor of publishing a journal, which shall be the official organ of the State Society, and its component societies, and respectfully recommend that a committee of five be appointed by the President with power to carry out these recommendations, subject to the constitution, and to report next year.

Dr. T. R. Chambers—I move that the report be accepted.

Dr. Wilson—I offered that resolution in the committee and I must say that some one has

tacked on the latter part of the resolution where it states "and to report next year." It seems to me that such wording defeats the object of the resolution. I went into the committee meeting yesterday as a gentleman who was unqualifiedly opposed to the establishment of any journal, but after talking over the matter with editors from California, from the District of Columbia and from Kentucky, I became thoroughly convinced that an official organ for this Society would, if we could get a competent man to take charge of the journal, cost but a trifle more than we now pay for our transactions, and would do an immense amount of good. I think the whole thing hinges upon securing the proper man. So far as the expense of it is concerned I am assured that it will be small. I hope Dr. Elmer will withdraw that part of the resolution in regard to "reporting at the next meeting."

The Chairman—Before proceeding further with this motion I wish Dr. Chambers would once more explain the resolution; as it now stands it is not clear.

Dr. Chambers—I do not know what it means yet.

Dr. Elmer here again read the resolution and moved its adoption.

Dr. Hollinghead—Is this to apply to this or to the succeeding year?

The Chairman—I understand that it is to take effect at once.

Dr. Chambers—We have already in the State a journal and I should like to ask if the Society does not think it would be wiser to make it our official organ for one year? Would not that accomplish the thing without the attending risk to us?

Dr. Chavanne—I am sorry that this resolution was not interpreted as first read. I would be delighted to have another bound volume of the transactions on my shelf. I speak from my own point of view regardless of the purposes or desires of others. I am convinced from past observation and experience that journalizing does not always do what has been expected of it. If we should adopt an official organ, is it expected to contain everything that is important to us as individuals and will the men in New Jersey take the paper and pay the same attention to the transactions as though they were bound and presented in concise form? We have tried the bound volumes of the transactions and have been satisfied. If necessary I could give evidence to you that would convince some of you that if there is to be a change, in my opinion, it will not be a valuable one.

Dr. Wilson—In answer to the gentleman who has just spoken I would say that journalizing is the most valuable method of presenting our transactions to the members. The business proceedings could be placed in one issue of the journal. If the gentleman wished to place them on his shelf he then would still have his business transactions at home. Not only would he have the papers that have been read but the papers would be sure to come to light, a thing that will never happen with our present methods. The cost of such a journal in lieu of the bound transactions should not be over \$800.00.

Dr. Newton—There is present a gentleman from Kentucky who edits the State medical journal there, and I am sure he would be glad to tell us whether it would be advisable to embark upon this enterprise. Without considering the expense, I think the doctor could give information upon many points that we are so much in need of. In



Kentucky, I believe, it costs about \$1,000.00 net to publish the journal. Of course, when you get money for advertising, the cost is considerably lower and really not more than it costs now to publish and print the transactions.

Dr. Bullitt—Mr. Chairman and Gentlemen: It gives me great pleasure to say a few words to you regarding our experience in Kentucky. The same feeling prevailed there and the same arguments were made to us one year ago, that I hear advanced now. I think we all appreciate the volumes of the transactions, covered as they are, by their annual collections of dust. In our State Association there was one member of the council who had exactly the same feeling regarding the transactions that have been expressed here by this gentleman. There were little spaces left on his shelf for these forthcoming volumes, which he wished to fill before he died. Again, he had been in the habit of going to the mountains in the western section of the State, and, in trying to urge gentlemen to join the Kentucky State Medical Society, would tell them that these bound books would come to them. If these bound volumes were not sent them, he said, then he did not dare go back into the mountains. That was one year ago, but he has been so much mollified this year that he said he would submit to the change if we would change the color of the paper. That voiced the sentiments of the members of the Association after they had had a trial of this new form of publication. We used to have the same routine kind of meetings—read papers, have a nice time, go home and think we had done our whole duty to one another. Since the new idea of organization came along we have realized that we did not do our duty but only gave our ideas to a few, such as you members of the New Jersey State Medical Society are doing to-day. It is the other fellows, those that stay at home, who are not helped. Here you have men well known, who read papers to other equally well known men. The mission of the work is to get the other fellow to come here. Ours is the salvation army of the profession. You can accomplish what you desire by the establishment of some such an official journal; it carries the gospel into the homes of the men we desire to reach. We have found in Kentucky that so far as the expense is concerned it can be well met by any Association as strong as yours. Our journal used to cost \$3.00, but the cost was reduced to \$2.00. The State Society had a revenue to start with of \$2,800.00. Last year the total expense of producing this journal was \$1,800.00, so, after deducting what was received from advertisers, etc., the net cost was not over \$500.00. This was even less than the cost of the bound transactions. Last year the Secretary and editor was not paid; but this year he is to be paid \$600.00 for his services. The work took more of his time than should be required or than we should have the right to expect, and, therefore, we felt that he should be compensated for the actual loss of time. We have not yet reduced the real cost of editing the journal to \$300.00, but hope soon to do so, and even to \$250.00. I believe the net expense should not and will not be over \$250.00. I believe in every Society having its own journal and being the absolute owner. We all know that when journals are not the property of the doctors the source of revenue often comes from ways of which we do not approve. Not from subscribers or good advertisers, but from advertising, which should not be taken at any price. The State

Medical Journal should be the one to set the standard. Just look at some of the advertising that appears in certain journals. They are certainly very culpable and have very objectionable advertising. One of my purposes will be to help form a State Medical Journal Association which shall have for its purpose the dealing with just this class of questions.

Dr. C. J. Kipp—I should like to ask what would be the loss to the journal if all the advertisements were excluded. I think advertising in this way is an undignified affair.

Dr. Bullitt—If this was done the total expense for publishing the journal would be about \$1,000.00. The postage would cost \$300.00, making a total expense of about \$1,300.00. The membership of our Society is about 1,300, and we publish about 2,000 volumes. With regard to advertising I do not believe that Dr. Kipp is correct. I think that certain advertisements should be put in. If there are good new medicines to be introduced to the people and valuable appliances are to be brought forward, I think the journal is the proper medium for exchange of knowledge between the men producing and the men using the drugs and instruments, not to mention books. The journal should take pains to advertise only the things that are of real value. To the country practitioner and his patient this means a great deal.

Dr. Chambers: I have had the transactions for years and it seems to me that they are very dusty lying up on the shelf. I love them although I do not refer to them very often. They are good for me personally. If my neighbor asks me what have we to offer, I have nothing else to answer except to say that we have the bound transactions and we find them very interesting. If my neighbor has a monthly journal thrust upon him month after month he certainly will glance over it and things may catch his eye, which may make him a member of our society. I should like to have a journal published by our society. Regarding what has been said about loss of dignity by the insertion of advertisements, I would state that I want to be dignified, but not if I find that it interferes with progress. The Archives of Ophthalmology and Otology for which I subscribe have one or two advertisements, but I do not think it detracts from their dignity. The insertion of proper advertisements is not undignified and I think that the majority of the men will agree to this statement. I sincerely trust that we will have this journal. Particularly do I wish this when we have been assured that it will entail no financial loss.

Dr. Benjamin: The only real and important objection that has been suggested is the financial one. There has been no argument whatever against the journal form. If we could make it approach in likeness to the American Medical Journal we would then have a good thing. How many people do you think would prefer to have a large volume come out once a year rather than the journal? The points in favor of a journal are three, viz: (1) It will increase the influence of the profession; this, it will do most decidedly. For instance, in matters of general importance and of public import that may arise in the interim, i. e., between our meetings, we would have a way of reaching the profession; now we only can meet the professional eye by letters. If you have this journal

you then can discuss matters or questions that arise and can study them intelligently. In other words, you will have a means of communication with each other on the live questions of the day. (2) It would enable many writers in the State to find a medium in which to publish their communications. Many men would publish papers of value if we had such a journal. (3) A journal would be an incentive for membership. Regarding the question of finance, a friend of mine has suggested that the expense need not be very great. I trust you will find it feasible to publish this journal. It certainly would influence our membership and be of great aid to us.

Dr. Armstrong: Does this motion contemplate publishing the transactions of the County societies as well as those of the State Society? It seems to me that the motion as put is rather vague.

Dr. Harvey: "Organ" is the term used. The one thing needed in this State is unity. You know we have but this one meeting a year which brings us in touch with each other; following this we have the bound volumes of the transactions. We should be able to keep more in touch with each other. It would help us a great deal and would also be an aid to the State which is so dependent upon us in its establishment of sanatoria. We want a medical newspaper; properly the organ of this society. We also want in this society young men, who have been educated along lines that many of us have missed, for reasons that are evident. These young men may be interested in scientific work, and may even be working in neighboring centers. It is with difficulty that we can interest such men in our society unless we have something to offer them; apparently, at present, we have but little to offer. We should try to interest them more. All we can do is to offer them bound transactions which they may place upon the shelf. We want a journal in which we may publish our papers and get them into the hands of our neighbors. This is the only legitimate method of advertising open to medical men. We have the wish to develop our society to the highest degree and this journalizing of our transactions is what is going on in other states.

Dr. Leidy: I am from a small town and we are dispersed throughout the county and meet but twice a year. I consider the matter under discussion a very important one. I heartily concur with the gentlemen who have spoken in favor of journalizing the transactions. Nevertheless, some of the delegates have impressed me with the fact that they were going to vote against this new measure and asked me to vote with them. I am here representing one County and some of our members have asked me to vote against it. I do not agree with them. But I must vote against journalizing the transactions, although I am in favor of doing so.

Dr. Price: I am in favor of this movement and I think it is possible that we could obtain the aid of the State Sanitary Association and be able to accomplish a great deal of good.

Dr. Harris: I think the most important consideration for us is the editorship and management of this new journal. All benefits which may accrue from this can only come from efficient management and the obtaining of a good

editor. Such a man would cost us a few hundred dollars a year. I am in favor of this change, although I have been a member of this society for thirty-three years and although I still like to receive those bound volumes of transactions. The conditions have changed; membership has changed; times have changed; and, therefore, I am in favor of this change.

Dr. Hedges: I came here opposed to any change. After listening to the arguments that have been raised I must confess to a change of heart. I think we should journalize our transactions. I believe this innovation will be a complete failure unless we have the right editor and I hope that you will place Dr. Newton at the head of the movement.

Dr. Elmer: I came here intending to vote against this project but I have interviewed a number of men and the arguments that I heard yesterday have changed my opinion. I now am strongly in favor of publishing the transactions as proposed.

Dr. Godfrey: I confess that after hearing the arguments advanced I have also experienced a change of heart. The financial question seems to be the one which should be settled. I should like to call attention to some large organizations to which this project might prove beneficial. There is the State Society, the Sanitary Association, the State Board of Health, the Epileptic Home, the Institution of Military Surgeons, etc., besides the twenty-one counties in the State. I think we can easily finance this thing.

Dr. Wilson: I wish to offer an amendment to the resolution, viz: that this matter be referred to the Board of Trustees if such action is deemed wise.

Dr. Chambers: The amendment is not quite right.

Dr. Wilson: This body cannot direct the Board of Trustees.

Dr. Chambers: I want to say right here that I approve of it.

The Chairman: If it is subject to the requirements of the by-laws it must pass. I believe the motion before the House is the proposition to journalize the transactions and that this be referred to a committee of five with power to at once place the proposition in operation subject to the constitution.

Dr. Chandler: The only objection is "with power to carry out." That is contrary to the by-laws. The by-laws give the power to publish the transactions to the committee on publication. The whole matter should be referred to the Board of Trustees. It is unnecessary to take such action as this, as the Board of Trustees have ample power to appoint an editor, and issue a journal, I believe the journalizing of our transactions, and adding the various reports of other societies and the discussions which take place from time to time would be of great advantage to us. But, gentlemen, this is a new undertaking and one which has cost some societies heavily and I do not think it is wise to embark in the enterprise until we feel sure that we have fully considered the matter. We have here at present only twenty-five members out of a total membership of twelve hundred. I think to take any hasty action would be unwise. This could be referred to the Board of Trustees if you would strike out the words "with power to carry out, etc."



Dr. Chavanne: I am now in favor of publishing this journal but not this year, because I do not think we are, as yet, ready for it.

Dr. Chambers: I withdraw my former motion, and I move now that the whole matter be referred to the Board of Trustees with instructions to carry out the ideas of the society as speedily as possible.

Motion seconded.

Dr. Chambers: We have a publishing committee consisting of but three, and I think there should be five. I move you that we have a new committee to be the Committee on Publication and to consist of five members.

Dr. Chandler: A committee of five has already introduced a resolution.

They should confer with the Board of Trustees and report here next year.

Dr. Mitchell: It seems to me to be very undesirable to add to the machinery. We have a Board of Trustees and a Committee on Publication fixed by the by-laws and they are good working bodies. I think it would be advisable to refer the whole matter to the Publication Committee. It must come before the Board of Trustees before the work can begin. Therefore, I suggest that the gentleman be asked to modify his resolution and have the whole matter referred to the Committee on Publication and let it rest there with instructions that they appoint an editor and proceed with the publication of the journal.

Dr. Benjamin: I think the idea a good one.

Dr. Mitchell: As I understand it, the question now is on the method of carrying out the proposition and putting it into operation. The suggestion that I have made is that the motion of Dr. Chambers be so modified that the publication of the transactions in journal form can be accomplished by instructions to the Board of Trustees advising them to appoint an editor and proceed with the publication; the publication should be under the management and supervision of the Committee on Publication.

Dr. Chambers: This is the meaning of my motion.

Dr. Armstrong: Why cannot we, under the by-laws have the Committee on Publication and the Board of Trustees go on and publish the transactions in one, two, three, or five, separate volumes or get them out monthly.

Dr. Chambers: As I understand it, instead of one volume let there be published several volumes.

Question: Have we a quorum?

Dr. Chandler: I count just twenty members.

The Chairman: The motion of Dr. Chambers is modified so that the publication of the transactions hereafter will be conducted by means of a monthly journal and the trustees will be instructed to appoint an editor and to proceed with the publication of this monthly. This shall be under the supervision of the committee as provided for in the by-laws. Are you ready for the motion? Motion carried.

The Chairman: Some action is necessary to indicate that the work should proceed at once.

Dr. Chambers: I make a motion that the work be begun at once. Motion carried.

Dr. Chandler: I move that the report of the committee on journalizing the transactions be received and placed on file. Motion carried.

Adjourned *sine die* at 12.25 P. M.

END OF THE PROCEEDINGS OF THE 138TH ANNUAL MEETING OF THE MEDICAL SOCIETY OF NEW JERSEY.

## CLINICAL DEPARTMENT.

### ADENOIDS AS A SOURCE OF GENERAL INFECTION.

(Read before the Clinical Society of the Elizabeth General Hospital and Dispensary, June, 1903.)

By NORTON L. WILSON, M. D., ELIZABETH, N. J.

Mr President and Gentlemen: I desire to relate the history of the following case, which I saw in consultation recently; and then make some comments, which, I hope, will be of value to you in your general practise. Willie G—, age 8½ years, began to have some fever a week and a half before I saw him. His temperature ranged from 99 to 102 3-5. A few days before the fever was noticed he complained of pain in the left ear. There was no discharge from his ear, but a profuse, thick, yellowish discharge was noticed from his nose. His tongue was furred and his breath was that of a feverish patient. His physician examined him thoroughly and could find no cause for his fever. The blood was examined for typhoid and was found negative. Quinine was administered in the hope that the fever was of malarial origin, but the temperature did not abate. The doctor then asked me to see the case and examine the child's ear, in order to determine whether or not there could possibly be any cause there for the continuance of the fever. When I saw the little patient I found him with a temperature of 100—pulse 80, regular and moderately full. The membrana tympani was slightly injected and his hearing was somewhat diminished on the left side. He had no cough and very little discharge from the nose. His tongue was coated, notwithstanding the fact that calomel had been given.

Anterior and posterior examination of his naso-pharynx revealed a soft, slightly swollen and intensely red adenoid growth. I had seen a few similar cases before, and I was fully convinced that all his constitutional symptoms were due to an infective process going on in the adenoid structure.

Subsequent treatment proved this to be the case.

This boy was not a mouth breather, and, in fact, exhibited none of the symptoms ordinarily found in children suffering from adenoids, except that when he took cold he always had a thick yellowish discharge from his nose accompanied by slight earache and some fever.

I have minutely described this case because I think the pharyngeal tonsil does not attract the attention of the general practitioner unless it is large enough to obstruct nasal respiration, or give rise to some local symptoms. The systemic phenomena, associated with infection through these adenoid structures, is practically the same, whether the adenoid structure is of an obstructive nature, or whether it is non-obstructive.

The lymphoid tissue at the vault of the pharynx is readily affected by vascular changes, and the tendency to enlargement is known to all of you when the patient is suffering from any systemic disease such as measles or scarlatina. I call your attention to this class of

cases, because I am led to believe, from my own observation and from statements made to me by general practitioners, that not infrequently we have to deal with febrile conditions in children, in which there is no apparent cause for the symptoms present, and that the cause of a temperature with the accompanying systemic phenomena could be traced directly to the inflammatory condition of the adenoid growths. The systemic phenomena seem quite out of proportion to the local cause. The gland seems to rapidly absorb any toxic material and the temperature will suddenly rise before there is any visible constitutional effect.

Children with adenoids are more susceptible to cold and the symptoms produced by the cold are aggravated in these cases. The peculiar character of this glandular tissue furnishes a very suitable nidus for the lodgement of infectious material. The writer suggests that you examine the naso-pharynx, as a matter of routine, whenever there is any question as to the cause of the rise in temperature.

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### EXCISION OF THE ENTIRE CLAVICLE FOR NECROSIS.

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By CHARLES N. MILLER, M. D.,  
GERMAN VALLEY, N. J.

(Read before the Morris County Medical Society.)

R. L. Aet, 26, woodman by occupation, presented himself August 20th, 1902, with the following history.

He was seized with stiffness of the right sterno-cleido-mastoid muscle with pain on motion, after sleeping in a draught during the night of August 16th. This was accompanied by loss of appetite, constipation, coated tongue, etc.

He had, when examined, a temperature of 105 Fahr., a rapid pulse and pain and tenderness at the root of the neck on the right side, increased by movement and palpation. No redness or swelling.

August 21st, temperature less, pain etc., about the same. There was a swelling; with a dark red flush over the sterno-cleido mastoid muscle on the affected side.

Symptoms continued about the same until August 23rd, when I opened a small abscess under the muscle, followed by immediate improvement in temperature, pulse and general condition, which lasted for a couple of days. After this he began to look septic again, with an increase in the local symptoms. On August 29th I opened a large abscess at the lower and inner aspect of the sterno-cleido mastoid muscle and inserted a drainage tube.

Improvement began at once, continuing until September 19th, when I found him again with fever, pain, etc.

On September 23rd I opened an abscess at the external third of the clavicle, after which septic symptoms ceased.

Between August 29th and September 23rd, he complained almost constantly of abdominal pain in the left hypochondrium that finally drifted to the back over the left kidney, and at length ceased; a short time after which he passed something, per urethram, that I suspect was a renal

calculus, although it was not saved and I did not see it.

He rapidly improved in general condition after September 23rd, but there was a persistent sinus near the sterno-clavicular joint, leading apparently behind the sternum.

Some time in October I detected dead bone at the bottom of the sinus.

I then waited until the dead bone should become loosened, but, not being able to detect any motion and thinking that from the time that had elapsed I would be able to remove the sequestrum, on January 20th, 1903, at the Morristown Memorial Hospital, Morristown, N. J., with the assistance of Drs. Flagge and Glazebrook, I cut down on the dead bone.

I divided the clavicle near the sternal end with a chisel and removed that portion.

I then examined the remaining portion of the bone and, finding it dead to within about one inch of the acromial end, and, as I had consumed considerable time in removing the inner extremity, and as there was so small a portion of living bone, and no line of demarcation had formed, I removed the entire bone. The periosteum was saved as far as possible under the conditions present. There were a few sutures inserted and tied, leaving room for drainage, and the cavity left by the removal of the bone was packed with gauze. The patient was removed from the table in good condition.

There was considerable oozing of blood, and that evening a hemorrhage occurred sharp enough to necessitate removal and re-application of the outer dressings.

The patient made an uneventful recovery, leaving the hospital on February 4th, 1903.

The patient acquired considerable use of the arm at once, which gradually increased, until he was able to perform hard manual labor, as before his illness.

In June, on presenting the patient to the Morris District Medical Society, we discovered that the clavicle had been reproduced, and that there was complete and full use of the arm and shoulder.

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### TREAT FOR SMALL PATIENTS.

The children of the New Jersey Orthopaedic Hospital enjoyed a birthday dinner and a ride, through the generosity of friends of the institution, yesterday afternoon and last night. Richard Coyne, of East Orange, sent a number of carriages to the hospital, at 148 Scotland street, Orange, in the afternoon, and the little invalids were taken out through the country. In the evening a special dinner was served to them. The treat was given to commemorate the first anniversary of the hospital in its new quarters. The dispensary is now caring for between 150 and 160 patients, while there are seven children in the wards.

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### JAIL FOR SELLERS OF IMPURE MILK.

Five Philadelphia milkmen convicted for selling adulterated or watered milk, have been fined by Judge Barrett from \$50 to \$75, and sentenced to jail for periods varying from ten to twenty-five days. The grand jury has found indictments against 27 men for selling adulterated Hamburg steak. Food Commissioner Warren is highly pleased with the way the courts are dealing with the men apprehended by his department.



## CORRESPONDENCE.

50 N. Peal St., BRIDGETON, N. J.,  
October 3, 1904.

Dr. Richard C. Newton,  
Montclair, N. J.

DEAR DOCTOR:—I wish to express to you personally an interest in our new Journal. I hope the enterprise will meet with every success. I have read the two numbers with much satisfaction. It is the first thing I pick up in the way of medical journals.

Yours very truly,  
E. S. FOGG.

BRIDGETON, N. J., Sept. 20th, 1904.

R. C. Newton, M. D.,  
Montclair, N. J.

MY DEAR DOCTOR:—Your letter of the 11th inst. directed to the President of this Society has been referred to me for answer.

It is very gratifying to our Society to know that its working is known outside the domain of the county. Yes, we are a moderately successful Society, and if there is any particular system that has made us so we shall be only too glad to divulge it.

In answer to your question I shall take up the arrangement of our meetings. We have four stated meetings during the year, occurring the second Tuesdays of April (annual), July, October and January. The annual and semi-annual meetings begin at 11.00 A. M., and are made up of two sessions (a dinner intervening). We usually get through about 5.00 P. M. The other two meetings begin at 2.00 P. M., and are usually short (no dinner).

We change the place of meeting from one place to another.

Regarding our literary program, the president appoints at the annual meeting members who shall report on the following subjects during the year: Progress in Surgery, Obstetrics, Practice, Pathology, Diseases of Children and Therapeutics.

At each meeting two members are usually appointed essayists for the next meeting. The appointee choosing his own subject and reporting it to the Secretary ten days before the meeting.

The President and Secretary are a committee to secure foreign talent, and we usually choose from our corresponding members, among whom are some of the ablest men in our country. They are always kind enough to respond (see transactions). Now the programme is made up. Two members are chosen to report on progress. The essayist from our Society reads his paper. The visiting essayist reads. The members who have previously been appointed to open the discussions speak. Then follows the general discussion.

The final roll call for cases gives us enough material to fully occupy our time.

I should not forget that every year we appoint three delegates who visit Gloucester county, and three who visit Salem county, and report their meetings. Likewise we entertain the same number of delegates from those Societies and they take part in our meetings. I believe this to be a good feature.

Only a short time since we celebrated our 80th anniversary, and a grand time we had. It cost us \$10.00 each, but I think everybody thought the money well spent.

These entertainments add greatly to the interest in Society work, and should be encouraged. You can get plenty of outside assistance, papers after dinner talks, etc. *Doctors like to eat.*

Another important feature is to get members in the notion of attending the State Society meetings as delegates. We always elect our delegates at our annual meeting, and there is usually a lively time. Until last year we have appropriated money for their expenses. We have now adopted another plan and the delegates pay their own expenses. Time will tell which plan is best. I say get them there one way or another. It creates interest.

Now, I don't know that I can give you any more information regarding our work. But at any time consider me at your service.

With best wishes for you and the *Journal*, I remain,

Yours very truly,  
ELLSMORE STITES,  
Secretary Cumberland County Medical Society.

## PHYSICAL EXCELLENCE OF YOUNG JAPAN.

One of the first things to impress itself upon a foreigner in Japan is the peculiarity and the excellence of the physical training given to Japanese youth. They are a race of miniature Spartans, and they have become so through such patient, painstaking toil and endurance as would appall the average American youth, inured to softness. The Japanese schools are nearly all modelled after American institutions, or, as the people like to believe, after a composite of all that is best in the schools of America, England, France and Germany. The students are not, of course, trained in modern athletics, and could hold their own at nothing of this kind with our magnificent college boys, but in simple physical training, making the very best of what nature has provided, the Japanese excel any people I have ever seen.

My very first day in the little island empire was full of exclamations about this constantly evident national characteristic, which belongs to the lower classes and the great middle class. The highest class in Japan is remarkable, alas! for physical weakness more than for physical perfection, a condition attributable to centuries of an extraordinary sedentary mode of life. The ship on which I crossed the Pacific Ocean had not cast her anchor in Yokohama Harbor before she was surrounded by a great crowd—"swarm" better expresses it—of sampans, little heavy wooden boats propelled by a single oar at the stern, and almost without exception handled by boys apparently about twelve to fourteen years old, and whose half naked bodies, straining against the heavy oars, looked as if they had been modelled in bronze by some master artist. Their training is the kind which necessity forces upon the laborer, of course, but it is none the less splendid, and will have no less splendid effect upon the future Japan.—*Leslie's Weekly.*

## GEORGIA TUBERCULOSIS COMMISSION.

Governor J. M. Terrell, of Georgia, has appointed a medical commission to "investigate the extent of tuberculosis in Georgia and means of stamping out the disease." This is the first commission of the sort instituted in the South, and was created by an act of the general assembly approved in August.

## LEADING ARTICLE.

## THE SYMPTOMATOLOGY OF APPENDICITIS.

BY THOMAS W. HARVEY, M. D.,  
ORANGE, N. J.

\* Read before the Orange Mountain Medical Society.

Few general practitioners have the opportunity of adding to the store of human knowledge in the departments of etiology and pathology. Even in therapeutics our field is very limited, because of the comparatively few cases of any given disease, that offer themselves for the purpose of experiment. In symptomatology, however, in the study of the infinite variety of disease, the opportunity for observing the new and of recording the hitherto unobserved is frequently at hand. To those of us, the length of whose medical life corresponds to that of the modern treatment of inflammation in the ilio-cæcal quadrant of the abdomen, the study and development of the symptom-complex now called appendicitis has been particularly interesting.

As a student I was drilled in the diagnosis of typhlitis and perityphlitis, those almost forgotten terms which the English surgeons still use. The term typhlitis covered pretty well most of those cases of appendicitis where there is a moderate amount of localized peritonitis, in which the prominent symptoms are pain, tenderness and muscular rigidity in the region of the caecum and ascending colon. If these symptoms subsided in a few days, well and good; if not, we either had a termination in general peritonitis, (one phase of the blanket diagnosis of "inflammation of the bowels"); or an abscess formed and the term perityphlitis applied. Suppuration was encouraged and evacuation took place in various directions. Those of us who antedate appendectomy are often asked what the fathers called these cases and what became of them. "Idiopathic peritonitis" was a disease described in the older books, and I have no doubt that most of the cases in the male were due to disease of the appendix.

I remember that my first laparotomy was made on a male patient, the diagnosis having been intestinal obstruction. At the operation the abdomen was found full of pus, the patient so nearly died on the table, that we did not find the original focus of inflammation. But none of us, and there were two older surgeons present, thought of the appendix at all. The next case of intestinal obstruction that I met with, had an adhesion band from the tip of the appendix binding down the small bowel to the caecum. In this case the influence of disease of the appendix was not appreciated. I have no doubt that many fatal cases of appendicitis were diagnosed as intestinal obstruction. Is it not true that now we see fewer cases, where we are satisfied with that diagnosis than formerly?

Professor Sands was very much interested in these cases when I was a student, and commenced treating them by early incision and evacuation just about that time. In fact, that was the treatment which I was taught to use. I think that we were taught just as earnestly as now to look for trouble in the right flank whenever a person had an abdominal pain accompanied with fever. The history of my first case illustrates how those cases were managed in those days. A young man, a broker, came to my office complaining of pain in his abdomen. His right side was tender and he was evidently very sick. He was put to bed with a poultice and given opium and remained in bed three or four days. The diagnosis was typhlitis. He returned to business and about four days later he came into the office bent over to one side, and said he had had an awful pain in his abdomen when he was in New York, had gone up to Professor Sands, who had sent him home to go to bed and send for a physician. He had a well developed tumor in the ilio-caecal region. The diagnosis of perityphlitis was made and he was sent to bed. It happened to be my wedding day and I turned the case over to another physician with much regret, as it would have been my first really important bit of surgery. I returned in three weeks and found



my patient still in bed. I opened an abscess in his right ilio-caecal region holding a quart of pus and he recovered.

Professor Sands just about this time advocated cutting through the skin, pushing an exploring needle through the muscles until pus should flow, following up the needle with a pair of dressing forceps, dilating the opening, washing out the abscess cavity and draining it. The peritoneum was to be sedulously avoided. The surgical advice previous to 1875, had been to wait until the abscess should point. Sand's advice was to cut carefully for pus whenever its presence was indicated by a tumor. Of late surgeons have taken the position that the diagnosis of appendicitis having been made, an operation is immediately indicated.

For a long time the tumor symptom was considered necessary for a diagnosis, and often even to-day its absence delays proper and timely surgical interference. The presence of a tumor is not necessary for a diagnosis and should be left out of our symptom-complex. It is one of the accidents of the disease and our treatment has fallen just so much below the ideal whenever a tumor has developed.

There is one thing we can be pretty certain of, I think, that to-day it is a very unusual form of appendical inflammation that escapes detection. Just as one's hand almost automatically seeks the hernial opening when we are consulted in a case of constipation and vomiting, so a complaint of colic will immediately cause the hand to explore the ilio-caecal region. How much more quickly the doctor goes to see his patient who complains of a belly-ache to-day than formally. Then he could send around his little opiate and run in the next day. Now he must satisfy himself as to the locality of the tender spot before he administers the stupifying nepenthe. Happy the patient whose physician believes in making the diagnosis before alleviating the pain. It has therefore come about that without regard to the method of treatment preferred, one is pretty certain of having a diagnosis made of appendicitis, when acute.

The classical symptom-complex consists of a sudden attack of colic, of vomiting, of abdominal tenderness, of tension of the abdominal muscles and a febrile movement. There seems to be no end of the combinations that can be made of these symptoms. I should say, from my experience, that never more than one symptom is missing, and that localized tenderness is necessary to make a diagnosis of appendicitis. I am not willing to say that inflammation of the appendix may not occur without tenderness being present, but I am at a loss to know how the diagnosis can be made without it. The colic varies in intensity and locality, usually beginning at the umbilicus and taking about twenty-four hours to localize in the appendix itself. The reference of the pain to the umbilicus is said to have been noticed whenever painful pressure has been made on the appendix and must be considered as one of those curious reflexes which are not unusual in the animal anatomy. (In a case under observation at present. The appendix can be easily palpated, it is enlarged and pressure upon it causes more pain in the navel than in the appendix itself.) My experience with the colic is that it will often be present for hours before there is any localized and occasionally before there is any general tenderness. Usually, the tenderness is localized early along the omphalo-spinal line. There are certain cases that will have general tenderness, no more in one place than in another, for the first few hours; the tenderness concentrating itself gradually in the right side and then in one point, disappearing as the attack passes over. Often, however, the appendix itself will be tender to pressure long after the acute attack is over. These are dangerous cases. The tenderness varies in severity depending on the condition of the appendix. I have found the appendix erect, as it were, its tip toward the skin, turgid and inflamed. These cases were often in children and were very sensitive; the lightest touch upon the skin causing the patient to scream. On the other hand, when the appendix is behind the colon, the tenderness is less marked and the localization is

slower. When situated in the pelvis in the woman, the tenderness is usually least. One case was very sensitive where an inflamed appendix was attached to an ovary. In another case the tumor in Douglas's pouch, (where there was an abscess, connected with an appendicitis and salpingitis) was so exquisitely sensitive that a rectal examination caused a convulsion.

Muscular tension is almost always present. In seventy cases that came to operation, I have seen it absent but twice, one a young woman, where the appendix was in the pelvis, and another a woman who had an appendical abscess deep in the cul-de-sac of Douglas, with which a tube had become involved. The muscular tension is usually confined to the right rectus and to its lower third. Muscular tension is an indication of localized peritonitis, not necessarily of the parietal peritoneum, but of the peritoneum in the neighborhood of the inflamed appendix, therefore, it is an excellent guide to the location of that organ. A diagnostic point of use in the differentiation of appendical from tubal inflammation is the fact that a unilateral tension is found with appendicitis, while with pelvic-peritonitis we have both recti tense.

The vomiting of appendicitis is not a constant factor. It is of useful diagnostic value when present. The presence of general peritonitis is pretty surely indicated by a green vomitus, while in a less severe form of the disease the vomitus is of the ordinary contents of the stomach.

The febrile movement in appendicitis is very irregular and uncertain. Very grave septic peritonitis may be present and yet be accompanied by very little rise in temperature. The pulse, however, is a very good guide and an increasing pulse rate should always be considered as urging us to active interference. We have all seen cases, however, where all the symptoms, even the pulse, will show improvement after rupture has taken place; the immediate shock to the general system having been recovered from. Many a life-saving operation has been fatally postponed because of this illusive period of

improvement. In fact, my experience would lead me to infer that perforation may be diagnosed if we have a sudden drop in temperature following a few days of acute symptoms. This matter of temperature has some other interesting phases. For instance, sublingual temperatures are misleading, and there will be two or three degrees difference between mouth and rectal temperatures. The importance of qualifying our opinion of the value of a temperature observation by a study of the conditions surrounding the observation, is shown in appendicitis as in many other forms of disease. A recent case of measles illustrates the same point, when the exanthem was coming well out in the mouth, the sublingual temperature was 104; the rectal 102.5. Temperatures should always be taken in the rectum in appendicitis.

These are the symptoms that I consider essential to the diagnosis of acute appendicitis. You may have a chronic inflammation of the appendix without all these symptoms, as seen in a recent case where an appendix was covered up in a thick layer of exudate, an inch in thickness and bound to the ilio-fascia, just above Poupart's ligament. This patient had no vomiting, very little pain or muscular tension, but did have great tenderness and a low fever (temperature below 101) and pulse below 90. There had been a history of repeated attacks, frequent indigestion and colic. The appendix was gangrenous and filled with a foul smelling fluid. Tenderness is the one symptom certain to be found if the appendix is inflamed, and I urge operation where I find that this tenderness appears continuously between attacks even if these attacks are never severe. A chronically inflamed appendix is a most active cause of ill health, by causing anaemia, dyspepsia, colitis, neuralgia, neurasthenia and all the accompaniments of auto-intoxication.

Other symptoms that often accompany appendicitis are worthy of some consideration. The tumor, while frequently absent, when present may indicate several different conditions. It is usually an abscess, it may be simply agglutinated coils of bowels, or it



may be the appendix wrapped in omentum or exudate. In the latter case I have always found that the tenderness is most acute. In fact it often happens that the formation of pus is associated with a lessening of the tenderness. A tumor is also found in tuberculosis and cancer of the appendix. The tumor, when present, is a guide to the location of the appendix. The muscular tension also is found over the appendix. The pain, however, is not at all a guide to the location of the appendix, while tenderness, which is always present over the inflamed part, may also be present over the point of attachment of the appendix to the caecum. The latter symptom has been explained by the presence of a sympathetic nerve ganglion usually found at that point.

Local peritonitis is the usual accompaniment of appendicitis. General peritonitis is not so common, fortunately. This general peritonitis is septic in its character; and the more septic it is the more deceptive it is. It is not unusual to open an abdomen and find a general peritonitis with purulent looking exudate and with a very moderate amount of appendical lesion. A recent case at the hospital, sent in with very acute symptoms and general tenderness, was found with a very slight inflammation in the appendix, but a general peritonitis, which soon proved fatal. The man had cirrhosis of the liver and kidneys and was a bad case for any acute disease.

Very acute inflammation of the peritoneum with adhesions is not nearly so serious as the subacute form without adhesions and much milky looking fluid.

The differential diagnosis of appendicitis is ordinarily not difficult. The movability of the organ is the cause of most of the doubts that arise. We must remember that the right kidney is often movable and that renal colic will give pain and tenderness in the right flank. An appendical abscess is found sometimes pointing well in the right lumbar region. I have opened one which appeared during the last month of pregnancy and pointed outside of the iliac region well posterior to the median plane of the

body. The gall bladder often is as low as the umbilicus and then cholecystitis will cause confusion. Twice I have cut down on such a tumor, expecting to find an inflamed appendix, and have found a distended gall bladder with gall stones. In these cases the muscular tension usually extends upward, involving the upper half of the rectus muscle instead of the lower half as in appendicitis. The appendix on the other hand will often be found well up under the liver and will be mistaken for a cholecystitis. In gall bladder cases the pain radiates to the shoulder, in kidney cases towards the testicles, while appendical pain is localized.

The appendix in the pelvis in the male will cause severe pain in the rectum and also in passing urine. But there is little that can happen to the male pelvis unless it is brought on by appendicitis. In the female however, the appendix can become tangled up with all sorts of diseased conditions, and right-sided inflammation of the appendages will always require careful pelvic examination to eliminate appendical inflammation.

Typhoid fever must be differentiated, as the two diseases have important symptoms in common, viz., pain and tenderness in the right ilio-caecal region. The difference in the character of the fever, the more sluggish onset of typhoid, the more sharply localized pain in appendicitis, the absence or presence of leucocytosis, are the signs that guide us in solving the problem. The two conditions come together, as for instance, an old woman had an attack of pain and tenderness on the right side with a fever and leucocytosis. Gradually the leucocytosis diminished, in a week the Widal reaction was present. In two or three weeks a tumor appeared on the right side, which pointed and was opened, discharging pus during the sixth or seventh week. Typhoid ulcerations have been described as occurring in the appendix. We must also remember that we may have tubercular and carcinomatous disease of the appendix.

However, there are cases of peritonitis localized in the right ilio-caecal region,

which, when operated, will show a perfectly normal appendix. I have seen several cases that simulated appendicitis very closely. In two, operation disclosed a perfectly normal appendix, and in another the appendix had been diseased, but at the time of operation was entirely quiescent. The first was a man sixty years old, a tramp, who came to the hospital with a severe abdominal pain. This was accompanied by a mild febrile movement. Soon localized tenderness and muscular tension of the right rectus appeared, and a well defined tumor could be made out just above McBurney's point. The abdomen was opened and an extensive, but localized, adhesive peritonitis was present. The tumor was evidently a mass of small intestines bound together by a large mass of exudate. The parietal peritoneum was adherent to it. The caput coli and the appendix were perfectly healthy and free from adhesions. The appendix was removed because of the dangerous neighborhood; the mass of exudate explored and a small amount of pus evacuated. Drainage was introduced. In a few days a faecal fistula developed and the patient commenced to pass cherry stones through the fistula. He passed about twenty stones. He claimed that he had not eaten cherries for over two weeks. This patient sustained four unsuccessful operations for the closure of the faecal fistula, which communicated with the colon. Eventually a sarcomatous growth developed in the omentum, the caecum and the mesenteric glands. The patient lived about a year.

Another case was a young woman, who fifteen months before had had an attack of appendicitis. This attack had been so serious that preparations had been made for operation. During the interval she had had a good deal of pain in her right side, especially after exercise. At last she had an attack of pain associated with extreme tenderness on the right side. Vomiting opened the attack and lasted for two days. Tension of the right rectus was present, particularly just above the omphalo-spinal line. The low febrile action that accompanied the onset of the attack gradually disappeared, and the

other general symptoms improved, but the tenderness and tension of the rectus muscle continued. The abdomen was opened along the outer border of the rectus. The point of greatest tenderness was found to correspond to an area of peritonitis involving the parietal peritoneum and the peritoneum of the colon, which was immediately in contact with this part of the wall. The appendix was found deep in the flank behind the colon, adherent for its entire length and atrophied for about one-half its length. The appendix was removed and the patient made an uneventful recovery. She has had some pain and tenderness in the same locality since but not at all severe.

Another case presented a typical picture of acute appendicitis, viz: colic, exquisite tenderness at McBurney's point, tension of the right rectus muscle, rectal temperature varying from 99.2 to 103, vomiting and general prostration. Laparotomy showed an entirely normal appendix, but there was a twist and a slough of a portion of the omentum just beneath the point of greatest tenderness. The operator, Doctor Ill, said that he had met with one other similar case.

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#### CLARENCE M. DALLY, MARTYR.

Another name has been added to the long role of those who have sacrificed their lives in the interest of science, and it loses nothing in luster from the fact that its bearer was not widely known. Mr. Dally was simply an assistant to Thomas Edison in a long series of experiments in connection with the Roentgen rays. In the regular course of his duty it became necessary for him to handle many acids and submit his person again and again to the influence of the mysterious rays. As a result he became afflicted with a lingering, but deadly, malady. All that science could do to save him was done. He submitted to no less than seven operations, including skin-grafting and the amputation, first, of a finger, and then of both arms. He suffered "many things from many physicians" and after years of torture has died, while yet in his prime. Very fortunately, however, unlike others who have fallen in a similar cause, he lived long enough to be assured that his sacrifice was not in vain.—*Newark Evening News*.

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Gyer—"My brother has been greatly benefited by patent medicines." Meyer—"So? What kind did he take?" Gyer—"Oh, he didn't take any. He's a druggist."—*Chicago Daily News*.



### GOOD NEWS FOR CONSUMPTIVES.

The advertisement of the board of managers of the New Jersey Sanitarium for Tuberculous Diseases, calling for bids for the construction of the building of the proposed institution at Glen Gardner, and for fitting it for occupancy, was first published yesterday in the *News*, and contractors are given until October 28 for filing their bids with the board. The next step will be the awarding of the contract, and it is to be hoped that starting the work will not be further delayed.

The board, in its advertisement, makes the plain provision that "the entire building must be completely finished and must be delivered ready for occupancy on or before the first day of October, 1905." In order to do this, it will be necessary to push the construction of the building, with a considerable force, and the board has wisely provided that in deciding as to the award of the contract, it will take into consideration the proved ability of the bidders to complete the work inside of the time limit. The managers appear to be doing all in their power to make amends for the delays that have already occurred in the establishment of this new State charity. If they succeed in their endeavor to so bind the contractor that he cannot break his bond, then tuberculous patients can be received and be under treatment at the expense of the State in less than one year.—*Newark Evening News*.

### TO DIVERT THE YOUNG FROM THE MEDICAL PROFESSION.

A circular has been sent by the organized medical chambers of Germany to the high schools, warning the graduates from entering on the study of medicine. A number of these circulars were thus placed in the hands of the principals of 482 academic and 131 technical high schools, with the request that they would distribute them among their pupils. The overcrowded condition of the profession is set forth and the pecuniary stress of the majority of the members, due to overcrowding, to contract practice and to the lack of legislation against the irregular practice of medicine. The circular further cites statistics to show that 31 per cent. of all the physicians in the Brandenburg-Berlin district have an income of less than \$750. In Berlin alone more than \$5,000 had to be distributed to needy physicians during 1902, and in Bavaria, 23 physicians in 1902, and 20 in 1903 had to be assisted. In 1901, 138 physicians, 1,387 physicians' widows and 399 orphans were partially supported, and many others who needed assistance refrained from applying for relief. The Berlin Medical Chamber often has occasion to help needy physicians or their widows to obtain positions in libraries or the like. On the other hand are to be considered the scant consideration accorded to the physician in these days and the hardships of a doctor's life. "In addition to all this," the circular concludes, "long years must pass after entering the university before the candidate for the medical profession can even begin to support himself by his practice."—*Journal American Medical Association*.

### PROTOZOON-LIKE BODIES FOUND IN FOUR CASES.

F. B. MALLORY, M. D.

In four cases of scarlet fever certain bodies were found which in their morphology strongly suggest that they may be various stages in the developmental cycle of a protozoon. They occur in and between the epithelial cells of the epidermis and free in the superficial lymph vessels and spaces of the corium. The great majority of the bodies vary from two to seven microns in diameter, and stain delicately but sharply with methylene blue. They form a series of bodies, including the formation of definite rosettes with numerous segments, which are closely analogous to the series seen in the asexual development (schizogony) of the malarial parasites, but in addition there are certain coarsely reticulated forms which may represent stages in sporogony or be due to degeneration of the other forms.

While I personally believe that these bodies are protozoa and have an etiological relation to scarlet fever, I am far from claiming that such a relation has been proved.

Should further investigation prove that these bodies are various stages in the growth of the protozoon which has a causal relation to scarlet fever, the name of cyclaster scarletinalis is proposed for it in consequence of the frequent wheel and star shapes of the rosettes, its most distinguishing characteristic.—*Jour. of Med. Research*.

### X-RAYS AND CANCER.

The best that can be said as to the effects of X-Ray upon cancer growth, is that a very large number of cases have been relieved of pain and that in a certain number the growth has undergone a definite retrogression under the influence of this treatment.

Of all the new growths, rodent ulcers are by far the most satisfactory to treat.

In the reports which have been so far submitted, the more recent ulcers have quickly healed, leaving a healthy scar which has not returned so far as has been made public.

In cases of rodent ulcers of long standing, there being a considerable loss of tissue, the tendency to heal has been remarkable. In such cases, however, the ulcers have re-appeared and seem to be more difficult to deal with than the original ulcer.

The main effect of this treatment may be said to be the relief of pain, healing of the ulcer, and a shrinking or disappearance of the growth.

The most experienced of operators state that the utmost that can be said is that the disease is "arrested"; the word cure being hardly applicable.—*Red Cross Notes*.

Charles C. Spear, a milkman, of Caldwell, and Augustine Sandine, of William street, Montclair, were charged in the Police Court of Montclair by Health Inspector Parker, with violating the health ordinance of the town, in failing to notify the board where they were obtaining their milk supply. The former was released on payment of costs of court, and Sandine was fined \$15 on the above complaint, and \$10 for selling alleged impure milk.

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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NOVEMBER, 1904.

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### THE COUNTY SOCIETIES.

In the leading editorial of the *Journal of the American Medical Association*, of May 7th, 1904, we note that much is said of the growing importance and power of the county medical societies.

This matter is so vital and so fundamental that it is necessary for any one who wishes to understand the power and scope of the American Medical Association to appreciate it fully.

The National Association, under the judicious management of its present leaders, and we may, without doing injustice to others, especially mention Dr. McCormack, of Kentucky, has at last so far perfected its organization that its present state of efficiency excites the wonder and admiration of all those who recollect the inchoate and ill-directed body of a decade ago.

The business of the Association before its reorganization, was done in the old town meeting fashion, by general debate in the regular sessions. Local and sectional jealousies, personal and selfish schemes and even politics and religion were dragged into the debates. Motions and counter-motions were made and reconsidered and often that decorum, which should mark the deliberations of the representative medical society of the great American Republic, was lost sight of and confusion became worse confounded.

The association had become so large that it was unwieldy and something had to be done or it would have fallen to pieces from its own weight.

Now, behold its smooth and effi-

cient working. Consider the high grade of the scientific work turned off by the various sections and published for all the world to read in its admirable weekly journal.

Recollect that it is an immense and growing power, making itself felt in every state and every county of the Union. It has many great tasks before it and it is girding itself for its labors like a giant putting on his armor. The world of ignorance, of charlatanism and of commercial greed is to be conquered, and the warfare grows ever more fierce.

Who are the warriors who shall maintain the combat and bear forward the standard of scientific medicine?

*They are the members of the county societies.* No one can join the great association and do his part to further its interests, unless he shall enter through the portal of his county organization.

This puts a great responsibility upon each of us. We must see to it that none but good men enter our county societies; but we must also see to it that every reputable physician, who is duly qualified to practice in our midst, is urged to join our ranks. It would seem that self-interest alone will soon lead many to seek membership in our county societies; because the time is at hand when the progressive and wide awake doctor will miss so many opportunities for self-improvement on the one hand, and for advancement in his profession on the other, if he does not become a member of the great state and national organizations, that he cannot afford to remain an outsider.

The American Medical Association is in the truest sense a pure democracy. Each state society is represented in the House of Delegates exactly according to its numbers; and no worthy project can fail of a respectful hearing before the legislative body of the association, and no act of injustice to any state or section will be permitted; provided that the state societies are represented by worthy and competent men. The key to the situation is in the county society. It is here that every member can be heard, and if his words are words of wisdom, the matter



will be carried to the state society, and the representatives from this body to the House of Delegates of the National Association will be instructed to bring the matter before that assembly, where final and binding action can be taken.

Let us perfect and strengthen our county organizations and let us never forget that above all men in the world the physician owes a debt of responsibility to himself to his colleagues and to humanity, which he may shirk if he chooses, but which he can discharge in no other way so efficiently as by doing his utmost to further the interests of perfect medical organization. We must send good men to the House of Delegates and we must hold them strictly accountable for the manner in which they shall discharge their trust and carry out the instructions of their constituents.

Such men are at present serving us as delegates to the American Medical Association. We must do our part by giving our hearty support to our representatives, and by increasing and strengthening our county societies, so that in the first place, we shall have our full representation, and so that in the second, as many physicians as possible may reap the benefit of belonging to a live and progressive medical society.

#### PATENT MEDICINE ADVERTISING.

We observe that *The Journal of the American Medical Association*, is beginning to print the formulæ of proprietary remedies along with the advertisement. While this might strike some as a case of an eleventh hour repentance, it is to us a gratifying sign of progress in the right direction.

We do not hesitate to assume that hereafter no contract can be made with *The Journal of the American Medical Association* to advertise a proprietary remedy in which it shall not be stipulated that the formula shall be a portion of the advertisement.

As a corollary to this position, it will follow that no reputable medical journal will in future venture to make a contract to advertise a proprietary remedy unless the formula shall be a part of the advertisement.

This seems like the dawn of a better day, so far as the patent medicine abuse is concerned. For if the manufacturers and vendors of these articles are willing to disclose the formula for the sake of getting the advertisement into one class of journals, there will be no good excuse which they can allege for not printing the formula in any advertisement of their wares, or upon the label of the bottle, as is required by law in Germany, and we hope soon will be in this country.

While it does not seem likely that the populace will ever cease to regale themselves with patent medicines, at least so long as the latter shall contain a high percentage of alcohol, the publication of the formula will inform the consumer what he is dosing himself with. And to the more intelligent, it will soon be apparent that it would be more honest, more economical and less dangerous to health to buy good whiskey at a dealer's and drink it, properly diluted with pure water, than to buy inferior liquor more or less disguised with drugs and aromatics at a drug store and call the tippie medicine.

Of course, the element of mystery will be removed, and for that reason alone the sales of nostrums will probably fall off. That perverse streak in human nature upon which charlatans have ever preyed, making it seem necessary to mix humbug more or less freely with all medication.

There is another side of this question that must not be lost sight of—A formula on a label does not guarantee the purity nor the exact quantity of the alleged ingredients. The temptation to adulterate a proprietary remedy, we have ever believed, to be too strong for human nature to resist, and the mere publication of the original formula will be no guarantee against adulteration. Therefore, regular government analysis of all such articles should be made at stated times, and the certificate published with the formula. If the public could ever be educated up to the point of demanding such a certified formula upon every package of proprietary medicine, the victory would be won.

### DR. KOENIG RETIRES.

Dr. Adolph Koenig, founder of the *Pennsylvania Medical Journal* and its editor and proprietor for seven years has determined to relinquish his editorship and give over the conduct of the paper into other hands.

He began the publication of the transactions of the Medical Society of the State of Pennsylvania in his journal in 1897, and thereby became the pioneer in this field of medical journalism.

In the comparatively short space of seven years over a quarter of the State medical societies in the country have followed the lead of Dr. Koenig, and the Pennsylvania Medical Society, and established their own journals.

The doctor leaves behind him an unblemished reputation as an honest and fearless editor. Although it was directly to his personal profit to enlarge the advertising business of his journal, no inducement could influence him to accept an advertisement which seemed to him in any way improper or misleading.

The Association of the Editors of the Journals of the State Medical Societies has lost a valuable member. It is to be hoped that his successor will be as high-minded and efficient as Dr. Koenig has proved himself to be.

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### CUMBERLAND COUNTY MEDICAL SOCIETY.

It gives us great pleasure to print in another column, Dr. Stites' interesting letter in regard to the organization and working of the Cumberland County Society. We hope that other county secretaries will follow Dr. Stites's example and write us fully in regard to their societies.

It is generally acknowledged that some at least of the county organizations are lax in discipline and lukewarm in scientific work.

Such bodies need a great deal of waking up. As an illustration of the torpor, which obtains throughout the State, we might say that we wrote several weeks ago, with our own hand a letter to the reporter of each

county society and craved his assistance in getting out the *JOURNAL*. So that it shall properly, and, as far as may be completely, represent the different county societies and contain not only scientific, but personal matter from them all.

To these twenty-one letters we have received so far two responses. Now, an editor by going without sleep and recreation can do something toward building up and improving twenty-one separate county organizations; but he can scarcely do the work of twenty-one reporters.

We hope that this delay in answering our letters is only due to the fact that the gentlemen addressed are waiting to collect a good bunch of news before they write.

We have no doubt that there are a number of secretaries throughout the State as efficient and withal as obliging as Dr. Stites. And we earnestly implore these gentlemen either to write us themselves or to stir up their reporters to write us just such an account of the work of their societies as Dr. Stites has written us.

In the report of the committee appointed at the last meeting of the State society, recommending the establishment of a journal, Dr. Elmer uses these words: "They (the committee) are in favor of publishing a journal which shall be the official organ of the State society and its *component societies*." (Italics ours.)

The publication committee and the editor will take care that the business and scientific proceedings of the State society shall be properly reported. And we fully expect the officers of each county society to do the much easier part of properly reporting their society work.

Gentlemen, brethren, colleagues, do not let this appeal pass unheeded.

Remember that your editor still expects answers to his letters from nineteen of the county reporters.

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**Prof. John H. Musser**, president of the American Medical Association, will address the Essex County Medical Society on November 22. The subject of the address and the place of meeting will be announced later.



### A HARD HITTER.

Our brother Jones, he of the *California State Journal of Medicine*, doth wield a doughty pen. He calleth a spade by its right name and feareth not the consequences of speaking the unvarnished truth.

What medicine and medical journalism to-day need more than anything else is just such men as Philip Mills Jones. So many of us would like to do right and speak out in meeting if we only dared and if there were not so many reasons why it is not expedient to do so.

He alludes to some of us eastern fellows as narrow minded and hide bound. Strange as it may seem, the same thoughts have sometimes occurred to us, but we have stifled them in our bosom. However, we believe in the crusade he is conducting against the thralldom in which the patent medicine advertisers have wrapped the respectable, but easily worked medical editors and publishers of the East.

If the trustees of the American Medical Association and the editor of its *Journal* have read some of Dr. Jones's remarks about themselves, we are disposed to believe that these good men have felt rather foolish.

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### STATE BOARD OF MEDICAL EXAMINERS OF NEW JERSEY.

The regular examination of the State Board of Medical Examiners was held in the Capitol Building; Trenton, Tuesday and Wednesday, October 18-19. Forty-four candidates were examined for the medical license of the State. Seventeen medical colleges were represented. The results of the examination will be made known after the meeting of the Board at Trenton, November 2nd.

The board decided that the graduates of the Baltimore University School of Medicine subsequent to this year, and those of the Maryland Medical College, will not be eligible for the examination and license of this State.

The use of porcelain to fill teeth with was strongly advocated at a clinic of the Central Dental Association of Northern New Jersey, held in Newark last month.

A number of teeth were filled with this substance, which is said to be as durable for this purpose as silver or gold. It also possesses the great advantage that it is scarcely perceptible when in the teeth.

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Up in Hunterdon county, the farmers believe that no remedy will cure more than three different diseases.

The converse of this proposition is, however, held to be true, and any remedy must be able to cure three diseases before it can be classed as good.

We have heard of one patient who was cured of mendacity, amnesia and agustation by the exhibition of one medicament.

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It is gratifying to be able to say that after many vexatious delays, the Board of Managers of the New Jersey Sanitarium for Tuberculous Diseases, fully expect that the institution will be completed and ready for occupancy by October 1, 1905.

At least that the buildings shall be completed by that date, is made part of the contract with the builders.

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*The Committee on Scientific Work desire to give notice that interesting original papers from members of the Society are desired for the next annual meeting.*

*The titles and a brief synopsis of each paper should be in the hands of the committee by March 1st, 1905, so that a properly balanced program may be arranged and, wherever it seems advisable, a suitable discussion upon the subject of the paper may be provided for.*

*Address all communications and inquiries to*  
 TALBOT R. CHAMBERS, M. D.,  
*Commercial Trust Building,*  
*Jersey City, N. J.*

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The Clinical Society of the Elizabeth General Hospital and Dispensary held its eleventh annual meeting on October 18th. The society was entertained at dinner by the retiring President, Dr. Charles H. Schlechter.

Dr. F. R. Bailey was elected president for the ensuing year.

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The section on laryngology of the New York Academy of Medicine will give a dinner at Delimonic's on November 1st in honor of Sir Felix Semon of London.

**OBITUARY.**

**Isaac Newton Hugg, M. D.**, Philadelphia, 1869, died at his home in Camden, N. J., from uræmia, October 15, aged 64.

**Samuel E. Freeman, M. D.**, College of Physicians and Surgeons in the City of New York, 1858, the fifth of that name in direct line to practice in Woodbridge, N. J., died at his home in that city, September 24, from apoplexy, after an illness of two months.

**Oliver Soper, M. D.**, died at his residence in upper Montclair, from apoplexy, October 22. He appeared to be in his usual health in the morning and got up and made an early call. At breakfast he felt ill and gradually became unconscious, dying at 3 o'clock, P. M. He leaves a widow and two children. Dr. Soper graduated at the Eclectic Medical College of the City of New York in 1877. He was 60 years of age and had practised in upper Montclair 12 years. He was well known and widely respected. He was a member of various social organizations and of the William Pierson Library Association.

PLAINFIELD, N. J., Oct. 12, 1904.

*To the Members of the Union County Medical Society:*

DEAR SIRS:—At the last meeting of the Plainfield Clinical Society the undersigned were appointed a Committee to call your attention to the fact that there is no law in this State which protects the confidential statements between patient and physician when such statements are concerned in actions before the courts. The members of the Clinical Society would urge that measures be taken to secure the passage of the necessary law.

Very respectfully,  
WM. H. MURRAY,  
H. H. PROBASCO.

*Approved and endorsed by Union County Medical Society.*

Oct. 12, 1904.

H. R. LIVENGOOD,  
*Secretary.*

Dr. Paul L. Cort has resigned his position on the medical staff of the New Jersey State Hospital at Trenton, and will enter upon the practice of his profession at 137 East State street, Trenton, on November 15th.

Dr. William J. Condon, of New Brunswick, has been appointed hospital steward to the 2nd Regiment, New Jersey Militia. The doctor has had three years' service in the Philippines.

The Practitioners' Society, of Eastern Monmouth, was organized July 1st, 1901. It started with a membership of fifteen, and now has thirty-three names on the roll. Meetings are held in the evening, on the second Thursday of each month, at the residences of the members.

Papers on medical subjects are read and discussed, and interesting cases are presented. As often as possible, pathological specimens are exhibited. After the meetings light refreshments are served. The society has been highly successful, and the meetings are well attended.

At the annual meeting October, 13th, the following officers were elected for the ensuing year: Dr. S. J. Wooley, of Long Branch, president; Dr. D. D. Hendrickson, Middletown, vice-president; Dr. W. K. Campbell, of Long Branch, treasurer, and Dr. W. B. Warner, of Red Bank, secretary.

Antitoxin is to be distributed free to the poor by the boards of health in Burlington County if the Burlington County Medical Society can bring it about.

Diphtheria broke out last month in Salem City, and the schools were closed to be disinfected. One death resulted.

There is a plan on foot to expand the Physicians' Automobile Club, of New Jersey, into a national organization.

Dr. Howard Kelly, of Baltimore, will give an illustrated lecture on appendicitis before the William Pierson Library Association in December.

Dr. Henry Mitchell, of Asbury Park, will speak before the Orange Mountain Medical Society this month on Municipal Health Boards.

Dr. Koenig has been elected president of Pennsylvania Medical Society.

Dr. C. L. Stevens, secretary of the society, has been appointed editor and publisher of the *Pennsylvania Medical Journal*.

Dr. William E. Hitchcock, of Newark, has been placed in command of the uniformed rank Knights of Phythias, of the State of New Jersey.

Dr. James T. Wrightson, of Newark, has recently returned from a successful hunting trip in Canada.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D. 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the authors of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.

Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.



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The next meeting of the American Medical Association, Portland, Oregon, July 11-14, 1905.

# The Journal of The Medical Society of New Jersey.

Published on  
the First Day of Every Month.



Under the Direction  
of the Committee on Publication.

## COMMITTEE ON PUBLICATION:

WILLIAM J. CHANDLER, M. D.

DAVID C. ENGLISH, M. D.

HENRY W. ELMER, M. D.

RICHARD COLE NEWTON, M. D., Editor.

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## THE TREATMENT OF ANGIOMATA BY BOILING WATER.\*

By JOHN A. WYETH, M. D. LL. D.,  
NEW YORK.

In May, 1903, at the meeting of the American Medical Association, in New Orleans, I read before the section on surgery and anatomy a short paper upon the treatment of vascular tumors by the injection of water at a high temperature, with other suggestions as to the employment of this agent in tuberculous adenitis, certain forms of abscess, fistulous tracks, etc.

Of the various forms of angioma, as classified upon an anatomical basis, those which are found on the arterial side (arterial angioma or cirroid aneurism) and those which are found on the venous side (venous angioma or cavernous nevus) have yielded under this treatment more satisfactory results than the capillary angioma, more commonly called "mother's mark." In fact, the action of boiling water injected into a cirroid aneurism or a cavernous nevus has in every instance, in which I have personally supervised the treatment, proved entirely curative and satisfactory; and these results are especially gratifying since they are achieved in cases, many of which are absolutely inoperable, and therefore hopeless of cure by any other method so far devised.

\*Read at the one hundred and thirty-eighth Annual Meeting of the Medical Society of New Jersey, June, 1904.

Fortunately, cirroid aneurism is of rare occurrence. I reported at New Orleans an extensive tumor of this variety, situated upon the scalp and over the parietal bone of the left side of the cranium in a young woman about twenty-five years of age, which not only disfigured her and practically excluded her from society, but had resisted three different efforts by well known surgeons for relief by operation. This tumor was extensive, covered about one-half of the left side of the scalp and was entirely solidified by a single treatment in which several ounces of boiling water were injected. The tumor underwent granular metamorphosis and was absorbed. There was no necrotic process established, and no deformity persisted.

Within the year in a second case of cirroid aneurism which involved the right side of the scalp above the ear over the temporal region, extending to the occipital region and into the neck two inches below the mastoid process of the temporal bone, involving also the ear which was enormously hypertrophied, I have employed the same method with success. As the integument over a large part of this tumor had undergone degenerative changes and was covered with papillomata, considerable sloughing occurred since this weak tissue was unable to resist the escharotic action of the hot water. I first began by injecting directly underneath the skin and into, or in the immediate proximity of, the tortuous arterioles which communicated with this mass from the temporal



region and the scalp. These were blocked off by coagulation and the needle of the hot water syringe was then introduced into the pulsating vascular mass. Through the delicate puncture of the finest hypodermic needle I could employ, the blood spurted a distance of two or three feet until the action of the boiling water coagulated the vascular contents and arrested the hemorrhage. These injections were repeated under complete narcosis three different times, requiring from five to fifteen minutes at each operation. The entire vascular portion of this large growth was at last solidified, except that part which was located below the tragus of the ear and in immediate contact with the facial nerve. As the hot water injected at this point would destroy the nerve and produce facial paralysis, I determined to tie the common and external carotid arteries and the branches of this latter vessel which were distributed to the diseased area. The patient promptly recovered from this operation which cut off all blood supply, except the collateral circulation through the enlarged capillaries. I then incised that part of the angioma not yet entirely occluded, from which I was surprised to encounter a very severe hemorrhage. This was arrested at once by packing with gauze which a week later was removed. I then finally anaesthetized the patient and cut away all excesses of solidified tissues, carried the ear back into its normal position, where it soon became attached, and the patient is now well.

At the time of my first report on this method I placed on record several cases of extensive and otherwise inoperable cavernous nevi (venous angiomata) all of which were successfully treated by coagulation with water at a high temperature, and since then I have operated upon other cases, one of which may deserve especial mention.

The patient, E. R. B., a girl ten years of age, consulted me on account of an extensive cavernous nevus of the left cheek. There was a series of large blue veins which ran upward in the direction of the eye and backward to the ear beneath the skin of the face. These enlarged vessels were clearly seen through the delicate covering of integument. At the angle and along the lower border of the jaw of that side the skin was projected fully an inch more than upon the opposite side. When the head was lowered or when the patient cried or coughed these vessels became distended to such an extent that the tumor was two or three times increased in size. The electric cautery had

been tried, the needles penetrating the buccal wall from within the mouth. These repeated cauterizations had occluded some of the vessels just beneath the mucous membrane, but had not affected those beneath the integument. In this case I felt it was of first importance to coagulate the large vascular mass along the line of the lower jaw and in the neck, and to guard as far as possible, during the operation, against the escape of emboli into the jugular vein.

On February 1st, 1904, the patient was chloroformed, and while the hot water was being injected, compression of the jugular and along the lower margins of the tumor was made. Coagulation was almost instantly effected, the compression was removed and there was no accident connected with the operation. The hardened mass underwent granular metamorphosis and disappeared by absorption within two months, when the child presented herself again for further operation upon the blue veins or sinuses of the neck. These were carefully injected at different points, only a very small quantity of water being required (about five minims for each puncture).

While as yet in my own experience there has been no escape of coagulum from the region of operation into the general circulation, I deem it always a possible danger, which should be taken into consideration before the operation is performed, and for the prevention of which every precaution should be taken. Compression on the side nearest the heart in venous angioma is always advisable until coagulation, which rapidly occurs, is effected. Were I to inject a tumor upon an extremity with room enough between the neoplasm and the trunk for the application of a tourniquet, I should deem this advisable, holding the circulation of the veins in control until the substance of the angioma was coagulated by the hot water. In using this agent for the consolidation of these tumors one must use careful judgment not to produce necrosis of the part by having the water too hot nor by over distension, but at the same time to have it hot enough to produce the desired coagulation. One is apt rather to put the water in at too low a temperature than to get it overheated. Taking the instrument out of the boiling cauldron and filling it with boiling water, adjusting the needle and applying it, does not imply that water at a temperature of 212° F. is being brought in contact with the tissues. The cooling process takes place rapidly and even the passage of

very hot water through the small needle and contact with the blood and tissues of much lower temperature rapidly diminishes the heat.

In my later experience I prefer to hold a Bunsen burner under the boiler of the syringe until the heat is so great that the water is projected violently through the needle. It is well while doing this to take the precaution always to hold the syringe with the index and second finger in the rings of the cylinder and the thumb in the ring of the piston, and with the instrument beneath the hand so that any water trickling out will pass away from and not scald the fingers of the operator. The piston should be held strongly in place to prevent its being blown out by pressure of the expanding liquid. The hands should be protected by a pair of kid gloves and it is a wise precaution to re-enforce these with a pair of hop-picker's gauntlets. In carrying the instrument toward the patient there is always danger of scalding, provided the end of the needle is not shielded by holding a pad of gauze in the hands of the operator. The hot water or steam which is ejected then falls on the gauze and does not touch the patient, the needle being thrust through this pad to the point where it should enter the tumor. In operating about the face, and in fact, elsewhere, I always take the precaution to cover all but the part to be injected with a gauze matting so that should any leakage occur through the fault of the instrument, or its adjustment, no scalding will occur. An assistant with a sponge saturated with cold water should always be at hand, ready to neutralize the heat of the injected water should it regurgitate through the punctures made by the needle.

These precautions are especially important in dealing with the more difficult forms of angiomata, the capillary variety ("mother's marks") which are usually situated upon the face. In dealing with these my experience has been larger for the reason that they are more frequent, and as I have heretofore said, the results are not so satisfactory as with the cirroid aneurism or cavernous nevus. They are very apt to break down under the heat and to become infected and suppurate and leave a scar which although much smaller than the original deformity may subsequently have to be removed.

In performing these operations upon children I do not, as a rule, administer an anaesthetic, having them firmly held by two

or three assistants so that no motion is possible. The procedure only lasts for a minute or two and the pain does not seem to be severe. I deem it preferable in these cases not to inject more than a few minims of the boiling water, from four to five up to ten or twelve minims, according to the size of the growth. I also prefer to carry the needle in through the sound integument about one-eighth or one-sixteenth of an inch from the edge of the growth, pushing the point to about the center of the neoplasm, and then injecting the water forcibly until the angioma begins to swell and turns an ashy gray. In the after treatment a simple dressing of dry gauze is sufficient.

### DISCUSSION OF DR. WYETH'S PAPER.

**Dr. W. L. Rodman, of Philadelphia.**—I have been greatly interested in the paper of Dr. Wyeth's, and, in fact, in all his previous publications and reports which, from time to time, have appeared showing his success in the treatment of angiomata. We certainly owe a great deal to Dr. Wyeth for introducing a treatment which offers so much promise in unpromising cases. The most satisfactory treatment for angiomata is, of course, excision when practicable. By cutting widely of the tumor hemorrhage can usually be avoided and such growths can be operated upon as successfully as other forms of neoplasm. Unfortunately there are so many tumors that are situated about the face and in just such tumors there would follow such scarring that patients would object most seriously to such operations; therefore, anything which promises relief in these cases is indeed valuable and a great contribution to surgery. I have seen other forms of treatment than excision that have been moderately satisfactory yet not entirely so. One year ago Dr. Wyeth was in Philadelphia and told me about this treatment. I have had occasion to use it in only two cases. I regret that these two cases were of the variety spoken of and were not entirely satisfactory in their results; they were situated about the face and were of the capillary variety, or capillary mixed with the cavernous. Of course, any classification of angiomata is largely arbitrary and we, therefore, speak of the cirroid, the cavernous and the capillary. And yet not infrequently all are combined, particularly the capillary and the cavernous. In both of my cases the capillary and the cavernous variety of naevus were combined.

The first case was a child, two years old, who had a growth, a large tumor, which I felt could not be removed by excision, because of cosmetic reasons; cutting was practically out of the question. Such a procedure would not only cause scarring, but the contraction of the scar about the eyelids would have been very undesirable. Having heard of the treatment of Dr. Wyeth, I used it and while I could not say the case was not improved, it certainly was not cured. I used it four or five times in this case under chloroform anaesthesia and I made the injections with great care, following out Dr. Wyeth's technique. I think



the case was benefited but the mother lived some distance from Philadelphia and so would not give me an opportunity to treat the patient as I liked. I followed the treatment and the technique as well as I was able to. I do not think that I was given a fair trial in this case.

The second case I only saw a few weeks ago. It was one of a capillary and cavernous angioma combined and involved the lower lip. Excision was impracticable because to have done so would have been to have removed the entire lower lip. I injected it three weeks ago tomorrow under chloroform anaesthesia. I used the water at the boiling temperature and injected it into three or four different parts of the tumor. The patient reported to me every day and reinjection was not performed until one week later. The second injection was a very satisfactory one and has been followed by much benefit. I regret to say I have not been able to make three injections because the mother, for some reason or other, declined to have the treatment continued. I believe that if I had been able to have made three or four more injections I should have been entirely successful. I prefer to use chloroform in these cases. These injections were undoubtedly followed by material benefit and I regret that the injections could not have been kept up for I feel convinced that a cure would have resulted if an opportunity had been given me to continue them. I used boiling water as advised by Dr. Wyeth and injected it into the tissues until they became an ashen-grey color and the heat in them could be appreciated by the fingers.

I think this has been a very valuable contribution to modern surgery. This means of curing tumors which hitherto have resisted ordinary procedures. I prefer excision when practicable. I believe that Sutton and others agree that this is a most feasible, anatomical procedure but it is not always practicable. The only danger in the treatment is the possibility of emboli forming, but I believe that can be guarded against. So far as I know no one has, as yet, recorded any deaths from the employment of injections of boiling water in the treatment of angiomata.

**Dr. Wm. J. Chandler.**—I should like to ask Dr. Wyeth if any fatal cases have been reported as the result of the treatment outlined. In conversation Dr. Bulkeley, of New York, said he had tried the treatment and had one fatal case. He was asked to come here and make a statement, and I am sorry that he has not appeared.

**Dr. Wyeth** (closing the discussion).—I have not heard of a fatal case in this country. In London a child died seemingly of pulmonary infarctions of some kind. The patient had already some pulmonary trouble. This was reported to me by one of my students. I wrote for details but never heard further regarding the case.

I should like to say regarding the recommendation for excisions of such growths, I hardly agree with Dr. Rodman. I think it has been everywhere settled that neoplasms, if they can be thoroughly removed by excision with proper approximation and the employment of aseptic precautions should be subjected to this treatment. It is a very important point to have as small a cicatrix as possible and I have noticed that in a considerable number of cases, by the careful use of hot water, you can produce a considerable shrinkage in a mass; so that a neoplasm covering the diameter of one inch will shrink one-half an inch, finally. If, by excising, we can get a very small cicatrix

and practically an insignificant scar that would be the better result. I use this method with neoplasms larger than one inch in diameter. Recently a young physician came to me with an angioma of the cheek and it was about one-half an inch in diameter. It was red in color and radiating from it were spokes of blood vessels. I injected one per cent. cocaine and then injected hot water, keeping my finger over the place to judge of the degree of heat. So soon as the heat made me take off my finger I stopped the process and to-day there is not a sign of the trouble to be seen on his face; this is the best result I have ever had.

With regard to the anaesthetic, I think chloroform is dangerous in children. I know of two children who died in one day, in one hospital and at one clinic in New York, while under chloroform, and this has made me very cautious, so much so, that if I was to operate upon my own boy by this method, I would hold him in my arms and not give a general anaesthetic. If an anesthetic is to be given, ether is to be preferred.

### SOME ABUSES AND USES OF CARDIAC STIMULANTS.\*

BY W. BLAIR STEWART, A. M., M. D.,  
ATLANTIC CITY, N. J.

The poor tired flagging heart of a dying man usually receives most attention in the last hours of life and every cardiac stimulant known to medical men is tried in the vain effort to preserve vitality. Too often is the peaceful sleep of death in a positively hopeless case disturbed by the vain effort to prolong the agony for a few hours more. The patient is brought back again to live over the agonies of hours gone by; and to what end? If there is the least hope of recovery we are justified in such treatment. If important papers are to be signed or information gained we may be justified. If only to have one more parting word, one knowing smile, one sign of recognition, are we justified? When the vital spark of life is gradually growing dim from the effects of poisons constantly produced by the disease and not eliminated from the blood, are we justified in using cardiac stimulants to whip up the heart and trust to Nature to do the rest? Is this striking at the cause? Why give cardiac stimulants when large quantities of blood are lost? It is systematically done by many. A saline transfusion or hypodermoclysis is the natural remedy at our command and, if not this, a free salt enema or ingestion of salt water by mouth. Once the volume of blood is re-established a cardiac stimulant may be needed, and if so, should be given at once.

\*Read at the one hundred and thirty-eighth Annual Meeting of the Medical Society of New Jersey, June, 1904.

How many use digitalis and strychnia in their daily practice and give it in almost every prescription whether there is or is not the least cardiac weakness! One should examine first for fever, for toxic causes, for indigestion, for constipation, for an overacting heart, for over mental or physical work, or for many other causes that may produce cardiac symptoms. Why give cardiac stimulants as a routine practice? Men will come to you with the report that they have used a pill or liquid containing digitalis, strychnia, or some other drug for months and years and wonder why they are still nervous and not like other men. They use patent medicines and stimulants, the composition of which they know not, and indiscriminately recommend the same to their friends. We, as physicians, all know the evil effects of such things and see many deplorable results produced by overstimulation of a heart that really needs sedation. Look at the over-trained athlete with his hypertrophied heart. How often is he injured by the indiscriminate use of digitalis and other cardiac stimulants? This is a case for the closest study and fine discrimination between the activities of the body—sedation or stimulation—not a case for routine treatment. Hemoptysis and epistaxis often increase under stimulation of an overactive heart. When suffering with an acute congestive throbbing headache, why stimulate, as is often done? Have you ever stopped to think of the abuse of stimulants in Bright's disease and heart diseases?

The daily papers by their advertisements of pills and liquids cause their free use by a gullible public and are directly and indirectly responsible for many deaths. The base of most of the heart remedies advertised is digitalis and it is a poison if improperly applied. The public smiles with approval upon these methods of self prescribing and "beating the doctor" and if death comes they say that it is due to the disease. The physician loses a case and in spite of every scientific means employed is often censured severely. Cardiac stimulants are too frequently abused in the early stages of fevers. It is a great mistake to begin stimulation when there is an overacting heart and fever. Hold stimulants in reserve for the time when they are indicated and when they will do the most good. Do not resort to free cardiac stimulation in advanced atheroma or during the acute stages of an apoplexy.

If cardiac stimulants are to be administered intelligently and correctly it is neces-

sary to first understand the anatomy and physiology of the heart and circulation; to promptly diagnose and recognize all valvular irregularities and reason out their effects; to recognize all causes having a direct and an indirect effect upon the heart and to differentiate acute from chronic processes; and finally to study your *Materia Medica* and the physiologic action of each drug used. The simple statement that digitalis, strychnia, convallaria, and strophanthus are cardiac stimulants does not mean that they have an identical action. When digitalis is mentioned, it is well to remember that there are many preparations and many separate results to be obtained from their use. One remedy should not be used to the exclusion of others, nor should it be used sufficiently long to produce tolerance, injury, or secondary effects. Cardiac stimulation can only be carried to a certain point before that organ becomes overworked, weakened and depressed by the very remedy given to produce a contrary result. Watch carefully and discriminate sharply in every case and diminish or withdraw your drug at the earliest possible moment. When carried too far the muscle cells of the heart become overworked and weak and finally paralyzed, with consequent death.

When the heart is working with a comparatively true rhythm and the pulse is good it is a safe rule to withhold cardiac stimulants. When the action is tumultuous and strong and bounding, do not stimulate to still more activity. When treating children and very old people use stimulants only with the greatest care. When should we use a cardiac stimulant? Only when there is evidence of the heart failing to perform its proper function in keeping up an active circulation. Stimulate in syncope, in failing compensatory cardiac hypertrophy, in certain valvular defects where special drugs are indicated, in poor innervation of the heart, in extreme physical tire, in shock, and in many other conditions where real heart weakness is present.

If we would get rapid results the diffusible stimulants are best and of these the volatile ammonia preparations are best. We must remember however, that these preparations of ammonia, when long continued, have a deleterious effect on the blood and should be used for a short period only. They are best held for emergencies and particularly those emergencies where there is some lung or bronchial involvement. We must bear in mind that an improperly acting



mitral valve may be the cause of an unequal circulation and must be watched. Digitalis has first claim here not only as a direct heart stimulant but as a cardiac regulator. It is probably more successful in the latter sense than the former. Now revert to the aortic valve—in stenosis, digitalis produces such a violent contraction of the heart muscle that it is contraindicated; in regurgitation it prolongs diastole unduly and allows too much leakage and thus seems to do harm, although some cases appear to do well under its careful use. In a failing compensatory hypertrophy with degeneration, digitalis should be used with the greatest care if at all, as there is danger of rupture of the heart muscle. In angina pectoris digitalis is a dangerous remedy and will increase the pain in most cases. In a case of functional heart weakness, where quick results are wished, give your diffusible stimulants first and follow or combine them with the slower acting drugs and by the time the former have ceased acting the latter will follow with a more prolonged effect. Strychnia is probably one of the best cardiac and nerve stimulants in the *Materia Medica* and the most abused. It acts well in functional and some organic cases of heart weakness and may be used to reinforce digitalis and other cardiac stimulants. It must be used discreetly as there is a real *strychnia habit*. Many patients use it daily for months and years and grow to depend upon it for stimulant effects and feel greatly depressed and lose their appetite when it is withdrawn. Each drug might be reviewed but this does not come within the province of this paper.

Cardiac conditions are influenced by many occurrences, within and without the body, and it is our duty to recognize them and not jump to the use of cardiac stimulants to relieve a symptom only. Poor elimination influences heart action greatly and needs direct attention. Bright's disease produces certain cardiac symptoms that are relieved by elimination. Sudden contraction of the arterioles in fright, shock, injury, cold and some other conditions affects the heart directly. The indications are to restore surface circulation and equalize it. Alcohol and nitroglycerin find a place here as stimulant and vasodilator, respectively. This suggests a question that was recently raised in one of the medical journals—whether nitroglycerin, alcohol and some other so-called cardiac stimulants are properly classed. Nitroglycerin undoubtedly acts largely by its vasodilator effects and thus relieves

an overburdened circulation and heart. This of itself will probably produce what seems to be direct cardiac stimulation; but what we recognize as cardiac regulation. It is really a cardiac regulator and not a direct stimulant. It is frequently given in combination with digitalis to counteract the physiologic arteriole contraction of the latter and thus allow direct stimulation of the heart, without limiting the volume of the circulatory channels. The use of alcohol is so shrouded by total abstinence bias that it is hard to get two opinions alike in regard to its physiologic action. There is no question in my own mind as to its stimulant properties, but it probably acts more through the nervous system than as a direct cardiac stimulant. Be this as it may, it is only a question of technicalities and the old classification will fit our present needs. If we did subdivide the cardiac stimulants we could classify them as (a) direct cardiac stimulants; (b) indirect cardiac stimulants, and (c) cardiac regulators. It is my desire to urge upon the profession the necessity of closer discrimination in the use of this class of drugs; a closer study of diagnosis and physiologic processes; a systematic study of the physiologic and toxic action of each drug; and an application of the proper remedy in its proper place.

## REPORT ON PROGRESS IN RHINOLOGY AND LARYNGOLOGY.

(Read at the 138th Annual Meeting of the Medical Society of New Jersey, June, 1904).

By F. C. ARD, M. D.

Plainfield, N. J.

A review of the literature of the past year shows abundant evidence of progress in our knowledge of diseases of the nose and throat. You will all recall the fact that a few years ago the otologist was limited to making applications to the ear in purulent conditions, inflating cases of chronic otitis, and removing cerumen from the canal. Since that time the surgery of the temporal bone has developed so marvellously that otology has taken a commanding position among the specialties. In the recognition of the relation of the accessory sinuses to the diseases of the nose we have a parallel condition and tremendous activity is evident among rhinologists in formulating methods of diagnosis and treatment.

*Observations on the Diagnosis of Nasal Sinusitis*—Walter J. Freeman. (*Annals of Otol. Rhin. and Laryn.*—Sept., 1903). Under the head of *Frontal Sinusitis*—Late morning headaches, fulness under the eyes on leaning over, exquisite tenderness at inner angle of the orbital roof, backed by discovery of muco-purulent secretion at the peak of the vestibule presents a clinical picture sufficiently clear for exact diagnosis.

Difficulties arise when symptoms are less pro-

nounced or there is co-existing inflammation in some of the other sinuses. In diagnosis of antrum troubles no sign has stood me in such good stead as the discovery of pus flowing over the upper surface of the posterior end of the inferior turbinated body. The anterior ethmoidal cells are less frequently affected than is generally supposed. The feeling of bare bone by the probe is due to the thin mucous membrane covering it. Vertigo and pain at the occiput, deep in the eyes and in the ears may be caused by inflammation in any one of the sinuses, and the distressing pain across the bridge of the nose considered so characteristic of ethmoid disease I have repeatedly caused by manipulations within the cavity of the sphenoid.

When the frontal sinus and antrum were positively the only cavities involved. I have had cases where the ear-ache was intense and in which the pain ceased on irrigation. Cases of obstinate asthenopia not relieved by glasses should direct attention to the nasal sinuses. Observation of the point from which pus comes is of value after the nasal cavities have been carefully cleaned. The morning is a favorable time for detecting pus from the frontal and ethmoids, the evening from the antrum and sphenoid.

*Suppuration of the Maxillary Antrum, with special reference to diagnosis and Treatment.*—Read by Tilley before the Odontological Society of Great Britain, November, 1903.

Paper based on 82 cases seen in past two years.

Causes—Infection from the nose especially during acute specific fevers, influenza, erysipelas, scarlet fever, measles, diphtheria, typhoid and pneumonia. Traumatism will account for a certain number of cases. The dental or nasal surgeon may not be entirely free from blame.

Symptoms—Acute throbbing pain in the cheek and orbital region, tenderness of one or more teeth, sometimes the soft tissues of the face and cheek are swollen and tender, while fever and the constitutional symptoms associated with it are present. Relief follows abscess bursting into the nose or extraction of an inflamed tooth.

Patients suffering from a chronic antral suppuration complain of an offensive discharge from the nose, a frequently recurring disagreeable taste, increased difficulty in breathing through the nose, chronic nasal catarrh, headache, brow ache, feeling of weight over forehead and around the eyes.

Diagnosis—Ask patient to blow his nose thoroughly until pus is expelled, then let him rest from three to five minutes with the suspected antrum uppermost. On again blowing the nose the yellow and offensive pus will appear on the handkerchief.

Let patient place the feet close together and endeavor to touch the toes without bending the knees, congestion is produced and aching of inflamed tooth or diseased antrum or corresponding frontal region will be produced. Transillumination is valuable as confirming suspicions founded on other symptoms.

Treatment—Alveolar drainage in those cases whose duration is months instead of years.

*Radical operation*—Opening in anterior wall of the antrum and removal of a portion of inner wall. It is of the utmost importance in this operation not to overlook occasional cells occupying the floor of the orbit which may reinfect the antrum. Of 37 cases operated, 34 were successful and there were three imperfect results. No complications except neuralgia in 4 cases.

*The Technique of Maxillary Sinus Operations*—Holbrook Curtis. *The Laryngoscope*.—Oct., 1903.

The author calls attention to small ridges of bone obtruding in the angles of the antrum. They are surgically important as they are accessory recesses, which may be overlooked in the radical operation and reinfect the cavity. He favors the Caldwell-Luc operation in which the antrum is opened through the anterior wall and curetted, a counter opening being made in the inner wall.

When a general anæsthetic is contra-indicated, he advises the removal of the anterior third of the inferior turbinated body, thus exposing the inner wall of the antrum. An opening is made through this inner wall and the cavity curetted.

Luc, of Paris, in an article in the *Annals of Otolaryngology and Rhinology*, says "Distinction should be made between the cases where there is primitive infection of the mucosa and those cases in which pus merely drains from the frontal and ethmoids."

He speaks of three methods of reaching the ethmoidal cells:

1. Through the normal way of the nose.
2. During the maxillary operation.
3. During the frontal operation.

Speaking of the sphenoidal sinus he says: "If the nasal fossa is spacious enough and there is no complication of the maxillary, it is best to open through the anterior wall, making a large opening in order that it may remain permanent for future drainage. Deflected septa, enlarged turbinals and any obstructions should be previously removed."

If the maxillary antrum is diseased, this is by far the safest and easiest way to open into the sphenoid as shown by the experience of Jansen Fürst and the author.

Coakley in the *Laryngoscope* contributes an article: "*An easy method of entering the Sphenoidal Sinus for Diagnostic Purposes*. Dec., 1903.

The sinus is examined:

1. When muco-pus is found in the nose on anterior or posterior rhinoscopic examination.
2. Where a diagnosis of suppuration in any other accessory sinus is determined.
3. Where a history of catarrh (post-nasal) or of dropping in the throat is secured.
4. Where there is a history of occipital pain or pain deep in the orbit.
5. Where polypi are seen on posterior rhinoscopy.
6. In all cases of atrophic rhinitis.

The tissues are contracted by cocaine and adrenalin and carefully cleansed.

An applicator is bent slightly 3-4 of an inch from the end and introduced between the middle turbinated and the septum 1-8 of an inch above and parallel to the lower border until it reaches the anterior surface of the sphenoid bone. The surface is tested until the instrument passes into the cavity. This manoeuvre is successful in nearly all cases and determines whether suppuration is present by microscopical examination of the secretion brought away on the cotton.

Beaman Douglass, in a paper read before the Academy of Medicine in March of this year, expresses the opinion based on the study of a large number of operations on the cadaver, that the intra-nasal operation on the frontal sinus is attended with considerable danger for the following reasons:

1. The frontal sinus may be absent.
2. The posterior wall of the frontal sinus,



which supports the anterior lobe of the brain may vary in position from four to forty m. from the naso-frontal duct.

3. The investigator may be mistaken in believing he has entered the frontal sinus, when as a matter of fact, he has entered an ethmoid cell. Operations conducted under this belief are dangerous, for the roof of an ethmoid cell is only on the level with the frontal sinus.

4. The direction and position of the nasal frontal duct vary considerably and the direction is often more oblique than we expect it to be. Obliquity of the duct increases the danger of intra-nasal operation and brings the posterior wall nearer the frontal nasal duct.

5. The olfactory fissure is an element of danger.

*Jaques and Motley in Rev. Heb. de Laryn. D'Otol. et Laryn.* Aug., 1903, report "A fatal case of Post-Operative Complication of the Frontal Sinus." A fatal lepto-meningitis developed after operation with death on the third day. The authors draw the conclusion that in the exceptional cases in which the frontal sinus is of large dimensions and the walls especially delicate it is better to leave the mucous membrane intact, no matter how altered, and to limit the surgical intervention to establishing a large and permanent drainage by means of simple ethmoidal resection.

Additional experience with empyema of the sinuses tends to establish the fact that if one cavity is infected, sooner or later, other cavities in the head will also be infected. It is unnecessary for me to point out to a body of medical men the grave danger to the patient who has a half dozen infected cavities in his skull. It is reasonable to assume that it is only a matter of time before the infection of the cranial cavity will occur and a fatal result ensue. The literature of the past year shows evidence of the grave nature of this malady in the number of deaths reported. If the unreported cases and unsuspected cases of death from this cause were known the results would be startling.

*Atrophic Rhinitis*—Sub-mucous injection of cold paraffin injected into the inferior and middle turbinated bodies is said to give immediate results. Unpleasant sensations of cold, dryness and headache disappear. The purulent secretion at first increases and becomes more fluid, later less profuse and still fluid. Crust formation decreased. Vile odor lessened and even entirely destroyed. Moure and Brindel speak highly of this treatment and report the results in 70 cases.

*Treatment of Cervical Adenitis due to Tonsillar Infection.* Rogers. *Med. Record*, Nov. 28, 1903.

The author states that the cervical glands receive their lymphatics from the tonsils and the extension of infection by this means is a common occurrence.

He advises the removal of diseased tonsils before attempting the external operation in cases where the lymph glands have not broken down. He reports five cases where the swelling of the neck disappeared after removal of the tonsils.

*Harmon Smith*, in a paper read before the Academy of Medicine, New York, December, 1903, mentions six reported cases of death from hemorrhage following tonsillotomy. He places the causes in the order of importance as follows:

1. Hemorrhagic diathesis.
2. Fibroid tonsils.
3. Age; occurring more frequently in adults.
4. Sex; more frequently in males.

5. Anaemia.

6. Acute inflammation. Concensus of opinion is against removal when this condition exists.

7. Malignancy.

8. Abnormalities in distribution of blood vessels.

*Means of control:*

Paquelin or Galvano-cautery, torsion by means of ligature through the tonsillar folds and twisting by means of artery forceps.

He speaks most highly of the Mickulicz-Stoerk tonsillar haemostat, reporting its successful use in three cases of alarming hemorrhage.

He advises wrapping the inner compressor with gauze and suggests that too much pressure may cause necrosis of the tissues.

*Paraffin subcutaneously for the corrections of external deformities* by the same author.

Inject only a portion of the quantity you intend to inject at one time.

Discontinue injecting after you observe anaemia of the skin over the deformity.

Take care to have assistant limit area to be injected with his fingers. Use screw piston syringe. Absolute aseptic technique. Paraffin with melting point of 110 degrees, pure as possible. Wait until it is solid. Never inject in diabetic or nephritic patient.

*Richards, J. S., in the Medical Review of Reviews*, Jan., 1904, describes a new method of removing septal spurs. An incision is begun above and posterior and carried down to the floor of the nose. It is then brought forward and carried upward anterior to the spur. The mucous membrane is then deflected upward and spur removed. Flap is then replaced and packed for two days. He states that spurs that are not too far back can be operated in this manner using cocaine and adrenalin. The advantage of preserving the mucous membrane is obvious. The article illustrates the instruments needed.

*The Therapy of Hay Fever* has received a new impetus through the discovery of a new antitoxin serum by Dunbar. Its value will soon be determined.

The value of X-ray treatment of malignant diseases of the nose and throat is still questioned. The case of Scheppegrell of cancer of the larynx, reported cured some time ago, is the only case that I have seen reported.

*Lupus Vulgaris of the Respiratory Mucous Membrane* as it is treated in Finsen Light Institute, Copenhagen. *Hans B. Christianson, (Journal of Laryn., Rhin. and Otol.)*

Three quarters of the cases of lupus of the skin are accompanied by a similar condition of the mucous membrane which is, in the majority of the cases, affected first. The affected part is swollen as a whole, deep red in color granulated with small nodules of a brighter red, and shows white epithelial scales. The light is to be used on mucous membrane where it can be focussed; such localities as the front of gums, lips, tongue and nasal vestibule. Healthy reaction manifests itself by hyperemia and sometimes as loss of epithelium in the more marked cases. Scarification or scraping is never employed.

*Operative Treatment of Stenosis of Larynx following Intubation and Tracheotomy.* *A. B. Duell, (New York Medical Journal)*.

Conclusions:

1. About one per cent. of all patients intubated for acute laryngeal stenosis will retain the tube.
2. The cause of the retention in a majority of

cases is due to chronic inflammation of the intralaryngeal mucous membrane and hypertrophy of the sub-glottic tissues and is not as is supposed the result of granulation, ulceration or cicatricial bands.

Auto-extubation is the rule and adds greatly to the danger.

Where high tracheotomies are done cicatricial bands are almost certain to form in the trachea or lower part of the larynx, above the tracheotomy wound. The largest sized tube possible should be inserted under an anaesthetic.

In case of contraction rapid dilation should be done by beginning with the small sizes and working up to the large special tube which is to be left in place. This special tube should be as large as can be inserted and the constriction below the neck of the tube should be only 1-32 of an inch smaller than the retaining swell. This tube should be left undisturbed for at least six weeks and if a cure has not been established, it should be replaced for six weeks longer.

The prognosis in complete laryngectomy seems improved owing to the improved surgical procedures employed. Many cases of recovery have been reported the past year.

Yankauer in the *Laryngoscope* for March reviews the literature of *Laryngeal Tuberculosis* for the past year.

In the so-called primary tuberculosis the lung lesion is not yet manifest. Sheedy reports a case in which the larynx was involved some months before the lungs were affected. Von Navratil reports a case of four years duration. Thomas reports a case in which swelling and ulceration of the arytenoids occurred before physical signs in the lungs became manifest. McKinney describes the earliest signs of laryngeal tuberculosis.

1. Persistent hoarseness, which does not yield to ordinary measures.

2. A sticking sensation in the region of the larynx.

3. Dysphagia with pain radiating to the ears. When these symptoms are accompanied by the general signs of tuberculous infection, such as emaciation, evening rise of temperature, and night sweats an examination of the larynx should be made.

Chappell describes in the pre-tubercular stage an extreme pallor of the soft-palate, pharynx and larynx. The laryngeal involvement begins as a persistent hyperaemia or infiltration of the larynx, occurring diffusely or in circumscribed areas. Some time later ulceration appears at first superficially. The favorite location for these lesions is in the epiglottis, the posterior third of the vocal cords and the inter-arytenoid spaces.

Persistent swelling in this region is always suspicious.

Kronenberg believes that tuberculous tissue should be removed from the larynx only when the whole infected area can be removed. He also thinks the galvano-cautery will soon be recognized as the best means of cauterization.

Chambers reports a case of removal of the epiglottis for lupus.

Lockard has succeeded in relieving the suffering of the most advanced cases by means of:

1. Division of the posterior commissure in the median line.

2. Division or removal of the epiglottis.

3. Tracheotomy.

Of local applications menthol deserves special mention on account of its anaesthetic, antiseptic

and emollient qualities. A 20 per cent. solution can be used as an injection, inhalation or spray. It may be combined with orthoform as in Freudenthal's formula.

Wingrave reports improvement from intratracheal injections of guaiacol. Godsken has contributed a valuable article on laryngeal tuberculosis during pregnancy and reports 61 cases from the literature. Nearly all the children died in early infancy. The course of the disease is rapid and fulminating. He advances the opinion that abortion should be produced during first half of pregnancy when the general condition of the woman is good and soon as the larynx shows the slightest tendency to become worse.

## A CASE OF INFECTION BY THE BACILLUS AEROGENES CAPSULATUS.

By WELLS P. EAGLETON, M. D.

Read before the Practitioners' Club of Newark, New Jersey.

**Case, Chas. N.**, five years of age, admitted to Newark Eye and Ear Infirmary on January 16, 1903, for operation, for chronic suppurative otitis, of one year's duration; all attempts to stop the discharge and fetid odour, having failed. The operation was undertaken because of threatened cerebral complications. Typical radical operation performed. The child at the completion of the operation, was in such bad condition that two injections of sterile salt solution were thrown into the abdominal wall. The skin over the abdomen was not scrubbed, but only hurriedly washed off by allowing some of the salt solution to flow over it.

Fourteen hours later, temperature began to rise, and in three hours reached 105 degrees. Pulse 160-170. *No complaint of pain.* Abdomen not inspected. Following day T. 101 degrees, P. 140. The whole abdominal skin was discolored and ecchymotic, precisely as appears after a bruise. The margins of this ecchymotic area were very distinctly defined by a sharp line just below Poupert's ligament and by another just above the lower border of the ribs. There was a very small area of superficial skin necrosis on the left side, where the needle had entered, surrounded by a small zone of redness. The abdomen was not swollen or boggy, and not at all painful on pressure, except over the superficial necrosis. The entire right side was absolutely without pain on pressure. Over both sides an indistinct sensation of emphysema could be felt at times.

On the following day, the patient was in much better condition, and the *ecchymosis* had entirely disappeared, there remaining only a slight bronzed condition of the skin, which would have escaped observation, if it had not have been carefully looked for. The emphysema was still indistinctly present however. On the fourth day after the operation, the emphysema had extended on the left side into the flank.

Under ether multiple incisions were made in the abdomen on both sides. On the right side only a little bloody serum was evacuated. The tissues, however, were unusually white and the incisions caused but little bleeding. On the left side, under the area of necrosis, there was a small amount of pus, and a deep slough. Many of the incisions



were followed by the escape of gas, which was of a very foul fæcal odour. Microscopic examination showed a mixed infection, with a large capsulated bacillus. Inoculation on a rabbit by Dr. Hess demonstrated this to be bacillus aerogenes capsulatus.

During the next few days, although the patient's general condition rapidly improved, in spite of a septic diarrhoea, the whole of the cellular tissue of the left side sloughed, including the fascia of the abdominal muscles, so that the sharp edges of the different muscles could be seen through the incisions, the skin being left free without any deep attachment. The incisions on the right side did not slough. It was now noticed that the *entire area of sloughing tissue, and the skin covering it was absolutely anaesthetic*. Once an incision 1-2 inches in length was made without an anæsthetic, without causing any pain. Later, with the development of granulation, the whole area again became sensitive. Whether the anæsthesia was present at the time of the multiple incisions, I am unable to say, as it was not looked for. The anæsthesia of the skin and the rapid disappearance of the ecchymosis, are two points that have not been noted in any of the reported cases that have come under my observation.

Subsequently the case went on to an uninterrupted recovery.

Since observing the above case of bacillus aerogenes capsulatus infection, I have seen another in consultation, and know of five others in the practice of personal friends, so that the infection is not as infrequent as from the comparatively few cases reported it would appear.

Welch, in 1892, first isolated the bacillus aerogenes capsulatus, now recognized as one of the causes of the production of gas in the body after death, of gas cysts of different organs during life, and the sole cause of a very violent and fatal wound infection, associated with rapid necrosis of tissue and production of gas.

The practical value of a knowledge of this micro-organism exists in its early recognition in wound infection, as prompt treatment will often minimize a process, which, if not speedily checked, almost invariably terminates fatally.

The bacillus aerogenes capsulatus, or gas bacillus, is a large anærobic, non-motile bacillus, which takes the ordinary stains well, has considerable variation in size, is generally surrounded by a capsule, the presence of which can usually be demonstrated, and is capable of creating gas, not only from the sugars, like many of the other gas producing micro-organisms, but also from proteids. The gas, that it generates, is composed chiefly of hydrogen and carbon dioxide, (Dunham), and burns with a blue flame. Welch states that the gas is odorless, but in the case reported there existed a distinct

fæcal odour, which probably was caused by the presence of another micro-organism.

The gas bacillus is very widely distributed, being almost invariably found in the human intestinal canal, and in ground soil.

Howard, in 25 consecutive autopsies, found in the intestinal canal, in all of them, large bacilli morphologically resembling Welch's bacillus. Inoculation in animals in ten cases demonstrated these to be bacilli aerogenes capsulatus. It has been found in the dust gathered from the hospital wards, on the hands, and the skin surrounding the anus and scrotum.

With such an extensive distribution, why is infection from it so infrequent? Because in healthy tissue in man, and some animals, the bacillus aerogenes capsulatus is absolutely non-pathogenetic. Inoculation of large quantities of pure cultures into the circulation of a healthy rabbit fails to create any constitutional disturbance. If, however, the rabbit is killed after inoculation, or if the inoculation enters into necrotic or damaged tissue offering little, or no vital resistance, infection follows. Likewise in man; wound contamination by the bacillus of Welch is not followed by any effect, unless the vitality of the tissues infected is seriously lowered by the severity of the trauma, or the general vitality of the patient is reduced. In all of the 50 cases collected by Welch, the infection complicated a lowered vitality. In the seven cases known of by me, the infection occurred in debilitated patients, or in tissues whose vital resistance had been greatly impaired.

The symptoms of wound infection by the bacillus aerogenes capsulatus are high temperature, delirium, somnolence, prostration, the signs of severe toxæmia, accompanied by emphysemæ and ecchymosis of the skin. Wide variations occur in different cases. The emphysemæ is generally present, varying from a few bubbles that cannot be palpated to a rapid infiltration of all the subcutaneous tissues of the body. In very exceptional cases there may be no gas at all. The quantity of bloody effusion also varies; when considerable, severe pain and tenderness from pressure follow, as in any other form of infection, but when a small quantity of serum only is effused, there may be no sensitiveness of the part. This was demonstrated in the case reported.

Infection from gas bacillus causes a rapid necrosis of tissue, without the production of pus, and with little inflammatory reaction, leucocytes being present usually only

in small numbers (Welch). Although in certain tissues, such as the brain, the bacillus seems capable of producing pus (Howard). The infection may cause death within a few hours; usually, if not treated, within 4 days. The patient may, however, live from 10 to 14 days, especially where other micro-organisms also are present. A mixed infection apparently modifies the violence of the process.

The diagnosis must depend on the presence of emphysema, and finding of the micro-organism. In view of present knowledge it is evident that the presence of the slightest quantity of emphysema, not accounted for by the opening of one of the pneumonic cavities of the body, accompanied by the general symptoms of the infection, justifies a diagnosis and demands immediate treatment. Bloodgood says: "With symptoms of infection, the presence of large bacilli morphologically like the gas bacillus, even with the absence of gas bubbles or emphysema, is practically in the majority of cases pathognomonic of a gas bacillus infection."

The prognosis is exceedingly grave. Welch in his compilation of 50 cases, reports a mortality of 50%. Halstead and Bloodgood, however, report seven recoveries out of eleven cases, or about 63%.

In treating this form of infection, it is important to remember, that an anaerobic condition is necessary for the growth of the bacillus, and that the presence of oxygen, while not killing the micro-organism, prevents its multiplying. When the infection is recognized early, multiple incisions, followed by continuous bath treatment, will often arrest the process. One of the advantages of the continuous bath being, that the oxygen in the water is brought into close contact with the infected area.

### \*INJURIES OF THE EYE.

By T. R. CHAMBERS, M. D., Jersey City.

In reading to an audience of general practitioners as this is, the fact has been borne in mind that the paper must be practical.

As we all know, the eye ball, the organ of vision, rests upon a bed of fat in the bony orbit. It is exposed anteriorly when the lids are open and protected when they are closed. It's anatomy, physiology and function are too well known to be dwelt upon, except to note the fact that on account of its location it is exposed to blows striking the bony orbit and unless the eye lie deep in the

cavity it may itself receive a serious injury; as will be illustrated by the two following cases. Mr. T. was thrown from his bicycle while riding very fast and struck the ground with his head, receiving a lacerated wound of forehead, scalp and left eyebrow. The wounds which were quite extensive, were treated by the surgeon, scientifically; cleaned and sewed; and he was referred to me one week later for the injuries of the orbit and lids. It was necessary to put in drains through the cheek, but eventually, with some plastic work, a very fair result was obtained, as regards both appearance and function. During the course of the treatment, which lasted several weeks, atropin and hot water bathing were found necessary to relieve the inflamed eye, the condition of which, at times, was very precarious.

Mrs. D., while striking at a mosquito, hit her eye. The force of the blow expended itself upon her eyeball. Her family physician failed to appreciate the seriousness of the trauma and dismissed it from his mind. The patient, on the contrary, was unable to dispel it so easily from her mind's eye. After suffering two weeks continuously, she presented herself at my office and I found a painful and injected eye—irido-cyclitis. Lymph had been thrown out forming adhesions between the iris and lens, called posterior synechia. The use of atropin and hot salt water bathing gradually brought the eye to rest, but it was a needlessly damaged eye. These adhesions would not have occurred if atropin and hot stupes had been used early, and many weeks of pain and disability would have been avoided.

A peculiar case of stubborn conjunctivitis was once referred to me and it was only by accidentally probing into the swollen conjunctival membrane that an invisible, transparent outer shell-covering of a canary-bird-seed was found to be the cause. An eye stone had been employed in vain and a skilled general practitioner and myself, though we felt convinced of the presence of a foreign body, were only able through accident to dislodge it.

A sudden exposure to a bright light is as truly an injury to an eye as is the wound made by a flying piece of steel. And the consequent optic nerve atrophy is fatal to sight. This paper will not deal with such cases.

Burns of the conjunctiva and cornea by acids, alkaline caustics, molten lead or iron and hot cinders are not uncommon. The epithelium is destroyed and the necrotic tissue appears of a grayish color. At first the damage looks innocent enough but swelling and ulceration follow, and cicatricial shrinking develops painful symblepharon, which interferes with the function of the eye and often prevents work. Water should not be used to wash out a caustic because it would diffuse the burning effect over a larger surface. The cleansing is best done with a brush dipped in oil and later with sugar syrup. This forms an insoluble, inert compound with lime. Cocaine and especially atropin have a heaven-appointed use here but each must be employed intelligently.

It is appropriate to cite one case of so very common an accident as a cinder in the cornea. Dr. W. presented himself at my office saying that a cinder had blown into his eye and that on previous occasions of like trouble he had been able himself to easily remove the foreign body. This time, however, he had failed, probably, and had been kept awake at night by the pain in his eye. On examination, a minute pin-point foreign body was seen on the cornea and it was readily brushed

\* (Read before the Jersey City Practitioners' Club, Oct. 11, 1904).



off with a cotton spud. There was a swollen condition of the superficial layers of the cornea and the sclera was injected. I told him that the eye was infected and that he was suffering from iridocyclitis. It seemed impossible of belief that so serious a disease could be caused by such an insignificant wound. The ophthalmoscope showed a dark infiltration at the site of the wound of the cornea. This appeared as a leucoma. The disease was conquered by the use of thorough atropin mydriasis, zinc chloride instillations, hot water baths and internal administration of salicylate of soda. The point I want to make is this: The doctor, most skilful in removing previous foreign bodies, bungled this case and unconsciously infected the wound or the foreign body itself was septic. He had a specific disease, and during its course, failed to appreciate the necessity for active treatment and thereby occasioned unnecessary delay in its cure. He did not use the atropin thoroughly enough. Again, he was neglectful of his salicylates. When these means were properly pushed, relief was positive and permanent.

It is very safe to hold that iritis is often dependent upon that condition of blood known as rheumatic. Possibly due to excess of uric acid. At any rate, the salicylates are always indicated unless the cause be syphilis. The immediate and direct cause of the iritis may be trauma but cure of the trauma is not necessarily followed by subsidence of the iritis. Hence salicylates should be exhibited in conjunction with atropin. For inflammation of the cornea or iris atropin should be used to complete mydriasis. This means you must paralyze the accommodation muscle completely, in the same way and for the same reason that the surgeon absolutely immobilizes the joint in synovitis. One more point on cornea and iris inflammations; atropin alone might bring about a cure, but the frequent application of moist heat is most kindly acceptable to the sufferer.

A man came to my office with the history that at 9 o'clock the previous day, while hammering an iron bolt, a piece of steel flew from the hammer and lodged in his cornea, giving great pain. He applied to a man whose sign on the front of his house advertised him to be a specialist in eye diseases. This man removed the foreign body, at the same time causing the patient to cry out in agony. The patient's friend standing alongside exclaimed, "How bright red" the eye became at the instant of removal of the foreign body. The patient saw about a half inch of black material hanging from the forceps in the doctor's hand. When I saw him the next day, there was a wound of the cornea and the anterior chamber was full of blood. I did not touch the eye in the subsequent treatment. At the end of two weeks the clot became gradually absorbed and it was found that the whole iris had been extracted, torn from its bed, at the time the foreign body was removed. I report this most unusual case to show what dreadful mistakes may be made. In this case the operator was a man who professed to be acquainted with the subject and was either ignorant or extremely, negligently clumsy and the eye without the protection of the iris will probably be a useless organ and perhaps have to be removed.

A young married woman while sewing at the machine in her house, was suddenly struck in the eye by a flying piece of broken needle. She was seen by Dr. S., who immediately referred her to me. On examination the cornea was seen to have

a small wound in the inferior nasal quadrant. With the indirect illumination a small piece of bright steel, the size of the head of a pin, was seen lying upon the iris in the median line, midway between the pupil and circumference. A fresh incision of the cornea was made a quarter of an inch away and a small magnet was tried in vain. The large Johnson magnet was then employed through the new incision and slowly 3-8ths of an inch of broken needle was extracted. Hot salt water and atropin were thoroughly used. The lens was, of course, cataractous, but the eye came to a state of rest and has remained so and the promise is that this cataract may be removed and the patient have good sight. The needle was extracted along the site of entrance without injury to retina or ciliary body.

As to the magnet, Marple (*Med. Rec.*, June 25, '04) says, "an eye in which a piece of steel or iron is buried invariably deteriorates and ultimately becomes blind unless the steel is completely encapsulated." The word invariably is not exact as there are exceptions, but they are few and rare. "If the foreign body is in the anterior segment of the eye the Haab (or similar) magnet is universally used. If the foreign body is in the posterior part of the globe, localization should be made with the sideroscope or X-ray before attempt at removal either through the sclera or anterior chamber. If the symptom of pain cannot be elicited with the Haab magnet (a) there is no foreign body, or (b) it is encapsulated; in recent cases, in fibro-purulent exudation or blood clot, or in less recent cases it is firmly encapsulated; or (c) it has passed entirely through the globe."

Injuries of the eye and of the adnexa occur everywhere but most frequently where there are factories and machine shops. These accidents are brought to the attention of the general practitioner and it behooves him to be prepared to give the best advice in the premises and secondly, to be able to state in a medico-legal way, the cause, nature and consequences in such a case. The eye may be the seat of congenital anomalies or of previously acquired lesion. This lesion may have been known or unknown to its possessor. Simulation and fraud on the part of an individual may be the cause of miscarriage of justice, as, for instance, in the following case. XY, a survivor of a railroad accident in which a number of persons were killed and drowned, obtained \$11,000 damages because of a blind eye. I declined to attend the case, because I knew this eye was blind before the accident. An oculist from New York, a most estimable man, gave his evidence, that there was hopeless atrophy of the optic nerve of one eye. The claimant must have sworn it was due to this accident.

As to the method of examining an injured eye, a speculum in certain cases, is absolutely necessary; and by the aid of indirect light, concentrated by means of a lens held in the fingers, in a dark room, the shining surface of the cornea and its transparency may be accurately determined. A few drops of a one per cent. cocaine solution instilled between the lids will materially assist. Apparently insignificant injuries are sometimes followed by most disastrous results due to delayed or injudicious treatment. A few drops of adrenalin (1-1000) will bleach a superficial inflammation, but have no effect upon a deep congestion; but is valuable in diagnosis.

In many cases of wound or contusion of brow or lid, perhaps involving fracture of the orbital

bones, a very good result is obtained with thorough cleansing and coapting the parts, using stitches or plaster. It is well to remember, however, that retrobulbar neuritis has followed a direct as well as indirect fracture of the optic canal. Intraocular lesions occur from trauma, hemorrhages, retinal detachment, rupture of the choroid, effusions into the vitreous and atrophy of the optic nerve. Visual defects sometimes occur which are only temporary. Callan, of New York, has recorded nine cases of loss of vision from fracture of optic bones. Authorities differ as to the best way of removing steel or iron from the vitreous, but all agree that the magnet is the one instrument for this accident. The object of treatment is to save useful vision and, if this is impossible, to save the eye-ball. The result is often greatly influenced by a constitutional ailment such as syphilis, tuberculosis, diabetes, ague or general debility.

In all the cases cited in this paper mention of atropin has been made. Atropin contracts blood vessels and paralyzes the sphincter of the pupil, putting the eye in a state of complete physiological rest. A grain to the ounce solution is dropped between the lids. It is absorbed through the cornea and conjunctiva and the effect appears in a few minutes and lasts a variable time. In a normal eye the dilation may not disappear for two weeks. It acts on the peripheral ends of the nerves, paralyzing the filaments of the oculo-motor and stimulating those of the sympathetic (?). There are many things to be said about the constitutional and local effects of atropin which must necessarily be excluded from this paper for lack of time. Suffice to say that the delirium and rapid heart are symptoms which appear in cases with idiosyncrasy against belladonna and should never be forgotten. It is on record that a patient under the influence of atropin has jumped out of a third story window. So, it behooves one to have a care in beginning the use of atropin on a new patient. Another important point is that atropin in dilating the pupil, closes up the canal of Schlem and thus inhibits excretion from the vitreous into the anterior chamber and if there be any tendency to glaucoma, it is immediately intensified and actual glaucoma occurs. You can readily diagnose this by the cries of the patient on account of the increased pain and photophobia. The eye runs, and the patient sees the halo of glaucoma. In such a case, at once use pilocarpin or eserine instilled into the eye, and ice cloths. Another point is that after a while, in some cases, atropin instead of doing good, becomes actively harmful.

Eserine sulphate (an alkaloid of calabar bean) is a myotic of great value in cases of threatening glaucoma and is sometimes valuable in iritis. It seems to contract blood vessels and lower intraocular pressure. Pilocarpin muriate acts similarly and in addition, has an alterative and absorbent action, favorable in episcleritis, choroiditis and for clearing up vitreous opacities. It causes sweating, salivation and lachrymation.

Scrupulous cleanliness is necessary in the surgeon's hands and instruments. A 1-8000 bichloride solution is as strong as should be used about the eye. Sterile water and boiled instruments are safe. Lead lotions are apt to leave as sequelae, insoluble precipitates in corneal tissue forming white opacities. Good hygiene, rest of eyes, avoidance of bright light, wind, dust and smoke are indicated. The protective compress is often indispensable and later on goggles of brown or am-

ber glass, leeches, cold applications of cloths two inches square spread on ice and changed as often as necessary. Dry cold by the ice bag is generally uncomfortably heavy. Cocaine, one per cent. solution is often of great value in relieving pain, but it should not be forgotten that the superficial layers of the cornea become soggy and less resistant under its continued use and ulceration may be a sequel. As to exclusion of light in a given case, it is well to remember that the more light and fresh air a sick person has, the better for health. The laity generally tend to too much exclusion of light.

## News from the County Societies.

### REGULAR MEETING OF THE CAMDEN COUNTY MEDICAL SOCIETY.

October 11th, 1904.

Reported by E. B. SHARP, M. D., Reporter,  
Camden, N. J.

The meeting was called to order at 12 M. by the President, Dr. Joseph Wills. The attendance was large and a goodly number of delegates from kindred societies were present. These were introduced to the Society and the courtesies of the same extended to them. The following sections reported:

1. **Sanitary Science.** Dr. Marcus K. Mines, Chairman. Mr. Henry B. Francis, Inspector, had a paper on "Sanitary House Plumbing and Drainage." In this the author emphasized the necessity of having competent men to do scientific work. To attain this, all applicants should be examined by an examining board, which should consist of members of the local board of health and the plumbing and drainage inspector. The various points specialized were, (1) A proper quantity and use of water for flushing the fixtures. (2) Local cleanliness, a uniform grade in laying the drainage pipes, (the size of which should not be less than four or five inches) as any irregularity in the grade will lessen the velocity of the flow and cause obstructions. If terra cotta is used, the irregular pressure will cause leakage at the joints, and if iron, in time complete obstruction will occur through oxidation assisted by gases generated within the sewer and soil pipes. The use of terra cotta was condemned for all inside purposes. All vertical soil pipes should extend to proper heights above roofs to secure vent and to prevent siphonage sufficient to unseal the traps. If a vertical soil pipe is large enough (five inches or more) and the water closet of siphon pattern, with four or five inch water seal, there will be no need of the so-called anti-siphon or vent pipe. The reason for this is, that as the water descends in a pipe so large the suction (from centrifugal action of water in descending) is reduced to a minimum, hence cannot empty the trap. The author has known the water from the urinal to contaminate the drinking water supply (certainly a menace to health) and in cited cases proved a prolific source in the propagation of contagious diseases. Leaks are determined by aid of oil of peppermint and permanganate of potash. In rural districts where cesspools are used,



they should be two in number, about ten feet apart, connected by a pipe, and when possible, placed at the foot of a hill two hundred feet or more from all buildings and from the water supply. The first one should be tight, the second one loose to allow the fluid as it flows into it, to percolate into the soil. Manholes for ventilation and cleansing purposes are needful. The author claims to have known all foul odor arising from such cesspools to be entirely absorbed (?) by pine shrubbery planted about them for the purpose primarily of beautifying them.

**The Section on Obstetrics.** Dr. William W. Kain, chairman. Dr. William Krusen, Philadelphia, read a paper on "The Toxemia of Pregnancy; the Prophylaxis and Treatment of Eclampsia."

The author defined the toxemia of pregnancy as a condition differing from uremia because of the fact that often the kidneys are uninvolved. The toxemia may be of maternal origin, of foetal origin, or may originate from both, due in the main to defective elimination of ordinary toxic substances, or possibly due to a specific toxic substance, of as yet, an unknown composition, secreted by the pregnant woman. One of the principle factors, conducting to a specially toxic condition of the blood is believed to be a retention of the menstrual blood producing menorrhemia. The symptoms of toxemia vary in degree from a mild headache to acute mania and convulsions.

The four conditions of toxemia, uremia, albuminuria and eclampsia come in close contact without an approach to identity; as eclampsia may occur without albuminuria or any visible changes in the kidneys. Uremia may occur without convulsions, and albumin may be present in the urine in large quantities without evidences of ill health; but since the auto-intoxication of pregnancy often becomes the prodromal period of eclampsia, emphasis was laid upon the treatment of this condition.

From numerous authors quoted, from personal experience, and from the experience of those present who commented upon the paper the mortality of eclampsia in America is about 30 per cent., while some of the continental authors give a smaller per cent. Stroganoff particularly was quoted as reporting fifty-eight cases with no maternal mortality.

After briefly reviewing the various theories of the causation of eclampsia, the treatment outlined was (1) prophylactic (2) treatment of the convulsions (3) treatment during the intervals (4) after treatment. Since the exact causation of eclampsia is unknown, the treatment is largely empirical and symptomatic. Accepting the theory of toxemia as the predisposing, if not the exciting cause, prophylaxis is largely that of assisting the excretory organs to active work. Bouchard, of Paris, and Davis, of Philadelphia, found that when the secretion of urea fell to 1.5 per cent., stimulation of the excretory processes produced favorable results. This can best be obtained by restriction of nitrogenous foods and exclusive milk diet, other foods to be allowed as improvement occurs. Stimulation of the liver and intestinal tract—For this calomel 6 mg. (gr. 1-10) may be used safely three times daily for one or two weeks. Bashams mixture, large draughts of water, if there be deficient urination. If high arterial

tension is present, nitro-glycerin, gentle massage and hot baths, once or twice each week.

Nicholson, of Edinburgh, was quoted as having called attention to the relationship of the thyroid gland to eclampsia as seen in its bearing upon the pre-eclamptic symptoms. He has apparently proved that there is an intimate connection between inadequate function of the thyroid gland with a consequent diminished supply of iodothyron and the mechanism which arrests the renal secretion. It has been noted that under the administration of iodothyron there is a great increase in the metabolic processes of the body, and an increased secretion of urine. That iodothyron must be manufactured continuously and supplied in larger quantities during pregnancy, and under such circumstances a physiological hypertrophy of the glands should occur. He has treated patients in the pre-eclamptic state with satisfactory results, and advises giving thyroid extract .32 grm. (5 gr.) twice and after a few days, thrice daily. Dietetic and hygienic care to be exercised also. The use of saline solution by transfusion or by enteroclysis in the pre-eclamptic state is to be emphasized. Recently solutions of iodide of potash have been advocated for transfusion or enteroclysis, and it is probable that the iodine thus received would stimulate the elaboration of iodothyron. The author believes that upon the thorough investigation of the relationship between the thyroid gland and pregnancy depends much of our future success in the prophylaxis of eclampsia.

**Treatment of Convulsions.** For immediate control of the convulsions chloroform is the remedy *par excellence*.

Stroganoff considers chloroform ineffectual and injurious and recommends oxygen alone, as of more value. The author considers oxygen to be desirable between attacks, but chloroform is the remedy for controlling attacks. Ice bags to back of head and neck are very useful.

**Treatment during Interval.** In appropriate cases, those with full pulse and cyanotic appearance, bleeding is the most essential procedure; the author recommends abstracting 20-30 oz. of blood and injecting saline solutions and repeating the bleeding and injections in cases demanding it. Jardin employs one part bi-carbonate of potash to three parts of chloride of sodium, using four grams (1 drachm) to one pint of sterile water, at 100 degrees F., rather than simple salt solution. Free purgation, magnesium sulphate, glycerine and water by high enema for immediate results. Croton oil, a drop or two as recommended by Garrigues. The wet pack is to be used intelligently if there is anasarca. Morphia in  $\frac{1}{4}$  grain to  $\frac{1}{2}$  grain doses is a useful remedy, repeated as needed.

Because the eclamptic seizures cease in the majority of cases after the uterus is empty, it is desirable to empty it as rapidly as possible. An effectual treatment in this respect means almost certain death of the fetus and a 30 per cent. mortality of the mothers. The after treatment consists in caring for a woman who is very prone to infection.

In the discussion following, in which a goodly number participated, the above suggestions were accepted and recommended as producing

the most favorable results. Existing nephritis was accepted as a factor in many cases in the production of eclampsia.

**The Section on Pathology**, Dr. Frank M. Wood, chairman. Dr. Alfred Stengel, of Philadelphia, read a paper on "Diagnosis from a Pathological Point of View." In this paper the author emphasized the importance of a correct knowledge of the pathological conditions as a requisite in diagnosis. All pathological conditions come in sequence; as vascular and nervous pathological conditions are results of infection, and to a certain extent of faulty metabolism.

The beneficence of pathological laboratory methods is shown in the diagnosis of diphtheria and tuberculosis, and in the serum diagnosis of typhoid fever.

Of late forms of cells have been studied as those found in pleurisy, meningitis, etc., differing from those which are malignant in nature.

Dr. Halsey was present and reported on the national incorporation of the American Medical Association, presenting a petition to be signed, soliciting Congress to grant such a favor.

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#### OCEAN COUNTY MEDICAL SOCIETY.

The Ocean County Medical Society held its semi-annual meeting at the office of Dr. C. L. Lindley, in Lakewood, on November 4th. Five of the twelve members were present and after transacting the routine business, spent an hour in discussing interesting cases, and recent methods.

W. G. SCHAUFFLER, M. D.,  
*Reporter.*

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#### HUNTERDON COUNTY MEDICAL SOCIETY MEETING AT FLEMINGTON, N. J.

The Hunterdon County Medical Society convened in regular semi-annual session on Tuesday morning, October 25th, 1904, at 10.30, and had, as usual, a very good representation of its membership present. The committee appointed to alter the present by-laws to conform with the reorganization plan of the State and American Medical Societies, presented the results of their work. These were adopted by a unanimous vote and the change from one organization to the other was accomplished with very little delay and no inconvenience.

Dr. William H. Clark, of Trenton, was present in the capacity of Judicial Councillor of this district and complimented the society upon their scientific work and the ethical accord which he found prevailing. A revival of the interest in the work of the sections was one of the characteristics of this meeting; there being a hearty response on the part of the chairmen to the request to prepare and read reports in their respective branches. Dr. Peter C. Young, of Ringoes, reported five cases of erysipelatous cellulitis involving the face and scalp; and the subject was entered into by members who had experience, good and bad, with similar cases. Dr. E. W. Closson, of Lambertville, reported three cases of obstetrics, which also provoked a free discussion. Under the head of pathology, Dr. Romine, of Lambertville, reported a case of adenoids in a child three months old having had symptoms of a

coryza. He suggested this as a possible cause for so many of the cases of crying infants who are unable to nurse satisfactorily and are consequently illy nourished. The essay of the day was prepared by Dr. Leever and was a well written and carefully prepared paper on the subject of influenza. Dr. Leever's records of the history of the epidemics of this disease were elaborate, as was the description of the cause, the symptoms, the pathology, the diagnosis and the treatment of the disease. He received a hearty commendation from the society for his paper. The society then adjourned and a banquet was served at the Union House.

LEON T. SALMON, M. D.,  
*Reporter.*

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### Hospital Alumni Society Reports.

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#### THE SOCIETY OF ALUMNI OF BELLEVUE HOSPITAL.

*Regular meeting, November 2nd, 1904, at  
the Yale Club, New York City.*

DR. WILLIAM J. CHANDLER, SOUTH  
ORANGE, N. J., PRESIDENT,  
IN THE CHAIR.

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#### IMPETIGO CONTAGIOSA.

BY GEORGE W. CRARY, M. D.,  
NEW YORK CITY.

The disease of the skin which W. Tilbury Fox, first described as a separate malady under its, now generally accepted, name of impetigo contagiosa in 1862 (21) has passed through the confusion of tongues and false identifications, inseparable perhaps from progressive medicine, but to which dermatological science has seemed to be especially prone. Willan in 1809 (1), under the name pompholyx benignus, described impetigo contagiosa as a sequela of vaccination. Friese (2) in his translation of this work, pointed out the error of this assumption and gave reasons for his criticism, which, as far as they go, hold good today. (4).

The term impetigo has long been used in dermatological nomenclature, but with widely different significations. Since the time of v. Hebra however, it has been used as a qualifying term indicating a pustular form of disease (12). By impetigo contagiosa is now to be understood the disease described and christened by W. Tilbury Fox. To this name have been added from time to time, various appendages to express some observed modification or striking peculiarity in the



clinical picture presented. Thus we have impetigo contagiosa bullosa (13), where the vesicles in that stage of the disease, are of unusually large size; impetigo contagiosa gyrata; impetigo contagiosa circinnata; etc., etc. Such descriptive terms would seem better employed in the text than in the title. Secondly, there is a nomenclature indicating that there are other forms of impetigo than impetigo contagiosa, viz.: impetigo of Bockhart, which is a pustular folliculitis, and were better so called: Impetigo syphilitica Crocker (3), Stelwagon (5), Kaposi (15), Neuman (16), and many others which were better classified as a pustular syphiloderm. Impetigo of Dühring, which is but a form of impetigo contagiosa simulating in some degree pustular folliculitis (3): Impetigo baccillogenes (17), more commonly known as a pustular acne: while impetigo fibrinosa, streptognes, staphylogenes, vulgaris are but varieties of impetigo contagiosa; impetigo hyphogen is a variety of trichophytosis; and so on *ad infinitum*. Impetigo herpeticiformis must, for the present at least, be individualized as the name of a separate disease, having usually a fatal termination, but fortunately of very rare occurrence. It is to be noted also that most of the cases hitherto reported as acute contagious pemphigus, usually in epidemics, have been examples of impetigo contagiosa. If we then with gentle hand clear away some of the driftwood of nomenclature and abandon the attempt to give a full description of the disease in its name, we may proceed as follows.

Impetigo contagiosa is a disease of the superficial layers of the skin which manifests itself by, at first, vesicles from a pin-head to 1 or 2 mm. in size, which later increase to 5 or 6 mm. in diameter and become flaccid, flattened, whitish-appearing and umbilicated. These vesicles or bullae are surrounded by either perfectly normal appearing skin, or at most by a very narrow reddened border (4), and are hence said to exist upon a normal skin. The vesicles at the very first arise somewhat abruptly above the general level of the skin and are quite tense, but this feature is of short duration, and they soon become flattened and flaccid as before mentioned. Crocker (3) states that the presence or absence of an areola of hyperemia is a question merely of accidental irritation, and Jessner (16) holds the same opinion. In support of this theory Crocker (3) also states that the areola is absent in face lesions but present upon the

extremities. This latter statement is not consistent with my own experience in some 300 cases, nor is it supported by cases pictured by Jacobi-Pringle (9), Matzenauer (4), Kaposi (10), and others.

Inoculation experiments carried on by Matzenauer (4) have given fifteen to sixteen days as the time required for the characteristic development of this stage of the eruption, after which the vesicles and bullae, after becoming cloudy and sero-purulent, quickly dry up, and superficial crusts are formed which may have a bright yellow color, or present more of a brownish appearance. In the large vesicles (bullae), the crust formation commences in the center, and then we have a very characteristic appearance; a central watch-glass-shaped brownish crust appearing to depress the center of a loosely raised area of whitened, macerated, horny layer. This water-soaked appearance of that portion of the horny layer of the skin which overlies the exuded serum, and forms the tops of the bullae, is very striking and characteristic of the disease. It is in fact water-soaked or serum-soaked, is soggy and easily ruptured. The constant occurrence of a vesicular stage to this disease was maintained by Sabouroud and others, but it has been denied by Crocker, through Stelwagon says its absence is exceptional. It most probably is and its presence the rule. These vesicles endure for only a short time, changing into pustules. The duration of the vesicular stage is therefore, very short; a day, or at most three days. (Metzenauer) (4). The contents of the bullae is never thick pus, but only cloudy serum. After the appearance of the first lesion, new areas of the disease arise by auto-inoculation; immediate, in the near vicinity, or intermediate, upon more distant portions of the body surface. The description of the crusts as "stuck on" used originally by R. W. Dunn, in 1863, who described this disease under the title porrigo (19) has proved so apt that it has been used pretty continuously ever since. As would be inferred from the superficial nature of the disease, the crusts are easily removed, when the rete will be exposed to view, denuded in part or wholly or its horny layer; its surface will therefore appear reddened, slightly moist, and abraded looking. It has much the appearance of an old abrasion of the skin of a cadaver. According to Stelwagon (5) in the course of a few days or a week new foci cease to form and the malady ends. In cases untreated or improperly





FIG. 1.\*

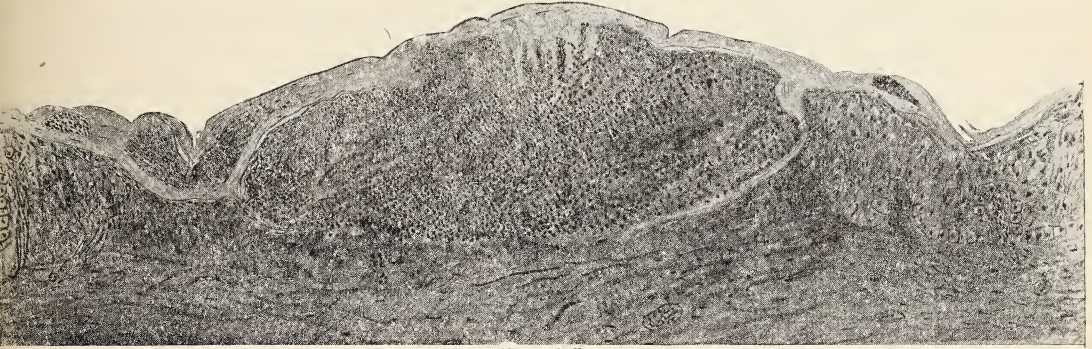


FIG. 2.\*

treated the very gradual nature of this ending is rather striking. In 158 of the cases observed at the Cornell Medical College Dispensary, in which reliable statements could be obtained from the patient, the disease had already existed for fourteen days. The superficial nature of the lesion (well shown in the accompanying drawings) (‡) is again evinced by the perfect restoration of the skin to normal conditions, there being left behind no scarring. Occasionally, especially in brunettes, there will remain a temporary pigmentation at the site of the former lesion; but this in turn shortly disappears. There are no subjective symptoms associated with this disease; and, as a rule, no constitutional disturbance, but occasionally, and more often in epidemic than in sporadic cases, there will occur symptoms of mild septic intoxication, and more rarely still, this septic poisoning may be so severe as to cause death (24-25). In many of the cases the lymph nodes associated with the area involved become enlarged and sometimes painful. The lesions themselves neither pain nor itch.

The disease may attack any portion of the muco-cutaneous surface of the body accessible to the finger nails; but the skin at the sides and bases of the nails and that about

the mouth are its favorite localizations. It may attack persons of any age or either sex, but is much more common in young children than in adults. In 269 consecutive cases seen at the Cornell Medical College Dispensary, 61 were above ten years and under twenty years, twenty above twenty and under thirty, eight were above thirty and under forty years of age, and four only were over forty. The limit of age in these cases was forty-five, at which there were three; all men.

The disease is contagious and is transmitted directly from person to person; and indirectly by means of communal toilet articles; so that it may take on an epidemic form, especially in institutions. During the past year, in one of the large maternity hospitals of the city, I brought an epidemic of impetigo contagiosa, which had come to involve most of the twenty or thirty infants in one ward, with more or less extensive lesions, to an abrupt ending by substituting individual cotton swabs for the communal washcloth, and a mildly alkiline for a strongly alkaline soap. In this connection it is interesting to note that Barendt (22) under exciting causes, says that the action upon the epidermis is aggravated by the overuse of soap and water and mechanical friction. Since these changes were made we have had almost no cases, except an occasional one brought into the hospital already suffering from the disease.

That the disease impetigo contagiosa, is

\* Original drawings from a specimen obtained from the laboratory of the Cornell Medical College through the courtesy of Dr. J. C. Johnston, to whom for this and for many other favors, I would express myself as most sincerely grateful.

‡ I am indebted to Professor George T. Elliot for permission to use the records.



produced by one of the pus-producing organisms is generally recognized, but there is not the same unanimity of opinion regarding which organism is mainly responsible. Bacteriological investigation of the skin is proverbially confusing because of the number of organisms found even in healthy skins. And for this reason a classification of impetigo contagiosa upon bacteriological findings is both unreliable and unsatisfactory. Johnston (8) probably expresses the prevailing opinion: "the staphylococcus albus and aureus are the chief offenders. Unna says they have peculiar cultural characters in this condition and doubtless they have; for the infection is always mild. The streptococcus may be causative in the beginning of certain lesions and disappear before other pus-cocci later." Investigations by Matzenauer (4), Adamson (6), Gottheil (23), and others, in general support this view.

In a recent case of my own, pure cultures of staphylococcus pyogenes aureus were found.

In his histological investigations, Matzenauer (4) does not confirm Unna's contention that the disease begins by infection within the hair follicle, but claims the disease to be superficial from its inception. My own investigations, though not so thorough, would serve to substantiate this claim. The top of the vesicle or bulla is formed solely by the horny layer of the skin, but as in the specimen shown, at times certainly, the whole thickness of the horny layer is not raised, the vesicles then lying entirely within this layer. In such cases, the base of the vesicle will be covered by a portion of the stratum corneum and otherwise the rete itself will form the bases of the blisters. This latter condition is well shown in Matzenauer's drawings, but in my own the rete underlying the vesicles will be found to be in part or even wholly lacking. Where this obliteration of the rete has not occurred, its cells will be seen to have undergone a marked degree of hydropic degeneration. This dropsy is confined to the upper layers of the rete. My own specimen shows no great amount of vessel dilatation, but Matzenauer claims marked dilatation not only in the papillary bodies but also in the cutis itself. But even so the evidences of disease both clinical and histological are extremely superficial.

Impetigo contagiosa is thus seen to be a contagious disease of the skin of a very mild character, liable to occur in epidemics. These epidemics are easily controlled,

though in many instances this has been accomplished only after much vexation of spirit. It being one of the diseases which bars a child from attending the public schools in Greater New York lends to the disease an additional interest.

The treatment of the disease is extremely simple. Gottheil (23) recommends a 3% salicylic acid oil to remove the crusts, after which a 2-3% ammoniated mercury ointment acts as a specific. Most of the cases apply for treatment after the disease has reached the crusting stage. I have found the ammoniated mercury ointment to be indeed a specific, but use it in its official strength of 10%. I never have seen any irritation following its use. Nor have I found it necessary to use another preparation for the preliminary removal of the crusts. In the vesicular stage of the disease a bactericidal wash is preferable to an ointment, and solutions of resorcin in dilute alcohol or alcoholic solutions of oleum rusci or oleum cadini will be found useful.

The skin of young children being extremely sensitive to irritants, great care must be employed in the treatment, and in infants, with whose skin reactions to remedies I am unfamiliar, I am in the habit of using a diluted calomel and zinc lotion in the vesicular stage of the disease.

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## DISCUSSION ON DR. CRARY'S PAPER.

Dr. Bronson, in opening the discussion said that he had been greatly interested in the paper read, especially in that part relating to the pathology of impetigo contagiosa. Just what this disease was, had never been very precisely determined.

The term impetigo was a venerable one and had been employed at different periods in different senses. It was used by Celsus for a great variety of skin affections; most of them in no way related to those designated by it now. It was not until Willan's time that it came to signify superficial pustular affections, called phylzaceous pustules in contradistinction to the more deeply seated or phlegmonous lesions.

According to Hebra, impetigo was not an independent form of disease. It was only a suppurative form of eczema—a view, however no longer entertained. While eczema (in its typical form at least) is a diffuse disease of the skin, chronic in its course and dependent on some special predisposition of the skin, due either to inherent defect or to pathological factors interior to the skin; impetigo, on the other hand, is essentially a local disease, generally due to direct contagion and runs an acute and limited course. This is true at least, of simple or common impetigo. It is always more or less contagious, *i. e.*, inoculable.

The distinction between this and what Tilbury Fox called impetigo contagiosa is not very sharply defined. It has been stated that while the former is due to staphylococci, streptococci are the causes of the latter. But this distinction lacks complete verification. So far as clinical appearances are concerned, many cases of impetigo, which can be directly traced to some local infective source such as may arise in the scalp from pediculi, or elsewhere from suppurative discharges from the mucous orifices, cannot be distinguished from Fox's disease. They are equally contagious, spread often through a family, or a household and doubtless might spread through a community. The degree of contagion differs in different cases; but almost always the contagious element is communicated directly and often by the finger nails. In the worst cases where the contagious feature is most pronounced, instead of the ordinary small pustules large blebs are formed. In such cases the serous effusion predominates over the purulent. The lesions have the *serotaktisch* rather than the *leucotaktisch* quality—to use the German distinction. In some of these cases it is quite possible that the cutaneous infection proceeds from within; that it represents a systemic infection.

Tilbury Fox described impetigo contagiosa as beginning with prodromal general symptoms, with fever, malaise, etc. Certainly in most of the simple cases no such phenomena are observed. Nevertheless, from analogy it is easy to surmise that such a disease may exist. The impetigo herpetiformis to which Dr. Crary has alluded is doubtless of such a nature. The so-called pemphigus neonatorum that occurs in epidemics of a fatal character may also be analogous. But these are extraordinary cases. Certainly in the great majority of instances of what is commonly denominated impetigo contagiosa the disease is purely a local one and has nothing to do with a systemic infection.

The treatment is usually very simple. Cleanliness, with thorough disinfection will readily ef-

fect a cure. The disinfectants which the speaker had found most efficacious were (after removing the crusts or opening the pustule) peroxide of hydrogen permanganate of potassa in weak solution, argyrol and nosophen. In some of the more deeply seated cases, especially those described by Bockhart, and more particularly when affecting the hairy scalp, the treatment was more difficult, requiring more assiduous and prolonged attention, and a more thorough evacuation and disinfection of the lesions.

Dr. Chandler stated that the subject was one of great interest to the majority of physicians in general practice. His great difficulty had been in making the diagnosis in a single isolated case from the skin lesion alone. After several cases had occurred in a family or in a school, one's suspicions were aroused and the affection was generally pronounced "impetigo contagiosa." He would like to ask Dr. Crary, in closing the discussion, to state whether it is always possible to make a positive diagnosis in an individual case from the physical characteristics of the skin lesions.

Dr. Crary, (closing) I wish to thank Dr. Bronson for his very able discussion of this whole subject. I, of course, agree with him that every disease of the skin due to any of the pus-cocci is contagious, and that the contagiousness of impetigo contagiosa does not constitute a peculiarity. I but make a plea for the recognition of impetigo contagiosa, having the characteristics I have described, and with especial emphasis laid upon its extremely superficial nature, as an entity, a separate and distinct disease, of which one may speak by name with perfect confidence of conveying a definite mental impression. As to the question of diagnosis, asked by our president, Doctor Chandler, I would say that in this disease, and especially in the crusting stage, the rule of practice of the Vienna clinics, never to attempt a diagnosis under a crust, has especial applicability.

## HARMFUL EFFECTS OF GAUZE IN SURGICAL WORK.

BY ROBERT T. MORRIS, M. D.  
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Absorbent gauze is in common use everywhere in the world to-day, as a wound dressing. Its greatest value depends upon its capillarity which draws culture media away from tissues undergoing repair. A great amount of harm is caused by allowing the gauze to come directly into contact with such tissues. The reason why it causes harm is because new and delicate cell structures are damaged by such contact. When new epithelium is shooting across an open wound, the transparent hyaline borders need our most painstaking care for their protection. Lister first showed us the necessity for introducing a protective medium between healing surfaces and an absorbent dressing, and his oiled silk came into gener-



al employment. This silk was expensive, and when gutta percha was adopted as a cheaper substitute the idea of using a protective received a setback because the gutta percha tissue was impervious to moisture, and wound surfaces became sodden or macerated beneath it. When gutta percha tissue was being discarded there was a tendency to forget about protective dressings, and gauze was often placed directly in contact with wounds. This tendency was corrected in part by the effort made at Johns Hopkins and elsewhere to have silver foil adopted for a protective dressing; and some of us more lately have urged the adoption of sterilized peritoneum for this purpose. Silver foil and sterilized peritoneum of the ox are rather expensive, and consequently wounds are still being damaged in many quarters by direct application of absorbent dressings.

Griffith has recently found that shark's peritoneum can be obtained in large quantities and very cheaply, so that in another year we may have this protective furnished us by manufacturers at a price which will make us think it is well to do the best thing for patients who put trust in us.

While absorbent dressings are most harmful when placed in contact with surfaces undergoing epithelial repair, a good deal of damage is caused to granulation-surfaces at any point. Granulation tissue becomes enmeshed in the fabric, and is bruised and torn when dressings are changed. Repair is thus delayed, and the resulting scar is hard and firm from excess of connective tissue.

Gauze is used with harmful effect in the peritoneal cavity. Following the line of development of the peritoneal drainage idea, surgeons got into the habit of using gauze packing, or masses of loose gauze, in septic peritoneal work. Gauze in the peritoneal cavity is a foreign body. And as such it causes a secretion of large amounts of protective lymph. This lymph becoming organized leaves an excessive amount of adhesion tissue to be disposed of later if the patient lives. Gauze placed between folds of bowel becomes adherent promptly, in a few minutes, and by arresting peristalsis often causes the development of bowel obstruction and ileus. Gauze in large quantities in the peritoneal cavity causes shock by its mere presence; and when the dressing is removed damage results in many cases from the effect of tearing it away from adherent tissues.

Is the use of gauze in the peritoneal cav-

ity desirable, in view of our later knowledge concerning the physiology of the peritoneum? Dawbarn poured milk into the peritoneal cavity of a cadaver, and then tried to wash and wipe it all out. His conclusions were that we must leave a good deal of septic fluid in some cases of peritonitis, no matter how thoroughly we try to get it out, and yet such patients recover. A surgeon operating upon such a case may prick his finger slightly, and be dead in a week, while the patient recovers. What lesson are we to learn from the fact that patients recover when a great deal of septic fluid has been left in the peritoneal cavity, and that the operator dies from a little prick of the finger? Simply this; that the patient has developed all of the resistance factors against infection, chiefly hyperleucocytosis, while the surgeon was not ready to meet a colony of bacteria that were in a stage of rapid proliferation.

Given a patient who is protected by the natural resistance that has been called out, is it necessary to shock and injure that patient by conscientiously introducing into the peritoneal cavity a mass of gauze guided by our ideas of former times? The peritoneum can cleanse itself better than the surgeon can do it, in many cases, if the patient is left uninjured by the surgeon. Some of us have gone so far as to close the peritoneal cavity completely after turning out a septic appendix, or ovi-duct, or gall bladder, and quickly disposing of the septic fluid which happened to be right at hand. A remarkable series of statistics have lately been furnished from this sort of treatment, but personally I have gone back to the idea of using a little drainage, consisting of the small drainage wick surrounded by gutta percha tissue. It does not leave much of a weak spot in the abdominal wall, and it disposes of enough culture medium to relieve the peritoneum a good deal. I do not use gauze packing now at all, or masses of gauze, for drainage purposes. I would not advise the sudden dropping of this method however, on the part of surgeons who have become accustomed to it. The method should first be discontinued in a class of patients that one can afford to lose, and then one gradually becomes accustomed to the surprise that these are the ones that he is saving most easily.

Some of the older men who are present this evening remember when opening the peritoneal cavity was considered to be a dangerous undertaking; but our younger

assistants who are up-to-date, have not heard about it. We had to learn that the peritoneum and the skin could be cut with about the same degree of safety. The next great fear which spread a shadow over the surgeon's life was the fear that he could not get septic fluids all out of the peritoneal cavity, and it was in this most praiseworthy endeavor that we developed the use of gauze packing, which left the abdominal wall open for subsequent ventral hernia, and which caused shock and adhesion formation along with its beneficial action. A later generation of young surgeons will not know that gauze was once used in this way.

616 Madison Ave.

### DISCUSSION ON DR. MORRIS'S PAPER.

**Dr. W. R. Townsend** stated that his experience with gauze as a drain led him to believe that the general tendency was to pack the wounds too tightly. Most members of the house staff seemed to think that the more gauze they packed into a sinus the better would be the drainage. In reality no drainage was possible under such circumstances. The difficulty of removing gauze from granulating surfaces without causing bleeding had led to the use of balsam and oil or similar substances in tuberculous cases, but even then much damage was done to the new granulations each time the wound was dressed. Another method to lessen damage was infrequent dressings, but this was not always satisfactory. The use of drains in recent wounds was generally unnecessary and injurious. Clean and dry surfaces, properly approximated would heal better without gauze drains.

**Dr. Quimby.**—As bearing on what Dr. Morris has said about the capacity of the peritoneum to handle septic matter, this case may not be without interest. It was one of psoas abscess. When first seen there had been a discharge of pus from an opening in the groin for over two months. The previous attendant had allowed this opening to remain small and had produced by packing with gauze, a large, apparently walled-off cavity in the pelvis, from which I drew a mass of soggy gauze as large as the two fists. The primary source of suppuration was found at the distance of sixteen inches from the point of discharge, in an eroded point on a transverse process. During an operation undertaken for the purpose of passing a drainage tube through the suppurating cavity from the groin to an opening made in the back, there was a rupture of the weakened peritoneum and a coil of uncovered intestine appeared in the opening at the groin. The best of surgical authority on seeing the case, gave an absolutely hopeless prognosis and forbade any efforts to replace the gut. It was, therefore, simply dusted with iodoform, covered with a pad of cotton and left to itself. Within a year the patient resumed his duties as instructor in rowing at the N. Y. Athletic Club.

The exposed gut had been covered over and drawn back by Nature's own methods, and the protrusion of uncovered intestine into the abscess cavity had not been followed by general infection.

**Dr. Chandler** stated that the paper of Dr. Morris reminded him of an observation made many years ago. He assisted a colleague in the care of a fracture at the ankle joint. His colleague packed the wound, which was quite deep, with cotton and lint and made his dressings on every second day. On the alternate days Dr. C. dressed the wound and always found the granulations growing up into the cotton and lint. The dressing was firmly adherent and removal was tedious and painful. He finally resorted to the use of emollients and cerates spread on sheet lint and applied directly to the wound. These dressings were easily removed, while those of his colleague, who still for a time persisted in the former mode of dressing, were adherent and seemed to retard the healing of the wound. The cerates were finally used in all dressings and the wound healed rapidly.

However, he was not quite prepared to discard gauze drains in the peritoneal cavity. If these drains are changed early (second day) they are found quite adherent and their removal tears out the protective adhesions and gives much pain.

He had tried Dr. Morris's plan of closing the peritoneal cavity in pus cases without any drain and he did not feel satisfied with his results. He, therefore, in pus cases, partially closed the wound and put in a cigarette drain or strands of silkworm gut. If the case did well, this drain was removed on the second or third day and the wound entirely closed by a provisional suture, which had been purposely inserted at the time of the operation.

The New Jersey Sanitary Association will hold its thirtieth annual meeting, at the Laurel House in Lakewood, December 9th and 10th. The president, M. N. Baker, will address the association on the subject of "Municipal Sanitation in Great Britain."

The following gentlemen will read papers:

On Malaria, Drs. D. E. English, Millburn; J. T. Wyckoff, Leonia; George McLaughlin, Jersey City, and S. E. Armstrong, Rutherford.

Oysters and Clams as Vehicles for the Transmission of Typhoid Fever, Dr. Edward Guion, Atlantic City.

Is there any Hygienic Objection to the proposed discharge of the Sewage of the Passaic Valley into New York Bay? Edlow W. Harrison, C. E., Jersey City; George A. Soper, Ph. D., New York City.

Illustrated discussion of some successful Sewage Disposal Works, F. Herbert Snow, C. E., Boston.

Medical Inspection of Schools, Joseph Tomlinson, M. D., Bridgeton.

Can an outbreak of Measles be Controlled, T. N. Gray, M. D., East Orange.

To what extent is Isolation Necessary in Communicable Diseases? Gordon K. Dickinson, M. D., Jersey City.

Prevention of the Sale of Adulterated Milk, John O. George, D. V. S., Camden.



## CORRESPONDENCE.

Newark, N. J., Nov. 11, 1904.

DEAR DOCTOR NEWTON.—Please publish the enclosed letter from Dr. Bryant to me, with the request that every member of the Medical Society of New Jersey will consider it as addressed to himself personally and act accordingly.

Yours truly,

CHARLES J. KIPP.

New York, November 9, 1904.

DEAR DOCTOR.—The time is now ripe to impress through all sources at your command, upon the representatives of your State in the House and Senate, the great desire of the medical profession of their respective districts for the national incorporation of the American Medical Association. Especially is this true regarding such as may be members of the Judiciary Committee of either of these legislative bodies. Enclosed please find the personnel of each of these committees, before whom the measure will appear and, with whose approval, it will be reported for passage. Earnest and decided labor at this time will lessen greatly the need for it later; by early impressing on the minds of these gentlemen the great importance to all concerned of the success of this measure.

Please act promptly. Interview them, write them, telegraph them, remind them in all proper ways of your desire, and cause your friends and their friends and all others, to do the same.

Yours very sincerely,

JOSEPH D. BRYANT,  
*Chairman of the Committee.*

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Pittsburg, Pa., November 1, '04.

Dr. R. C. Newton,

*Editor of the Journal of the Medical Society of New Jersey.*

DEAR DOCTOR.—I have just read your editorial on my retirement as editor of *The Pennsylvania Medical Journal*. I have had many kind words said to me on this subject; but none have touched me more than what you have written.

Expressions such as yours amply repay me for the years of work that I have done in favor of higher ethics in medical journalism.

It gives me pleasure to note that your journal is free from the flagrant nostrum advertisements that disgrace so many medical publications.

Sincerely yours,

ADOLPH KOENIG.

No. 26 Church Street, Paterson, N. J.,

November 2, 1904.

DEAR DOCTOR NEWTON.—The common cry of our young men is that the old fellows monopolize the time in the society meetings, and they ask why the young men are not afforded a chance to do work in the meetings. We have a few young men who can be relied upon to bring interesting work to the societies. But so far as my observation goes, the number of young men who are willing to and really succeed in presenting matter to our medical society in good form is far too limited. It often appears to me as though there is a considerable class of physicians who see some of the old "staggers" as you call them, doing work, and they really wish to do such work themselves. But they are incapable of doing it, or are too lazy to devote the time necessary for its accomplishment. I often think that really the most brilliant men do the least work in behalf of science. It seems to me the semi-stupid plodding ones, who cannot be killed with hard work, who do the major part of the work out of the meetings, and also in them.

Occasionally it happens, that these workers are young men, but most of them are men who have been in the harness a long time, and who, of course, have not been killed and can scarcely be tired out.

Wishing you success in your editorship of the "Journal," I am,

Yours very truly,

PHILANDER A. HARRIS.

The William Pierson Medical Library Association held its annual meeting on November 15th. The treasurer reported a comfortable balance in the treasury. The librarian stated that there are now about 2,000 volumes in the library. It was suggested that lists of the books in the library be published for distribution, in order to attract more readers. The committee on lectures announced that Drs. Howard Kelly, of Baltimore; Lewis L. Pilcher, of Brooklyn; James E. Newcombe and Simon Flexner, of New York, would lecture before the association in 1904-05.

The following officers were re-elected: president, Dr. Thomas W. Harvey; 1st vice-president, Dr. Richard C. Newton; 2nd vice-president, Dr. Joseph C. Young; treasurer, Dr. J. Hammond Bradshaw; secretary, Dr. Richard D. Freeman; librarian, Dr. Henry A. Pulsford.

Council: The above named and Drs. William B. Graves, Mefford Runyon and T. Y. Sutphen.

## THE BOARD OF HEALTH OF THE TOWN OF MONTCLAIR.

BY RICHARD P. FRANCIS, M. D.,  
*Former Secretary of the Board.*

The Board of Health of the Town of Montclair was organized in March, 1894, just after the municipal form of government had been changed from a township to a town. Before this time there had been no separate Board of Health, the Township Committee performing the functions of such a body and the person who acted as health officer having many private duties that often took the greater part of his time. Hence the new board had practically an almost untried field in which to show what could and what could not be accomplished. An initial stimulus to zealous work was the fact that, only a few months before, the town had been visited by an epidemic of typhoid fever directly traceable to a polluted milk supply; and the interest attached to this had not died out when the new board began its ministrations. The remembrance of this epidemic was probably partly responsible for the readiness with which the town authorities and the citizens generally, co-operated with the board at the outset of its career; and the fact that this co-operation has continued through the ten years of the board's existence has been an important factor in aiding in its work.

Year by year the board has asked for an increase in the annual appropriation and many times special appropriations have been asked for—but not once has the Town Council withheld the needed funds. Year by year sanitary regulations of various kinds have been more rigidly enforced, but the citizens have helped and not hindered in their enforcement. It has been the policy of the board from the beginning to take the citizens into its confidence; to let them know what work the board was doing and how it was being done. In times of epidemics the public is kept fully posted about the true status of events and in this way needless panics have been averted; and any data obtained by the health officers in their ordinary routine of work are always at the disposal of any one who may be interested.

The board consists of five members who are appointed by the Town Council for three years and serve without salary. They receive an annual appropriation from the Council, and annually appoint a Health Inspector and his assistant, an attorney and a

chemist. From the first it was felt that the salary of the inspector should be sufficiently large to make the position attractive to a thoroughly competent man who would give all of his time to the work. The first year this salary was \$900 and since then has been gradually increased until now it is double that amount. All of the men employed as inspectors, and there have been four, have been graduates of scientific schools (three of them from the Massachusetts Institute of Technology) and have had special training in sanitary science. They have, therefore, been specially adapted for their work and the good results obtained show the wisdom of employing this class of men.

The cordial feeling which has at all times existed between the inspectors and the members of the board, the elimination of all friction between them, has been a very important factor in helping on the work that has been done.

How the work has grown can best be shown by a glance at the annual expenses of the board. The first year these amounted to a little over \$2,000, and the office force consisted of one man—the health inspector. During the fifth year \$3,792.82 was spent, an assistant inspector had been appointed and an office boy was employed at intervals. During the tenth year (ending June 1, 1904) \$8,178 (including a special appropriation of \$3,000 for smallpox) was spent and a second assistant health inspector had been appointed.

This increased outlay has been due to the following causes: (1) Salaries: As the duties of the inspector became more onerous it was felt only just that he should receive additional compensation and, as already stated, his salary is now double what it was ten years ago. The employment of the two assistant inspectors has, of course, demanded extra expense. (2) Contagious diseases: The disinfection of rooms and dwellings where there has been contagion is now done entirely at the expense of the board. The custom has gradually grown among the citizens of asking for disinfection of premises where there has been a case of tuberculosis. On several occasions the board has paid physicians to vaccinate the public school children free of charge and has also had them, at various times, make special medical inspections of one or more rooms in the schools where cases of contagious diseases have appeared. To people in poor circumstances the board furnishes antitoxin in cases of diphtheria and it has



likewise furnished nurses in cases of contagious diseases, where it was felt that the safety of the community and the ignorance and poverty of the patient's family demanded it. The maintenance of a pest-house, kept for cases of smallpox is an item of expense, and the care and quarantining of several smallpox cases and suspects have at times caused a large outlay. (3) The increased supervision, which is had over dairies, the fighting of the mosquito pest, the laboratory and the ordinary office expenses are additional items.

The work of the board, as shown by the annual reports, has been systematized, until it now covers the following fields, viz.: General sanitary supervision over the town, the supervision and control of communicable diseases, inspection and regulation of the milk supply, inspection of plumbing and gas piping and mosquito extermination. Regular meetings of the board are held every two weeks and special meetings are frequently called to cope with unexpected emergencies. At the regular meetings the inspector makes a full report of what he and his assistants have done since the last meeting, what contagious diseases have been reported and what violations of the health code have been found. The members of the board are thus kept constantly informed of the sanitary condition of the town and are the better prepared to take prompt action when occasion demands.

The physicians of the town have been ready and willing to assist the board in its work and their co-operation has been of the greatest possible benefit.

In the last annual report the Health Inspector says: "I am glad to believe that the board holds the confidence of the people of Montclair, and I am sure that to their interest in our work and to the encouragement that they have given us, is due whatever measure of success we have attained. An efficient Board of Health must have a very intimate relation to the daily lives of the citizens, and by the extent to which this state of affairs exists, the success of the board may be measured. The number of people that come to our office for assistance and advice is constantly increasing. We are well satisfied that this is the case, and only hope that we can continue to make the lives of the citizens a little easier and safer."

The Orange Political Study Club had as a guest at their meeting last month Dr. Emily Blackwell, of Montclair, who spoke on "Women in Medicine."

### THE REPRESSION OF QUACKERY.

The Medical Society of the County of New York has issued a statement, giving reasons why so few of the multitudinous advertising quacks and abortionists in that city have been apprehended and published through the action of its officers. Lack of funds is pleaded as the most serious drawback, though the society has curtailed its scientific features in order to devote its funds to the suppression of quacks. It is also hampered, it says, by the difficulty of getting victims to testify.—*Medical Record.*

### METHYL WHISKEY.

The investigations of the coroner and of the health commissioner leave little room for doubt that some at least of the suspicious deaths in the west side region, known as the "Stryker's Farm" district, were due to wood alcohol poisoning. A fact which this occurrence has brought to light, which is "important if true" and there is little question that it is true, is that a very large percentage of the whiskey drank here, whether domestic or imported, is sophisticated, even if free from amyl alcohol adulteration.—*Medical Record.*

Dr. Walter B. Johnson, president of the Paterson General Hospital Association, and Francis C. Van Dyke, president of the Paterson Orphan Asylum Association have received from John M. Mossman, president of the Rogers Land Company, letters and deeds to property adjoining the hospital and orphan asylum properties that will greatly benefit these two institutions.

### ALCOHOLISM FROM PATENT MEDICINES.

Speaking at a banquet of the Catholic Total Abstinence Union of America in Hartford last week, the Rev. Father Walter J. Shanley, rector of the cathedral there, attributed the growth of intemperance among women to the presence of alcohol in patent medicines. He referred to the very high percentage of alcohol in a large number of patent medicines, and warned his hearers against the use of them. It is now in order for the religious paper to refuse the advertisements of these alcoholic poisons.—*Medical Record.*

Dr. George N. Best, of Rosemount, N. J., has been invited to address the American Academy of Sciences at its next meeting in Philadelphia. His subject will be "Roses."

Alopecia areata is said to have appeared in a contagious form in the Millville schools.

The Board of Health intends to debar all scholars showing the disease from attending school until they are cured.

### PROOF POSITIVE.

A doctor in northern New Jersey, desiring to impress upon his fellow church members at a "prayer and conference meeting," the sincerity of his recent conversion assured them that for several weeks he had endured the onslaughts of the book agents and traveling men from the nostrum manufacturers without having lost his temper, once.

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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DECEMBER, 1904.

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### INTESTINAL OBSTRUCTIONS FOLLOWING APPENDICITIS.

After reading such papers as that of Dr. Wetherill in our last issue on the beneficent action of peritoneal exudates and adhesions, one would be disposed to look upon such sequelae of inflammatory processes in the abdomen as entirely harmless if not wholly beneficial.

That such a judgment would be unwarrantably hasty an able paper by McWilliams (*Medical News*, Sept. 3, 1904), on the subject of obstructions following appendectomies, and even appendicitis without operation, proves.

Of the later class he cites two cases from Kocher, one from Marion, three from Lapeyre, one from Blake, as well as two others, making nine in a series of eighty-six cases, or over one-tenth of the cases which he had collected. Eight of the cases of obstruction followed an appendectomy done in "the interval." Of these six were reported by Sonnenburg. McWilliams divides the cases following operation into three classes according to the time of their appearance: First, immediate; second, early; third, late.

The first class, "immediate" obstruction, comprises those cases in which obstruction comes on in a period varying from a few hours to two days after the operation.

The second class, "early" obstructions, contains those cases in which the intestinal occlusion supervenes within a few days or weeks of the primary operation, usually before the complete healing of the wound.

"Late" obstruction may come on weeks, months or even years, after the primary operation; or after an attack of appendicitis, which has not been operated upon. The patient in the meantime having been free from intestinal disturbances of any kind (or there may have been more or less indigestion, pain and constipation).

The causes of these obstructions are as follows: In the first class of cases intestinal paresis, owing to general or local peritonitis, which may be accentuated by adhesions. In the second and third classes, (a) the development of secondary abscesses in different parts of the abdomen, (b) they are more frequently "due to mechanical obstruction produced by adherent loops of intestine, causing constricting bands about each other or resulting in angulation, volvulus internal hernia, etc."

The symptoms of immediate obstruction are frequently puzzling, it being difficult to determine whether the lesion is due to intestinal paresis or mechanical obstruction (both of which conditions may co-exist in the same case).

In paralytic ileus, peristalsis is diminished or absent, while in mechanical obstruction it is strong and colicky. In the former some flatus may escape; in the latter, there is absolute obstruction. In the former, there may be little pain, in the latter this is severe and is not localized. In the latter collapse supervenes earlier and is more complete. Stercoraceous vomiting occurs less frequently in paresis and is less violent and projectile. Muscular rigidity however, is more pronounced and general in peritonitis than in obstruction, as are the symptoms of sepsis.

The differential diagnosis is however so difficult, that McWilliams asserts that many cases of mechanical obstruction have died unrecognized under the name of peritonitis. The diagnosis of obstruction having however been determined upon, laparotomy should be done as quickly as practicable. The mortality rate in these operations is "frightfully high." Of eighty-six cases quoted operated upon for obstruction, fifty-



seven or 66 3-10% recovered and 29 or 33 7-10 % died. The following are the conclusions reached.

First: The rarity of intestinal obstruction in comparison with the innumerable operations for appendicitis is noteworthy.

Second: Obstructions may follow an appendicitis that has not been operated upon.

Third: Obstruction may follow the "interval" operation.

Fourth: It is most apt to follow in cases where an abscess has formed. Sixty-nine, or 81%, of McWilliams's cases came under this category. Hence the advisability of early operation.

Fifth: Mechanical obstruction if supervening in a few hours after operation may pass unrecognized, being assumed to be parisis.

Sixth: Obstructions may occur years after the operation. Ten cases occurred in the second year and one seven and another eight years after the appendicitis. The patient in the meantime having in some cases enjoyed perfect health. In others, having showed symptoms of partial, chronic occlusion.

Seventh: There may be several attacks of true mechanical obstruction in the same subject. Five of the fifty-seven cases which survived the first operation for obstruction had one or more subsequent obstructions.

Eighth: Of the eighty-six cases operated upon for occlusion fifty-seven recovered and twenty-nine died.

Ninth: The small intestine was found occluded in all of the fifty cases, where this was looked for.

Tenth: The cause of the obstruction was given in fifty-three cases as follows: Constrictions by bands twenty-eight; volvuli, ten; kinking or angulations, eleven; internal hernia, four.

Eleventh: Gangrenous bowel was encountered in five cases necessitating resection; of these three recovered and two died.

Twelfth: A smaller death rate may be expected in the future from earlier recogni-

tion of the condition, and more prompt operation. Fecal vomiting should not be waited for.

Thirteenth: Prophylaxis against these obstructions may be found in appendectomies done before pus has formed, the use of as little drainage as possible, and the minimum handling of the intestines at the operation.

Fourteenth: Vigorous abdominal massage with elevation of the hips may avert an impending obstruction. Frequent changes in the patient's position after operation are also to be recommended.

Fifteenth: Since the exciting cause is in many cases an attack of acute indigestion, patients should have their diet carefully regulated for from four to six weeks after an attack of appendicitis or after an operation.

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#### ANOTHER CASE OF OFFICIAL INCAPACITY.

The ceiling of the drug room in the Jersey City Hospital fell the other night, wrecking the stock of medicines and greatly alarming the patients.

The building is said to be old and out of repair and plans have been prepared for a new one. Commissioners, presumably to superintend the work, were appointed under an act of the legislature. A dispute, however, arose over the plans, and although a contract for the new structure was awarded this action was not concurred in by the board of finance.

If a ceiling should fall in a ward and kill some of the helpless patients and the city should have to defend a number of damage suits for needless loss of life and limb, perhaps the disputes over the plans could be settled and the proper building erected.

By the way, where is the inspector of buildings in Jersey City, or the official, or the board, that ought to inspect this building and condemn it? Are they so busily engaged in this dispute over the plans for the new building that they have no time to inspect the old one?

Attention is earnestly invited to the letters of Drs. Kipp and Bryant in another column. There is not a single medical man in the world who has not some influence. If every one of us will do what he can toward securing national incorporation for the American Medical Association, this important movement will soon be an accomplished fact.

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### THE TENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE TOWN OF MONTCLAIR.

This report has excited a rather widespread interest. In the *Journal of the American Medical Association* of October 22nd, 1904, is an editorial under the caption "The Problem of a Satisfactory Milk Supply," which quotes largely from the report; in fact the editorial might be called an epitome of that part of the report which deals with the milk supply of Montclair, and relates the methods pursued to insure a supply of clean and wholesome milk in that town.

The *Newark Advertiser* of October 18, 1904, quotes at still greater length from the same report. That the secular press is eager for such matter to lay before its readers, is an encouraging sign of the times. It points to the fact that the general interest in matters of hygiene and clean living is reaching the point where people want to know what is being done by health boards, the next step will be that people will want to know why the health board of their particular town is not doing as good and efficient work as any other health board.

When the taxpayer wakes up to the realization of the fact that he and his family are living in constant danger from infectious diseases, from bad drainage, from impure water and from unclean milk, and that an efficient health board stands between them and these dangers, health boards generally will become as efficient as the one in Montclair now is.

Much praise has been given the Montclair board for their courage and persistence in

the inspection of dairies and in publishing to the world the results of their periodical examinations, both chemical and microscopical, of all the milk brought into the town for sale.

Both the *Journal of the American Medical Association* and the *Newark Advertiser* quote the following passage from the Montclair report.

"After ten years of unremitting effort to secure a pure milk supply for Montclair it is felt that in a large measure success has been attained. Most of the dairymen are thoroughly aware that it is impossible to market an unclean or impure milk in town, for the simple reason that the public will not buy it. The successful dairymen have brought their plants to a high degree of perfection, and the others are compelled to follow their example by the mere force of competition. Nearly all the men keep their cows in stables which are ceiled and which are cleaned twice daily. The use of straw and meadow hay for bedding has been given up by all of the best dairymen, and by most of the others. In its place pine shavings are used, and these give satisfaction. The feed is carefully selected, and the cows are kept clean and in good condition."

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### HOW CAN OTHER COMMUNITIES PROFIT BY MONTCLAIR'S EXAMPLE?

The editorial in the *Journal of the American Medical Association*, already quoted from, says, "The highly satisfactory condition prevailing in Montclair is no accident, but is the outcome of an outlined and systematic campaign."

The system was inaugurated and put on a good working basis by Marshall O. Leighton, an expert sanitarian, who was the health inspector in Montclair for six years.

What are the obvious lessons which are to be learned from the foregoing? They are as follows:

First: Every town which can by any means afford to pay for a competent health inspector should employ one, and smaller communities, by banding together, could hire a qualified man, who would do the work in three or four or even more towns.

Second: This inspector must be a chemist, a bacteriologist and in short, a thoroughly trained sanitarian, according to the standard of the last six or eight years.



Third: And when such a man has been secured he must be given a liberal and thorough support.

Fourth: Then every community of any size in this state can have the same protection that the health board of Montclair now affords that community.

Before Newark, Trenton and Paterson can do what smaller communities have done (for Plainfield is also doing the same good work) some general instruction will be needed. The average dairyman needs help and instruction before he can produce clean milk.

It would seem that the State Board of Health must take up the task of instructing dairymen throughout the entire state in the art of clean and hygienic dairying.

The New York State Health Board has done much efficient work along this line, and the city of Rochester has adopted a plan to get pure milk similar to that pursued in Montclair and in Plainfield. So far as we know, these are the only three towns in the United States, that are carrying out this hygienic measure.

But the necessity of such methods everywhere is so apparent, and the results of their inauguration have been so gratifying, that all of our communities must soon adopt them.

We understand that the Health Board of Newark is contemplating such an action, and when they adopt it, as they are sure to do sooner or later, the good work inaugurated by Mr. Leighton and the Montclair Board of Health will bear fruit not only throughout our state, but throughout the country. New Jersey dairying, largely through the initiative of Dr. Henry L. Coit of Newark, is already famous, and as we have just said, similar methods are bound to prevail eventually everywhere.

We learn with regret that the Fellows have as yet taken no steps toward establishing a competition for the Fellows' Prize Essay this year.

At this writing it is impossible to say whether the matter will assume definite shape again or not.

### A WORTHY EXAMPLE.

Dr. W. A. Whitlock of California, so we are informed by the *California State Journal of Medicine*, was recently summoned to court as a witness. After having given his testimony as to the facts in the case before the court, he was asked for evidence which involved expert knowledge. This he refused to give without proper compensation. The court adjudged him in contempt and sent him to jail. Presently the district attorney visited him in jail and agreed to approve his claim for \$50.00 if he would consent to give the testimony asked of him. He accepted these terms and was released. Dr. Whitlock said, "I went to jail to protect the rights of the profession, and would have been there yet if the district attorney had not come to my terms."

If the facts are as reported, the doctor deserves commendation from every physician in the country. We have often heard it said, and believe it to be true; that the most common fault of doctors as a class, is cowardice. We usually call it by some less opprobrious name; but there is surely too little of Dr. Whitlock's spirit in medical men generally. Otherwise, why does everybody seem to look upon us as fair game? Not alone greedy corporations and arbitrary judges are disposed to ignore the plain rights of medical men, but people generally, seem to love to "beat the doctor."

The report does not say whether Dr. Whitlock agreed not to bring an action for false imprisonment. It seems to us, however, that he will not have done his whole duty by the profession, until he has made an effort to impress upon the judge and the district attorney of that court, the fact that sending an innocent professional man to jail for an alleged contempt, and then virtually confessing themselves to be in the wrong by releasing him, and acceding to his terms, is not a safe thing to do.

## DR. DARLINGTON SPEAKS IN NEWARK.

Dr. Thomas Darlington, commissioner of health of New York City, delivered a lecture on October 28, in Newark, before the New Jersey State Federation of Women's Clubs. The title was "The Individual in Civics and Sanitation."

Amongst other things the speaker said: "An individual will have a glaring breach of the sanitary law committed near him day in and day out without seeking in any way to eradicate the nuisance, until in some way it becomes a cause of annoyance to him."

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"The main obstacle to the effectiveness of either the individual or an organization is that the zeal of the members is greater than their knowledge of the subject."

"We war against not only disease, idleness, prejudice, neglect and poverty, but also ignorance. The subject of preventive medicine is of special importance because of popular ignorance."

## DAVID AND GOLIATH.

We thought last month that if the Trustees of the American Medical Association read the *California State Journal of Medicine*, they would sooner or later, begin to feel that someone was talking about them, and that it might be incumbent upon some of them to reply. Our worst fears have been realized. The president of the Board of Trustees has come out in the open and like Goliath of old, has defied the apparently insignificant force who are fighting for what they esteem right and proper in medical journalism and in the conduct of medical organizations.

Let him take heed however, for every Goliath sooner or later, meets his David, and there is a David this very minute waiting for persons who indulge in unseemly boasting before the combat.

Max Korensky, five years old, of Paterson, fell forty feet from the roof of his home and was so little injured that two hours later he was playing in the street.

## A STEP IN THE RIGHT DIREC- TION.

The State Examining Board deserve much credit for advancing the standard demanded of applicants for license to practice in this state. We observe that they are declining to examine graduates from certain medical colleges and that they rejected the large proportion of twenty-five per cent. of the applicants examined in October last.

*The Committee on Scientific Work desire to give notice that interesting original papers from members of the Society are desired for the next annual meeting.*

*The titles and a brief synopsis of each paper should be in the hands of the committee by March 1st, 1905, so that a properly balanced program may be arranged and, wherever it seems advisable, a suitable discussion upon the subject of the paper may be provided for.*

*Address all communications and inquiries to*  
TALBOT R. CHAMBERS, M. D.,  
Commercial Trust Building,  
Jersey City, N. J.

## MARRIED.

Dr. Anna Root Mann, of Orange, to James H. Richardson, of Boston, November 4th.

## OBITUARY.

Dr. William Wilson, of Jersey City, N. J., died on Wednesday, October 26th, in his seventy-fifth year.

Dr. Eleanor Louise Rundio, of South Orange, N. J., died at her home, of typhoid fever.

Dr. O. S. Belden died at Camden, N. J., on October 26, at the age of 70 years. He was a veteran of the Civil War, and served as surgeon in the Fifth New Jersey Volunteers.

Dr. Mordecai Price, one of the best known surgeons in Philadelphia, was found dead in his office, October 29th.

Dr. Guilford H. Gunther died at Camden, N. J., on November 5th, at the age of forty-six years. He was graduated from the Medical Department of the University of Pennsylvania in the class of 1881.

Dr. David G. Hetzell died at Philadelphia on October 26 at the age of 68 years. He was graduated from Jefferson Medical College in the class of 1858. At the outbreak of the Civil War he became assistant surgeon to the Thirty-fourth New Jersey Volunteer Regiment. Later he served with the Twenty-third New Jersey regiment.

Dr. D. D. Smith, of Philadelphia, read a paper on "The Use and Abuse of Arsenic" before the Central Dental Association of New Jersey, at a meeting held at Davis's parlors, Newark, November 21.

Dr. Archibald Mercer has recovered from a severe attack of acute rheumatism.



## Special Article.

### PSILOSIS.

#### The President's Address Before the Essex County Medical Society, April 5th, 1904.

BY WALTER S. WASHINGTON, M. D.  
NEWARK, N. J.

A personal experience during the summer of 1903 with a case of psilosis, or sprue, I have thought would be of interest to this Society. A well-preserved woman aged 62, whom I had known for many years, came into my office the first week in May complaining of a sore mouth. She said she had suffered for several weeks, and had had much trouble because the plates of her false teeth hurt her. An inspection showed what apparently was an ordinary case of stomatitis. There were numerous small ulcers on the top and sides of the tongue; and one much larger on the gum of the lower jaw. She said this condition had been slowly getting worse for a number of weeks, and that the pain was very severe when she took anything into her mouth and swallowed it. I gave her treatment, and assured her she would soon be well. She came back every second or third day, still complaining, when I found new crops of these little ulcers to treat. This continued for about two weeks, when my patient informed me that her bowels were very loose. At the end of three weeks I was summoned to her home. She felt unable to come to my office any longer. The condition of the mouth did not improve. She complained of great pain when her bowels moved, and I found a number of small ulcers about the edge of the anus of the same character as those in her mouth. By this time, also, in addition to the ulcers in her mouth, she had small, light-colored patches on the back part of her tongue. I made a diagnosis of psilosis. Later, Dr. Edward J. Ill saw the case in consultation and agreed with me in the diagnosis. The patient by this time had gradually grown weaker; the condition of the mouth was

worse; the tip and edges of the tongue were raw and sore. This condition of the mouth was accompanied by almost constant nausea. There was also very distressing hawking and retching, especially after food had been taken. Her voice was altered, much of the time it being almost impossible to distinguish what she said. Movements of the tongue were painful, and she complained intensely of the dryness of her mouth. Towards the last she was at times apathetic, and at other times irritable. The diarrhoea was continuous, ranging from four to twelve movements every twenty-four hours. The movements were pale, muddy in color, frothy, and very offensive. They were not watery. There was some abdominal pain, but no tympanites. The temperature varied from subnormal to 102, but was generally below 100. The small ulcers around the anus coalesced, forming in time a complete red, raw surface surrounding the anal ring, so that the movements were accompanied by pain. The sense of smell became perverted; and, during the last two months, a peculiar disagreeable odor was exhaled from the skin. The latter was dry, shriveled, pigmented, and had quite a considerable number of ecchymotic spots, particularly on the abdomen and the extremities. She complained many days of being chilly. Her pulse grew rapid and weaker, and she became greatly emaciated. Upon pressure she complained of considerable pain in the back and heels. At times, for two or three days, the number of fecal movements were reduced to four or five; she was brighter; there was less nausea and general discomfort, and we indulged in hopes of her recovery. These periods were always followed by an aggravation of all the symptoms. Her anus became so relaxed that at times her bowels moved involuntarily. Towards the last she had swelling of the ankles and feet. At no time were there albumin or casts in her urine. An examination of her blood gave no Widal reaction, and there were no plasmodia malariae. The red corpuscles were very much reduced in number.

She died the last of August, her illness

having lasted a little over four months. She was conscious until four hours before the end.

A variety of remedies were used to relieve her, none of them giving her any appreciable relief whatever. The diet was milk in various forms. The mere swallowing of anything else caused her pain and distress; and after trying many articles of diet, they were all discarded.

As this is a disease of the far East, and occurs in hot climates, I am unable to account for its appearance here.

Among the causes given, is mental anxiety, and that is the only one which was present in this case. She had great mental distress for many months prior to her sickness and during the whole of it.

The case I have detailed to you presents a very well-marked picture of psilosis as described by those who are familiar with the symptoms. It was a more than ordinarily acute case, the disease itself as a rule being of a chronic character, and lasting from six months to two or three years.

One reason that urged me to present this matter to you, in addition to its rarity, is the fact that any of you may be confronted with a similar case, which may be sent home from Manila or the far East on account of our acquisition of the Philippines and the increasing trade which exists between this country and China, Japan and those far eastern countries.

The only thing I have been able to find in American literature regarding this disease is a pamphlet written by Dr. William E. Musgrave of Hot Springs, Ark., who was a contract surgeon in the United States Army. He reports 127 cases in the First Reserve Hospital in Manila. They were studied exhaustively, and a very complete description of what was found on autopsy and by the microscope is given in the pamphlet. The earliest, and one of the best and most graphic descriptions we owe to Hillery in 1776. Since he wrote, most writers on tropical diseases have dealt with the subject, among them, Annesley, Twining, Martin,

Grant, Donald, Moore, Sir J. Fayrer, Vanderburg, Thin and Manson. The most exhaustive work on sprue, and one of the most recent, is by Bertrand and Fontan of France. Most of the literature is to be found in France and England, on account of their large colonial possessions. The medical men of those countries had extensive experience in the colonies, and also among those who had been invalided home on account of the disease.

Sprue will be found in most parts of the tropical world—Java, Cochin China, India, Ceylon, The Malaysian Archipelago, Mid-China, Southern China, Manila, the West Indies, tropical America and Africa.

Among the remoter causes prolonged residence in hot climates is the chief. The disease may show itself in one or two years, or less. More direct factors are exhausting diseases, particularly those of the alimentary canal, such as dysentery, diarrhoea, haemorrhoids, fistula in ano, child-bearing, miscarriage, uterine troubles, particularly those attended with hemorrhage, prolonged lactation, syphilis, bad food and water, and mental anxiety. Malaria has been cited as a cause, but is not known to be such, although it may accompany sprue. Of the real exciting cause of the disease nothing is known. We cannot say whether it be of a physio-pathological character or a specific germ. In some cases amoeba coli have been found by Dr. Musgrave; but they were not considered a part of the disease. Although it is possible that one of the innumerable species of bacilli present in the stools may be the cause of the disease; such a relationship has not been proved.

In connection with the etiology of sprue, it is of importance to bear in mind that whatever the actual cause may be, it is certain that it is something which can remain latent for a long time, for one who has resided in a sprue country may return to Europe or America apparently in good health, and remain so for months, or even for years; and yet, after this interval, the disease may show itself for the first time. Or, a patient may recover from the disease, and yet, without



leaving these countries, may suffer a relapse after months or years of good health.

The tongue becomes affected either at a very early stage of the disease, or shortly after the intestinal symptoms have developed. The tip and edges of the anterior part of the organ become of a bright, rosy red color, and red patches may show themselves on various parts of the surface, isolated in white epithelial fur, and in these patches large congested papillae are visible. Slight, superficial ulceration may occur on the sides of the tip near the fraenum. These ulcerations do not go deeper than the epithelial covering, and seem to consist of small shreds of necrosed epithelium, in acute cases. A localized erythematous patch may occur on the soft palate, which sometimes assumes the form of a distinct herpetic eruption. These herpetic eruptions of the palate occur early in the disease and are quite different from the aphthous affections of the mouth, which are common in the later stages of this and some other diseases. The month becomes extremely tender. Hot fluids, condiments, alcoholic drinks burn the tongue and make eating and drinking very painful. When the tongue is in this condition, its movements cause so much discomfort that the patient in speaking disturbs it as little as possible, rendering the utterance thick and indistinct. Later, the tongue may become glazed, shiny, and very red. If the patient is very anaemic, and there are no active inflammatory symptoms in the mouth, the condition of anaemia may be indicated by the tongue becoming small and yellowish white.

The degree to which these special conditions may occur varies in different cases. In some the smooth stage is early reached; in others not even after most of the fur has disappeared. The disappearance of the white fur and of the raised papillae and the appearance of the smooth, shiny surface indicates an advanced condition of the disease, but they sometimes appear when the patient is still quite strong. In these advanced cases a re-appearance of very fine, delicate fur, almost colorless, indicates that the patient is beginning to improve. There are cases in

which the condition of the tongue is almost the only symptom. In many cases the inflammatory condition extends down the esophagus. In some much complaint is made; in others very little. In some, great distress is caused by the passage of food from the throat to the stomach. In some, nothing but milk and water can be swallowed without very marked distress. Some have a distressing feeling of dryness; some of hawking; some have retching after food is taken, which is evidently due to particles of food lodging in the pharynx and on the surface of the gullet. The voice is sometimes, but not always, altered. During the progress of the disease there is comparatively little to be found by examination of the abdomen. There may or may not be tenderness. The uneasy sensation, of which the abdomen is the seat, is associated during the course of the illness with the character and amount of diarrhoea. There is occasional soreness about the anus, but this is not very common, and many patients do not complain of it at all. In some fatal cases death has been preceded by symptoms of irritation and inflammation of the rectum, but these symptoms occur in the last stages of the malady. As a rule there is no fever attending the progress of the disease, the temperature being normal or sub-normal. In fatal cases the temperature rises slightly shortly before the death of the patient. The urine presents nothing abnormal, and albuminuria is not a common complication. Anaemia is present in all cases, in the severe ones being very considerable, and in bad cases it is extreme. Cases have been diagnosed as pernicious anaemia by medical men who had never seen the disease and who were not aware of its existence.

The diarrhoea varies very much in character. There is usually no blood in the stools and no straining. The stools are of a pale straw, sometimes yellowish, and sometimes muddy in color, frothy, and in chronic cases which have lasted some time, they consist of a grayish-white pultaceous mass, frequently in a state of apparent fermentation, the movements often being covered

with air bubbles. In the early stages of the disease the diarrhœa is usually limited to the morning hours, the patient feeling well and being free from purging during the after part of the day.

Some of the patients have an expression which is characteristic; many of them look anxious and depressed, and a few have a withered, shrunken face, and look older than they are, while others have a peculiar, vacuous, absent expression. Some look well; most of them look weak, and most of them emaciated. When the disease has lasted some time and is severe, the sunken orbit and pearly white conjunctiva contribute to increase the impression they give of being gravely affected by the disease. The changed aspect which they present depends largely upon the severity of the attack and on its duration. Some of them look ill very soon. Others do not show it much in their faces until after a considerable time. The mental changes depend not only upon the stages of the disease, but on the temperament of the patient. Depression, irritability and sleeplessness are not uncommon. In the later stages there may be cerebral excitement, the patient refusing to realize the serious nature of his condition, and often his mind is occupied with subjects that ought to be of comparatively little interest to him. This state of mind adds very greatly to the difficulty of treating the disease, as it is generally accompanied with unwillingness to submit to the regime which is so necessary if a cure is to be obtained.

When the disease is advanced, the nutrition is greatly impaired. There is very great loss of weight; the skin is harsh, the ankles œdematous, and emaciation becomes very marked. The pulse is sometimes slow; sometimes rapid, and towards the last is always feeble. There is no jaundice, no pain over the liver, and no bile in the urine. Apart from the diarrhœa, the patient suffers from sour eructations, heart burn, and sometimes flatulence.

Relapses are frequent and very discouraging to the patient as well as to his medical adviser. The most common cause of relapse

is error in diet. The management of such patients is very trying, particularly to the relatives and nurses.

Hitherto it has been impossible to ascertain the primary and fundamental lesions of sprue. If the tongue is a trustworthy index of what is going on in the throat and lower parts of the alimentary canal, then we must conclude that the primary lesion is a catarrhal state of the mucous membrane, as evidenced by the premature shedding of the epithelial covering, congestion of the papillæ and folliculitis going on to superficial ulceration. What, in its turn, may be the cause of the catarrh, we cannot say.

Digestion and assimilation are early affected, and these in turn lead to tissue starvation. An artificial, physiological famine is induced. Therefore, in contemplating the lesions found post mortem in a case of sprue, we must be careful to bear in mind that many, if not most of them, are not the specific and primary lesions of sprue, but primary and secondary effects of starvation. Thus, if at the end of a long case, the alimentary canal is examined, there is present a three-fold pathological condition; namely, first, the specific and primary lesion; second, the specific starvation lesion, and third, the secondary irritative lesions.

To sort out these in the present state of pathological knowledge, would be an impossible task. After death, the tissues as a whole are found to be abnormally dry, in consequence of which the body tends to mummify rather than decompose. The thoracic and abdominal viscera are both actually and relatively wasted. There are no morbid appearances in the liver which from their invariable presence might be considered essential. More frequently, according to Bertrand and Fontan, certain peculiar and hitherto undescribed changes are encountered in the pancreas, such as fatty or granular degeneration of the cells with softening of the acini and slight inflammatory infiltration of the connective tissue. These pancreatic changes, however, are secondary, and not essential, as, like those sometimes found in the liver and also in the kidneys,



they are far from being constantly present.

Speaking generally, the bowel may be described as being thin. There is no necessary or notable lesion of the serous or muscular coats, but from mouth to anus they are affected in segments or in patches of greater or less extent. The mucous membrane is diseased. Its free surface is coated with a thick layer of dirty, viscid, gray, tenaceous mucus. In washing this away the mucous membrane is found to present a variety of lesions. First, congestive patches; second, eroded patches; third, ulcerated patches; fourth, pigmented patches; fifth, bare, thin-scarred, cicatricial patches; sixth, absence of or wasting of villi and glands; seventh, in addition to these, the mucous membrane, where not entirely replaced by fibro-cellular, new scar growth, is felt and seen to be sown with minute spherical tumors about the size of a pin's head, surrounded by a dark pigmented areola. These little nodules, on being cut into, are found to be situated in the sub mucosa, to have gelatinous contents, and generally a punctiform orifice. They are mucous cysts replacing follicles.

Under the microscope, sections of the diseased portions of the œsophagus, stomach and intestines show patchy or general destruction of the surface of the mucosa in all degrees, from slight erosion to complete disintegration of the villi, glands and follicles, effusion into and around the closed follicles leading to the formation of mucous cysts or of small abscesses, which subsequently rupture and ulcerate, infiltration by leucocytes of the basement membrane, and inflammatory infusion into the sub-mucous layer with subsequent fibro-cirrhotic changes in new tissue. The mesenteric glands are dark, and perhaps fibrotic. The ulceration met with is not always extensive. The primary pathological condition of the mucous membrane, seeing that it admits of recovery, is probably of the nature of a catarrh and confined to premature shedding of epithelium and folliculitis. After a time, this condition being unrelieved, more serious changes may supervene. The necrotic famine changes or in-

flammatory changes induced by persistent irritation, may set in.

Applying the revelations of the post mortem room to the interpretation of the symptoms, we can understand that according to the region and extent of the alimentary canal involved will the symptoms be. If the œsophagus be implicated, dysphagia and sub-sternal burning will be primary symptoms. If the stomach be involved, vomiting and dyspeptic troubles of various kinds will occur. If the intestines, diarrhœa. If the colon, dysenteric diarrhœa. All of these conditions and symptoms may, and often do combine in one and the same case.

Of the many hypotheses which have been advanced to account for the absence of color in the stools, the most simple is that which accounts for the phenomenon by assuming that in sprue there is a suspension partial or complete of the chologenic function of the liver. Such a supposition would also explain the yeasty, fermenting state of the stools so characteristic of the disease.

Pathologically, sprue may be regarded as a morbid process consisting in a suspension of the chologenic function of the liver, together with a specific, chronic, catarrhal condition of all or part of the digestive tract; which, if it persists, leads in time to necrotic and inflammatory processes in the mucosa, ending in the destruction and permanent loss of glandular and absorbent structures.

The treatment is mainly dietetic and hygienic. The milk treatment is by far the best. The patients should be clothed in flannel, and if the diarrhœa is active, should remain in bed until the stools become solid. Place a pad of cotton over the abdomen, and keep it in place by a flannel bandage. Give three pints of milk a day, the milk to be taken in divided doses at intervals of one hour, allowing a reasonable amount of time for undisturbed sleep. If the diarrhœa still continues, the quantity of milk must be diminished to 25 or even 10 ounces. After the stools have become solid for a few days, the milk is increased to 100 or 150 ounces. This regime must be steadily adhered to for a

month or six weeks, for relapses are very, very frequent unless it is adhered to.

During convalescence, and for a long time after, the patient ought to be instructed on the slightest recurrence of sore mouth or trouble with the bowels, to go back to milk again until the trouble has subsided.

Drugs are secondary matters except for special indications, such as malaria. For the raw, sore state of the mouth, it should be rinsed out after taking the milk, with a weak solution of borax. The painful spots may be touched with cocaine and then nitrate of silver. If, after a thorough trial of milk for a fortnight, there is no sign of improvement, peptonized milk, malted foods, fresh meat juice, scraped beef, white of egg, pounded chicken, cooked arrow root, corn starch, and things of that character may be tried, but the chances of success are not good.

Dr. Begg, of Hankow, China, has claimed very beneficial results from the use of yellow santonine.

Another system of treatment which deserves further investigation is what is known as the fruit cure, or "grape cure," and is strongly recommended by Vanderburg.

Sprue, being a chronic disease, has been a fruitful field for the quack, and one who was particularly successful in the east, succeeded in curing a case by giving castor oil for several days in succession, in the meantime feeding the patient with milk. He then gave simaruba with opium with a dessert-spoon filled with a white powder consisting of a large proportion of carbonate of lime.

It is a disease, which under any circum-

stances, will tax the ingenuity of the attending physician if he conducts it to a successful issue.

### STATE MEDICAL EXAMINING BOARD.

At a meeting of the board, held at Newark, November 2d, the following candidates for a State Medical License who passed the examination at Trenton, October 18-19, were duly licensed:

Herbert J. B. Belcher, Paterson; Harry Frederick Bushey, Camden; Thomas Arthur Clay, Paterson; Shobel Vail Clevenger, Atlantic City; James Patrick Coll, Philadelphia; William Higgs Cunningham, Hammonton; Walter James Curley, West Upton, Mass.; Peter Price Denton, Paterson; William Francis Donovan, Brielle; Owsley Bennett Duncan, Paterson; Edward Francis Fitzpatrick, Jersey City; Wilbur Allen Foster, Wilkesbarre, Pa.; William Francis Gutherson, Paterson; Ida Louise Haverstick, Philadelphia; Louanna Heath, Somerville; Peter Joseph Johnson, New York City; Alexander Spencer Kaufman, Philadelphia; Francis John Kerns, Newark; Maurice J. Klein, Newark; Chauncey Benjamin Lambert, Riverside; Israel Levine, Paterson; Julius Levy, Orange; William Gibbs Nash, Newark; Charles Llewellyn Owens, Sunnysbrook, Md.; James Gordon Rea, Paterson; Erwin Reissman, New York City; Edwin Nicholas Riggins, East Orange; John J. Rufe, Revere, Pa.; William Whitney Waterman, New York City; Arthur Hamilton Ward, Paterson; Henry Rudolph Widmer, Newark; Bernard Henry Woolff, New York City; Thomas Youngman, Atlantic City.

The rejections were 25 per cent. of the number examined.

### LOVING CUP PRESENTED.

The medical profession of Atlantic City, on October 17, presented Dr. Byron Cook Pennington with a handsome silver loving-cup, suitably inscribed, in token of their appreciation of the sterling worth and faithful work of Dr. Pennington during his 24 years of practice in Atlantic City. Dr. Pennington sailed, October 22, for Bermuda, where he will spend the winter.—*Journal American Medical Association.*

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D., 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the authors of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.

Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.



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## A REVIEW OF RECENT PROGRESS IN SURGERY.\*

BY FRANK D. GRAY, M. D., JERSEY CITY.

Surgical progress consists either in devising new operative procedures or better technique for the treatment of well understood pathologic conditions, on the one hand; or, on the other, developing the pathology of conditions previously obscure and suggesting suitable operative treatment of the same.

The most striking instance of the latter during the past year, in the writer's opinion, is the work of Von Mikulicz and of Mayo Robson (together with his chemist, Mr. Cammidge) in the field of pancreatic surgery.

The *Annals of Surgery*, July, 1903, publishes a comprehensive paper, read by Mikulicz before the Congress of American Physicians and Surgeons, in May, 1903, and entitled "Surgery of the Pancreas, with Especial Consideration of Trauma and Inflammatory Processes." He explains the tardy development of pancreatic surgery on several grounds; first, the comparative infrequency of traumatism, owing to the gland's protected position; second, the difficulty of differentiating either disease or injury of the pancreas from that of adjoining important organs, and the likelihood of

their coincident involvement, thus superimposing symptoms foreign to the pancreatic lesion; third, the remoteness and fixity of the pancreas, which prevent bringing any portion of it to the surface for operative procedure, in contrast to other abdominal organs and viscera; fourth, the danger of injuring overlying organs directly, or indirectly by interference with their blood supply during operation. These facts explain why pancreatic surgery lags behind that of the intestines, appendix, bile tracts, stomach, etc., although the earliest operative work on the pancreas dates back about twenty years, to Gussenbauer's description of the first operations on pancreatic cysts, contemporaneous with the inception of other abdominal surgery which has now reached a high degree of precision.

Surgery of the pancreas has been, till recently, limited to evacuation of cysts or dealing with some unsuspected lesion in the course of operation, where anything but pancreatic involvement had been suspected in advance.

Mikulicz reveals the still prevailing vagueness of pancreatic cases when he says "In the beginning of pancreatic surgery, the vast majority of operations were undertaken by chance, and under a false diagnosis; but to-day explorative incisions are in order and usually reveal a condition calling for operation even when a pancreatic lesion is not discovered." In pancreatic traumatism, subjective symptoms are unreliable as they so

\* Read at the 138th Annual Meeting of the Medical Society of New Jersey.



closely resemble severe injuries of neighboring organs, such as rupture or perforation of the stomach, intestines or gall bladder, or acute intestinal obstruction. In the majority of cases also disturbance of gland function is not manifest until the greater portion of the pancreas is involved in an inflammatory or necrotic process and hence operation is useless.

Operations for suspected trauma of the pancreas must, therefore, be undertaken on a *probable* diagnosis and differentiated after the abdomen is opened; but he emphasizes the importance of recognizing at once, on making the incision, the pathognomonic signs of injury to the pancreas, viz., *fat necrosis* and *hemorrhagic exudate*, and wasting no valuable time, as so often happens, in search for other conditions which the symptoms may suggest; but immediately proceeding to explore the pancreas and dealing with the lesion found. The routes of approach to the pancreas are given as transperitoneal and retroperitoneal, the former being subdivided into the gastro-hepatic, gastro-colic and meso-colic, all of which routes involve opening the omental bursa, or lesser peritoneal cavity. In addition, there is also the so-called Koerte's route, by crowding along the median side of the duodenum, giving access, however, only to the *head* of the pancreas. Retroperitoneally the pancreas may be reached in either costovertebral angle, by which route naturally only the head or tail or the organ is exposed, a method applicable only to a predetermined abscess, cyst or haematoma.

The special danger of operations on the pancreas, aside from the unfavorable general condition which exists, except in cases of simple cyst, lies in the unusual difficulty of haemostasis in tissue so friable, or rich in blood supply, as well as the risk from escaping pancreatic secretion, particularly that which is a degeneration product of inflamed or necrotic gland cells. This secretion does not flood the abdominal cavity in such quantities as to prove fatal by mere absorption; but acts indirectly through local irritation of the peritoneum and by preparing a nutrient medium for bacterial invasion. There is also the danger of retrograde infection of a traumatized pancreas through the duct of Wirsung. Again, it is probable that secretion from an uninfected traumatized pancreas may set up an aseptic peritonitis with intestinal paresis and rapidly developing obstruction, capable of masking the actual condition.

Mikulicz suggests two methods of protecting nearby parts from secretion escaping through an injured pancreas. (1) That of Ninni, turning in the wound edges by suture; (2) gauze tamponade and drainage; recommended by the author. Among 12 cases of trauma, 8 were drained; 6 recovered; 4 not drained, 1 (Ninni's case) recovered. Other statistics given by Mikulicz prove conclusively the necessity for tamponade drainage. He believes from experience that slight pancreatic injuries may heal spontaneously; consequently the rule to operate is not absolute. The decision must rest on the concensus of symptoms, as to severity and progressiveness. Serious injuries are always fatal without operation: hence suspicion of severe pancreatic trauma always justifies exploration.

Mikulicz regards acute pancreatitis, distinguished from pancreatic apoplexy, as ineffective, advising evacuation and drainage, as in treatment of a phlegmon, to which he likens it. As etiologic factors, he mentions (1) the slight tendency to spontaneous haemostasis, otherwise strong tendency to haematoma formation; (2) the locally destructive and generally toxic effect of pancreatic ferments set free by hemorrhagic and inflammatory processes; (3) the liability to infection from duodenum and choledochus. Regarding the results of *complete* and *incomplete* operations; a series of 41 cases is cited, where the procedure consisted only in abdominal section, cleansing the peritoneal cavity of exudate by flushing, followed by drainage without touching the pancreas, 4 cases recovered. On the other hand, among a series of 27 cases similarly treated, in addition to dealing with the pancreas locally, 25 recovered.

A comparison of *early* and *late* operations for acute pancreatitis, so far as recorded cases show, speaks for the late interference; but Mikulicz remarks that our ignorance of how many cases of acute disease terminating fatally without operation might have been saved by early intervention prevents the establishment of any definite rule on that point.

One of the advantages of early operation, aside from avoiding sepsis, is the possible prevention of necrosis of a considerable portion of the gland, with its remote results: emaciation, pancreatic diabetes, etc.

The author gives as his excuse for citing a large series of statistics, showing the desirability of active interference with the pancreas in cases of acute inflammation, the

fact that most surgeons still prefer to close the abdomen and pronounce the case hopeless, when they find fat necrosis and hemorrhagic exudate.

Concerning *chronic* pancreatitis, attention is called to the difficulty of diagnosis, and liability to confound it, clinically, and even at operation, with carcinoma of the organ. The possibility is also emphasized, as had already been done by Mayo Robson, of a chronically inflamed pancreas causing biliary obstruction; and on the other hand obstruction by a calculus in the ampulla of Vater resulting in chronic pancreatitis by stasis and retrograde infection.

Owing to the uncertain diagnosis of these conditions, Mikulicz says that the operation should always begin as an explorative incision. Had he written his paper a year later, he would probably have omitted or modified the foregoing statement, for the recent publication, by Mr. Mayo Robson and his collaborating chemist (Mr. Cammidge) of the results of their investigations and observations concerning what they term "pancreatic crystals," has, it is hoped, established a new and reliable test for pancreatitis, as well as the differentiation of the various forms of the disease. In 1901, Mr. Robson announced at the American Surgical Association in Baltimore, that during the preceding year he had observed an apparent coincidence between pancreatitis, especially the chronic form, and certain yellowish, ray-shaped crystals developed from the urine of such patients by treating it with certain re-agents. He expressed his hope that the test in question might come to be a valuable aid in diagnosis.

About a year ago Mr. Robson told the writer that he and Mr. Cammidge were still pursuing their investigations concerning pancreatic crystals with satisfactory results, but had not yet published them for fear of making a premature announcement. That the first period of probation for the test has passed is evident from the fact that Mr. Robson discussed the subject freely in his masterly "Hunterian Lectures," of March, 1904, entitled "The Pathology of Certain Diseases of the Pancreas," (published in the *Lancet* of March 19, 1904, and the two succeeding numbers), while in the "Avis and Gale" lecture on "The Chemistry of the Urine in Diseases of the Pancreas," delivered by Mr. Cammidge, the latter gives, with minute detail, the technique of the test for crystals in urine from suspected pancreatic cases.

The scope of both these lectures is so wide and detailed as to prevent even a suitable abstract within the limits of this paper. Suffice it to say; Mr. Robson stated that he had, up to that time, used the test in all suspected cases for the four preceding years and had, during the same time, applied it to many "control" subjects, *i. e.*, where no suspicion of pancreatic disease existed, confirming the reliability of the diagnostic measure fifty-six times by operation and in other cases by autopsy. He felt sufficiently certain of its accuracy to wish now to submit it to the crucial trial of use by the profession at large. For this reason, he not only gave his clinical experience, but Mr. Cammidge added, in his lecture, full details of the rather complicated chemical and microscopical processes of obtaining the crystals from pancreatic urine and interpreting certain solubility tests, etc., which enable a differential diagnosis to be made between malignant and inflammatory disease of the pancreas, as well as between the varieties of inflammation; acute, subacute, and chronic. Mr. Cammidge makes the statement that, while neither he nor Mr. Robson claim absolute pathognomonic value for the crystals, or that, taken alone, they will enable a correct diagnosis to be made in every case; yet they do believe that, taken in connection with clinical symptoms, a trustworthy diagnosis in nearly all pancreatic cases is possible, and that in future it will practically supersede explorative operation. There is no doubt that this original work of Robson and Cammidge deserves to rank among the great scientific researches in our profession.

Aside from the light thrown on pancreatic surgery by Mikulicz, Robson and Cammidge, the surgery of the upper abdominal zone has been enriched during the past year notably by the contributions to operative conditions of the stomach by Wm. J. Mayo, Jno. B. Murphy and Mr. B. G. A. Moynihan of Leeds. Especially worthy of attention are two papers by Mayo; one published in the July, 1903, number of the *Annals of Surgery*; the title being "A Review of Three Hundred and Three Operations upon the Stomach and First portion of the Duodenum with a Tabulated Report of Three Hundred and Thirteen Operated Cases." Another paper entitled "Radical Operations for the Cure of Cancer of the Pyloric End of the Stomach," appeared in the same journal for March, 1904.

According to Mayo, the duodenum proximal to the entrance of the choledochus par-



takes of the functions and lesions of the stomach; such lesions have the same causes as similar ones in the stomach and they can rarely be differentiated on pathologic grounds. Ulcers and abnormalities of the bile tracts are the causative elements of nearly all diseases of the proximal duodenum. Out of 26 cases of duodenal disease, only 2 were so diagnosed prior to operation, the points of differentiation being good appetite, delayed pain, usual absence of vomiting and infrequency of hæmatemesis. Melæna occurred in but two of the series. The symptoms were practically those of stomach or gall-stone disease.

Mayo discusses stomach lesions under two general headings; ulcer with its complications and cancer. The results of his work establish a world record; 10.6 per cent. mortality in a series of 277 operated stomach cases, while among a series of benign affections, 168 in number, the death rate was only 6.5 per cent. The indications he gives for operation in the benign group are gastric pain, with or without exacerbations, repeated hemorrhages and emaciation from inability to retain food. A few cases of dilation from known or unknown causes give *mechanical* indications for operation. He considers hyper secretion as the chief etiologic factor in peptic ulcer. In proof of which is the fact that duodenal peptic ulcers are found only above the intake of the alkaline secretions from liver and pancreas; also that peptic ulcer sometimes occurs in that portion of jejunum distal to a gastro-enterostomy; that is, in fields of acid secretion.

Ulcers are classified as follows: (1) round and fissured (either acute, subacute or chronic); (2) chronic, with irregular form and thickened base, probably an extension of the chronic round. Mucous erosions in single and multiple small areas, as well as the "pore like ulcer of Muchison" were observed. Mayo's conclusions regarding the locating of round ulcers and erosions, together with the comparative merits of excision and gastro-enterostomy are worth giving in full.

The author says: "The whole subject is surrounded by difficulty and uncertainty. There are usually no external manifestations" (on the stomach wall even during exploration), "which lead to locating the lesion, and the only way a diagnosis can be established is to open the stomach and with a short, wide speculum explore the interior. The margin of the instrument may, and

often does produce a traumatism of the superficial mucosa and the result is very like the pathological erosion."

"The chief obstacle to accurate diagnosis consists in the surgical indications to be met. Round ulcers and erosions are often multiple and, as a rule, do not cause cicatricial contraction at the pylorus. Clinical experience has demonstrated that drainage is the best method of surgical treatment. Therefore, an exploration, however attractive to the surgeon, is not often completed; but the surgical conditions are fulfilled by some form of gastro-intestinal operation and the diagnosis remains unproved. The surgeon hesitates to expose the patient to even a slight additional risk for a purely diagnostic purpose. The old adage 'A good prognosis is better than a good diagnosis' leads to operations based on symptoms."

This is quite in agreement with the views of Moynihan and opposed to those of Murphy, as will be observed in the writings of these surgeons to be noted later. Mayo continues "if round ulcer is found, excision is the proper course; but there is always the chance that the ulcer excised is not the only one, and that others exist, undetected or in an inaccessible situation. \* \* \* We found conditions favorable for excision in only three cases." He examined the pylorus in 300 cases with a view to establishing its normal size under anæsthesia. As a rule thumb and forefinger just nicely met through the aperture—about the size of a silver dime. A few, under deep anæsthesia, were of the calibre of a silver quarter. Pyloric spasm he regards as an hypothesis rather than a condition. The majority of his ulcer operations were for the thick based, chronic type, with very satisfactory results. The thickened plaque aided in diagnosis, as also did the so-called "sentinel enlarged gland of Lund," near the ulcer in either the lesser or greater omentum.

It is important to note that 60 per cent. of their malignancies had a previous history of ulcer, and in two cases actual cancerous degeneration of the ulcer edge was observed; a potent argument for the excision of this type when practicable.

All ulcers located, were to the right of a vertical line drawn through the cardia—with a few rare exceptions of hour-glass stomach. Ulcers of the cardiac end are so rare and the motility of that part so limited, as shown by Cannon's bismuth and X-ray tests, that operation in this region is rarely indicated. 109 operations for cancer of the

stomach are recorded: mortality, 15.6 per cent. There were 34 palliative operations. If gastro-enterostomy for very advanced cases, (30 per cent. mortality) were excluded, the statistics would be still better.

The author strikes the key note to the whole situation when he says "Late diagnosis and cachexia make the aspect of these cases discouraging. Palliative operations predominate with considerable mortality and no great prolongation of life. The hope of the future lies in early exploration, and the necessity for this is ascertained by clinical observation rather than by laboratory methods, which, too often, become valuable only when the extent of disease renders the case hopeless."

The presence of a tumor does not, *per se*, prove inoperability; neither do symptoms of obstruction necessarily mean cancer. On the contrary, extensive carcinoma of the body of the stomach may exist with no obstruction. These are usually incurable cases. Mayo believes, with Murphy, Ochsner, Lebert, Graham, Dunn, and others in the etiological relation of gastric ulcer in production of carcinoma. He has demonstrated that the radical operation for pyloric cancer, except in the rare cases discovered very early, has hitherto been in reality only a palliative procedure. Out of his 109 operative cases, the greatest prolongation of life was 3 years, 7 months. The average being somewhat more than one year. This corresponds with a statement which the writer heard from Ferguson, of Chicago, last summer, who said while performing a pylorotomy, that out of approximately 50 such operations done within the past 11 years, but one, and that, strangely enough, his first, still survived—no doubt it was operated in a very early stage.

The thoroughness, however, of such operations as Mayo's present method, together with earlier diagnosis, would appear to offer hope of better results in the future.

This technique consists in removal, not only of the pylorus, but the entire pyloric end of the stomach back to a line, designated by Mayo as the "Mikulicz-Hartmann" line, together with the gastrohepatic omentum (except the extreme right hand border with the hepatic artery, portal vein and common duct) and the gastrocolic omentum from the pylorus to the "Hartmann" point (midway of the greater curvature). The gastro hepatic being ligated close to the liver and the gastrocolic near the transverse colon, all the lymphatics in

the upper and lower pyloric set are removed with the pyloric end of the stomach, and (cancer of the pylorus rarely extending to the left of the Mikulicz-Hartmann line) the prospect of complete removal of the entire growth with all infected glands is good. The ligation of each omentum as far as possible from the stomach is important, as it insures thorough removal of the adjoining filter glands and lymphatics, while ligation near the curvatures leaves them behind.

The "Mikulicz Point of Election" is that for ligation of the gastric artery just as it reaches the lesser curvature, and the "Hartmann Point of Election" is that which he chooses for ligation of the gastro-epiploica sinistra, about midway of the great curvature and just to the left of the pyloric glands in the gastrocolic omentum. The Mikulicz-Hartmann line connects these points across the stomach and is the left line of resection in Mayo's partial gastrectomy. The right line of resection being to the right of the pylorus. This resection is considered efficient by Mayo and carries less mortality than the more extensive one where only the stomach dome is preserved, the latter procedure being reserved for cancers of the body or cardiac end, which are rare.

In those cases of resection where duodenal and stomach stumps can be united, without undue tension, Mayo advises complete closure of the stomach and implants duodenum into the lowest available sound space on the posterior stomach wall, instead of into the suture line, thus avoiding the danger of leakage at the so-called "fatal suture angle," where the three lines of suture on stomach and duodenum join. When tension would be too great he advises the second method of Billroth, viz.: end closure of both stumps and gastro-enterostomy of lowest part of stomach, posterior or anterior, to the jejunum. Regarding gastro-enterostomy, a recent method devised by Mikulicz, whereby the loop formation of the anastomosed gut is eliminated and, hence, an element tending to "vicious circle" is avoided, deserves favorable consideration. Those interested will find a detailed description of this technique in an article by the writer in the current number of the *International Journal of Surgery* ("Results Obtainable by Operative Measures in Affections of the Stomach," *Annals of Surgery*, Dec., 1903).

In the paper, already referred to, by Murphy, (his comprehensive collection of references and statistics drawn from the



work of the most prominent surgeons of the world, must be omitted for lack of time). Murphy's own opinions concerning gastric cancer deserve some detailed attention. He says, in part, "The possibilities of surgery in carcinoma will not be materially increased by any improvements in technique, over the magnificent showing of Dr. Mayo's results in 109 cases with 15.5 per cent. mortality. The improvement in surgery of carcinoma of the stomach must come from: (1) The recognition and removal of the conditions which tend to the production of carcinoma; (2) Pronounced improvement in our diagnosis of the early stage; (3) Early radical removal. Before prophylaxis can be effected the clinician must answer a few questions. First. Are there precancerous pathologic conditions recognizable by a symptom complex? Second. What are they? Third. How are they to be treated?"

"The first may be answered: they are recognized. And as illustrated beyond controversy may be mentioned gastric ulcer and pyloric retentions with their sequences; cicatrices and gastrectases. Second. The pathologic conditions and symptoms. If we review the causes of carcinoma that have presented themselves, we find that the manifestations have not appeared, unless in the rarest circumstances, as a bolt from a clear sky; but have implanted themselves on a train of symptoms that have existed for months and even years. It is only fair to assume that these gastric irritations have played a prominent rôle in the production of cancer of the stomach, the same as the mild irritation of the pipe on the lip, the gall-stone in the gall-bladder, the impacted feces in the colon."

"The treatment of the pathologic conditions has been up to this hour grossly neglected, both by the surgeon and the physician, with a few exceptions, like the Mayo, Mikulicz, Czerny, Mayo Robson and Moynihan clinics. Improvement in the medical diagnosis has been immaterial, as far as positive knowledge is concerned, in the last decade and does not promise much for the immediate future."

"The questions to be asked now are: Do we recognize the transition from the precancerous to the cancerous condition? The answer is, No. Can we? Yes. First. How soon after the penetration of the basement membrane by the erratic epithelial cells are symptoms manifest, and what are the symptoms? Second. How soon after

the penetration of the basement membrane are the cells transmitted through the lymph spaces to the various filter glands and, finally, into the chyle duct? How do they pass the pulmonary capillaries? Where and how do they produce elective metastases? Until these questions are answered, there will be little improvement in our surgical results with carcinoma ventriculi. The solution of these pathologic questions cannot come from post-mortem examinations, except in cases of accidental death in the early stage of gastric cancer. They must be determined on the surgical table. (a) in operations for the pathologic conditions leading to cancer; (b) in explorations for suspected cancer, accompanied by explorative gastrotomy."

Murphy argues that a "large longitudinal gastrotomy" is practically without danger and is necessary to the accurate diagnosis (by allowing direct inspection of the gastric mucosa) of cancer in its early stages. He also says that the rapidity and frequency of transmission of cancer from the original focus to the neighboring lymph spaces and glands is in direct ratio to the richness of the lymphatic supply: hence, greatest on the lesser curvature and pyloric area and least along the greater curvature.

In Moynihan's recent contribution to stomach surgery, "*One Hundred Cases of Gastro-Enterostomy for Simple Ulcer of the Stomach and Duodenum.*"—*Annals of Surgery*, May, 1904, he reports 100 gastro-enterostomies, up to October 1, 1903, for ulcer of the stomach and duodenum out of a total of over 160 operations of various kinds in that region. The gastro-enterostomy mortality was 2 per cent., the best so far recorded by anyone: Carle and Fantino standing next, with 3.8 per cent. death rate among 27 gastro-enterostomies for pyloric stricture. One of Moynihan's fatal cases was operated for gastric hemorrhage; the other was due to post-operative retroperitoneal strangulated hernia of nearly all the small intestine into the lesser peritoneum, through the rent made in the mesentery of the transverse colon in order to do a posterior gastro-enterostomy. He admits being aware, while operating, of making a larger tear in the mesentery than usual. He found, with Mayo, the vast majority of gastric ulcers on the pyloric third of the stomach wall. With increasing experience he discovered a larger percentage of combined gastric and duodenal ulceration than formerly. In his last 50 operations multiple

ulcers were found 22 times. Clinically, pain was the most constant and distressing symptom, occurring with no fixed regularity as to time after eating. He also noted in some cases a "hunger pain," 2 to 4 hours after a meal which was relieved by taking food. It was always associated with hyperchlorhydria. Vomiting occurred in 46 per cent. of his cases. 15 operations were done on account of hemorrhage, which was also noted in 21 other cases. Hæmatemesis and melæna were associated in 6 cases: 4 were gastric ulcers only; 2, both gastric and duodenal. There was melæna alone in 3 cases, all of which had duodenal ulcer. Recurrence and amount of hemorrhage were the factors determining operation in hemorrhagic cases. He considers gastric distension, with consequent stretching of the ulcer, the cause of recurring hemorrhage. In all hemorrhagic cases, gastroenterostomy only was done, with no recurrence of bleeding.

Comparing the respective merits of excision and gastro-enterostomy, Moynihan says that, personally, he prefers excision if the ulcer can be readily found, but in any case, he does gastro-enterostomy as well. He admits that it may be difficult or impossible to locate the lesion and that it may not be single; so that if one be found and excised, another one or more may remain and be the source of fatal hemorrhage; two cases of this sort being on record. Moynihan does not approve of pyloroplasty. He had experience with so-called "vicious circle" three times (none fatal), and considers the two chief factors in its production to be (1) failure to make the anastomosis at the lowest practicable part of the stomach; (2) a kink in the jejunum at the point of anastomosis. Post-operative pneumonia, he regards as usually of septic origin and recommends a prophylactic use of oral antiseptics for 48 hours prior to operation and use of sterilized liquid food for the same period.

Illuminating contributions to the dark field of typhoid perforations are made by Richard H. Harte, Harte and Ashhurst, and Chas. A. Elsberg in the *Annals of Surgery*, June, 1903, and January, 1904. Harte reports 3 recoveries among 13 personally operated cases, and after reviewing his own work, together with a large series of cases collected from others, concludes that there are three essentials to success in these desperate cases: (1) early diagnosis; (2)

prompt operation; (3) rapid and yet thorough technique.

Cardinal points in diagnosis are: pain, sudden and severe; tenderness; and muscular rigidity. Availability of these symptoms for diagnosis depends largely on the care with which abdominal conditions have been noted throughout the illness, giving a basis for comparison. He advises incision in outer edge of lower right rectus, because perforations are nearly always in cæcum or terminal few feet of ileum: that is in lower right abdominal quadrant. This incision shows 10 per cent. better results than a median one. Perforations are necessarily in friable tissue and sutures for closing them must be placed well away from the margins.

Operative technique ranges from purse string or matress sutures to omental patches, gauze packs, artificial anus or even resection. Great stress is laid on rapidity of execution.

For cleansing peritoneum, Harte strongly recommends flushing with hot saline; then with equal parts hydrogen peroxide and saline, followed finally by the hot saline again. The flushing done through a large tube carried well down into the pelvis. Drainage is effected by a number of gauze wicks in different directions, with but little attempt at closure of abdominal wound. Out of 332 collected cases, covering four decades, the mortality in the first was 90 per cent. among 10 cases; 69.1 per cent. in 46 cases during the last decade. Average for the 4 decades, 73.9 per cent.

Elsberg's paper considers the same subject in reference to childhood. A series of 25 cases from 6 to 15 years old is reported with the following conclusions: (1) typhoid perforation is nearly as frequent between those ages as in adults; (2) symptomatology is practically the same; (3) treatment should be surgical as soon as diagnosis is made; (4) *prognosis is more than twice as good as in adults.*

Concerning intestinal perforations in general, two valuable contributions have appeared within approximately the past year. "Gastro-intestinal Perforations and their Diagnosis" by F. Gregory Connell, in the *Journal of the American Medical Association*, March 28, and April 4, 1903; and "Treatment of Penetrating Wounds of the Abdomen. With Report of Sixteen Cases," *Annals of Surgery*, March, 1904, by Malcolm L. Harris. Connell emphasizes a certain risk in explorative incision and pro-



poses, as a substitute in cases of suspected perforation, introducing two trochars through the abdominal wall into the peritoneal cavity and forcing through them filtered air, or preferably sterile salt solution and subjecting the returned medium to tests for the presence of such constituents of intestinal contents as sulphur, ammonia, nitrates, indol, bile, etc.

A series of experiments on animals seemingly proved the accuracy of Connell's ingenious method. Practical objections to it might be the occasional inability to obtain the necessary reagents, and the possibility of traumatism to intra-abdominal organs by the trochars.

In demonstrable penetrating wounds Harris would rely for diagnosis absolutely on explorative incision. Omitting the interesting cases and convincing arguments, his conclusions are as follows: (1) That there are no *early diagnostic symptoms* of injury to abdominal viscera or organs except when hæmatemesis, hæmaturia, or melæna may indicate traumatism of the stomach, bladder or lower bowel; (2) except shock (which may accompany any severe injury) all symptoms of penetrating abdominal wounds relate to hemorrhage or peritonitis; (3) waiting for symptoms of perforation, means waiting for peritonitis or severe hemorrhage; (4) all penetrating abdominal wounds, except perhaps, modern military gun shot wounds should be operated upon immediately; (5) no time should be wasted by rectal insufflation of gases or vapors, or by analysis of re-collected injected air or liquids; (6) it is essential to systematically examine the entire gastro-intestinal tract regardless of the point of entrance of the wounding body; because the motility of the intestines may carry them far from the line of penetration, and thus from probable injury; (7) where the alimentary tract has been perforated, *always drain*, preferably by cigarette drains.

George H. Monks contributes to the *Annals of Surgery*, October, 1903, a valuable paper on "Intestinal Localization." The importance of quickly determining, when dealing with intestines, which is the proximal and which the distal end of a given loop, and its approximate relative position in the intestinal tract appeals to all surgeons. Methods of exciting and observing peristalsis are sometimes futile or misleading—as in the case of reverse peristalsis. Tracing the gut to one or the other end is tedious, and shock pro-

ducing. Monks suggests as a substitute for these tests, one based on the anatomical fact that the root of the mesentery of the free small gut occupies a base line about 6 inches long, extending from the left of the second lumbar vertebra downward and to the right to opposite the right sacro iliac synchondrosis. Each section of mesentery, when freed of twists and held up taut, must therefore face practically right and left; then the upper end of the corresponding loop must be proximal and the lower distal. Again imaginary lines at right angles to the extremities of the mesenteric root line will divide the abdomen approximately into three zones—upper, middle and lower—in which will be found respectively the corresponding thirds of the small intestine. Moreover, the vascular supply of the gut through the mesentery affords valuable hints as to the probable section of intestine under consideration. The vessels are arranged in terminal loops, those in the upper third consisting chiefly of one row—primary loops. In the middle third there is a superimposed row nearer the bowel, called secondary, and in the lower third there are primary, secondary and tertiary loops, in fact a net work. The details, of which the foregoing are but a brief skeleton, are well worth careful study by the operator doing abdominal work.

The recent "Kocher gastro-duodenostomy," which is rendered possible by division and reflection inward of the parietal peritoneum just outside the duodenum, allowing rotation medianward, on its long axis, of the normally fixed middle portion, has called forth in the past year a proposal from Berg, *Annals of Surgery*, August, 1903, to substitute this method of reaching the lower end of the choledochus for removal of impacted calculus instead of the McBurney transduodenal route. Summers, *Annals of Surgery*, May, 1904, also recommends and reports using this route to repair retro-duodenal perforations and traumatisms. The fact that the middle third of the duodenum may be thus safely mobilized and, if desired, again returned to place is of value in some contingencies in that region.

Gall stone surgery calls for little notice here, because there is but little margin now for progress. Perhaps the most notable recent trend is toward making a diagnosis, in a considerable proportion of cases, without any of the typical gall stone symptoms; but on the strength of the symptom complex of obstinate, chronic indigestion. A series of explorations by Ochsner and others, on this

basis, have shown the correctness of their supposition that while the *symptomatology* pointed to stomach or duodenal lesions the *pathology* was, in reality, connected with the bile tracts. Again there is the growing tendency in affections of the gall-bladder toward what may be termed radical operation, viz., cholecystectomy, as compared with cholecystostomy. A recent resumé of the results of 720 gall stone operations by Kehr, since 1893, shows that in his first series of 360, there were 20 per cent. of cholecystectomies and 54 per cent. of cholecystostomies. In the last series of 360 cases cholecystectomies were 64 per cent. against 20 per cent. of cholecystostomies. Drainage of the *hepatic* as well as common ducts is also being more than ever resorted to in calculus cases. Kehr now makes the claim of ability to diagnose, prior to operation, in nearly all cases, the exact pathology of bile tract lesions—a wondrous diagnostic acumen—inasmuch as Mayo Robson made the statement about the same time that practically all gall stone operations must begin as explorative incisions.

In the *Journal of the American Medical Association*, July 25, 1903, Wm. J. Mayo reports 35 cases of umbilical and ventral hernia, treated by omphalectomy and overlapping the aponeuroses of the recti, with no mortality and only a partial recurrence in one case. Most remarkable results compared with other methods as to permanency and safety. In the first 10 cases the overlapping of aponeuroses was lateral; in the remaining 15 vertical. The vertical overlapping is preferred by Mayo in the majority of instances, because there is generally associated with umbilical and ventral hernia a pendulous condition of the abdominal walls and the overlap from above downward takes up this slack. In one case of the writer's (a combined umbilical and ventral hernia) omphalectomy left so large a defect that lateral approximation was impossible while a vertical overlapping of about one-half inch only was secured. The returning of some intestinal coils to the abdominal cavity, together with shortening the walls, increased intra-abdominal tension to a considerable extent. On examining the patient five months later, he had developed a left inguinal hernia where none existed before, while the operative field remained intact. This case is mentioned in proof of the secure union obtained by even slightly overlapped aponeurotic surfaces.

Willard Bartlett, in the *Annals of Surgery*, July, 1903, reports the use of a new

silver wire filigree for implantation in large defects of the abdominal walls. The principle of some such artificial reinforcement of the walls by a silver wire framework is not original with Bartlett, but is an evolution of the work of Schede and Witzel of Bonn, who in 1900, wove silver wire irregularly back and forth in a wound as a basis for the growth and strengthening of the parts. They were followed by Göpel, of Leipzig, who wove a more uniform mesh of wire *in situ*, while about two years since, Willy Meyer, of New York, substituted ready made rectangular meshed filigree for the same purpose. Bartlett finds that the ready made mesh is too stiff and board-like, interfering with active motion of the abdomen, and has devised a filigree consisting of a series of as many parallel wire loops, of a suitable length, as is necessary to fill the gap. These loops very much resemble double bow knots and are united only by a single wire at the middle of each bow. Being implanted with the loops' axes coincident with the tendency of the wound to separate, they fulfill all the reinforcing requirements of the square mesh and at the same time possess a much greater pliability.

Most American surgeons favor and practice some form of perineal prostatectomy, and consider the supra-pubic operation obsolete. Freyer, of London, has, however, recently revived the later method, by a slight though very important modification of the old Belfield-McGill procedure. He makes an opening into the bladder only large enough to pass one or two fingers, nicks the mucosa over the posterior of the prostate and without any instruments enucleates the gland, either entire or as two lateral lobes; the operation taking from 4 to 8 minutes. The method is particularly applicable to the adenomatous, as contrasted to the fibroid type of hypertrophy. The originality due to Freyer, which is also the key to the success of the operation, lies in the recognition of a true fibrous capsule, intimately adherent to the prostate and an enveloping sheath (layers of the rectovesical fascia) between which there is a natural line of cleavage, permitting of rapid enucleation.

A year ago the writer had an opportunity to inspect the prostates removed by Freyer; 46 in about two years, with three deaths, and, as stated by the operator, complete restoration of bladder function in the surviving 43, usually within a month.



Mr. Moynihan reports in the *Annals of Surgery*, January, 1904, 12 cases operated by the Freyer method, except that he deliberately brings away the prostatic urethra with the gland. He says that the immediate and remote results have been satisfactory. Should further experience confirm Moynihan's contention that the entire prostatic urethra may safely be sacrificed with the gland, the operation of prostatectomy either suprapubic or perineal will be much simplified.

Unless municipal, state or national legislation intervenes, we must soon recognize a department of Fourth of July surgery. According to the *Journal of the American Medical Association*, of August 29, 1903, there were 4,449 persons known to have been injured by the celebration of the "Glorious Fourth" last year, 446 of these died; 406 of tetanus, almost, without exception, resulting from blank cartridge wounds.

An editorial in the same paper recommends, aside from *prophylactic legislation, prophylactic treatment* of the wounded: (1) by thorough antiseptic toilette of the wound, removal of all bits of wad, etc.; (2) prompt use of tetanus antitoxin in all *blank cartridge injuries*. Emphasis is laid on the unusual tendency toward tetanus in this class of wounds and that the antitoxin to be remedial must be actually prophylactic, *i. e.*, used before symptoms develop, for when symptoms of tetanus are manifest, the patient is not simply *beginning* to have the disease; but is *dying* from it. The intraspinal method of injection is recommended instead of the intra-cerebral, as safer (not requiring trephining) and more effective, as the poison is supposed to travel by the nerve sheaths, instead of the blood stream, and so reaches the spinal cord before it reaches the brain. The subject is one of great importance, especially as the fatal season approaches.

Nothing should interest the surgeon more than the question of shock and the best methods of combating it. Crile's recent studies and experiments have thrown light on an obscure subject. Inasmuch as shock is always accompanied by exhaustion (not merely depression) of vaso-motor centres, with consequent lowered blood pressure, he consistently argues that efficient remedies must cause increased blood pressure. His experiments on animals show that the whole series of so-called heart stimulants, such as digitalis, strychnine, etc., fail to do this, in other words they cannot whip up exhausted vaso-motor centres. The efficient remedies

in his opinion are venous transfusion of normal saline (best combined with adrenalin in proportion of 1 to 50,000 or 1 to 100,000) in quantities of 1,000 c. c. and upward, repeated at proper intervals on account of their rapid elimination, with due caution as to overdose of adrenalin and consequent inhibition of the centres,—the antidote for adrenalin being atropine. In addition he recommends exsanguination of the limbs, by bandaging, or by his inflatable rubber suit—and finally external heat.

Unfortunately, too many, otherwise careful surgeons, omit previous preparation and constant readiness, in all major operations, to cope with surgical shock immediately on its appearance.

The present status of emergency cardiac surgery; the Matas method of obliterating aneurism by suture of the walls; the Ochsner treatment of appendicitis, when inflammation has extended beyond the appendix; recent results of nerve anastomosis for paralysis; new and ingenious operative methods for benign stricture of the œsophagus and many other interesting features of progress in surgery deserve more than brief allusion, but the space already given to other subjects compels the writer to pass them without detailed description.

## VIBRATORY MASSAGE IN GENERAL PRACTICE.\*

BY WM. GRAY SCHAUFFLER, A. M., M. D.,  
LAKEWOOD, N. J.

Vibratory Massage, or as it should more correctly be called, "*Mechanical Vibratory Stimulation*," is a therapeutic factor of such recent date, that there has been as yet very little authoritatively written on the subject. It is my purpose in this paper to give you in as few words as possible an idea:

I. Of what Mechanical Vibratory Stimulation is.

II. What it can be used for.

III. How to apply it.

IV. What we may expect from its use.

For the definitions used I have drawn largely on the late Dr. Maurice F. Pilgrim's valuable little book, "*Mechanical Vibratory Stimulation, its Theory and Application in the Treatment of Disease*."

\* Read at the 138th Annual Meeting of the Medical Society of New Jersey.

Physiology teaches us, that "pressure exerted on a nerve causes it to vibrate, or increases its natural impulse." With this fact as a guide it has been shown that various degrees of pressure elicit corresponding rates of nerve vibration. When to the mechanical pressure exerted is added artificial vibration by means of some mechanical contrivance so arranged as to give many hundred strokes per minute, we find the "natural impulse" of the nerve to vibrate even more increased. Finally, having at hand an ingenious mechanism by means of which we can at will increase or diminish both the frequency and the power of the stroke, we find it within our power to gently stimulate a given nerve, to cause it to vibrate forcibly, or even to produce inhibition therein.

These effects correspond to the terms used in treatment, viz., stimulation, vibration, vibratory stimulation.

To quote from Dr. Pilgrim: "*Stimulation* is produced by a medium stroke and light pressure. This is the degree of treatment that will be found most efficacious in the majority of cases for increasing the blood supply to a given part and improving nutrition and the general tone. It is always applied with the brush.

"*Vibration* is produced by a heavy stroke and deep pressure. It should only be applied to inhibit a nerve that is communicating a sensation of pain, and to relieve congestion or engorgement of an organ. For this the ball is used.

"*Vibratory Stimulation* is produced by a medium or fairly heavy stroke and varying pressure, and will be found preferable where there is pronounced inaction or atony. It should be applied to the spine by means of the ball. For this degree of treatment tolerably deep pressure is advisable."

Such a variety of conditions seem amenable to treatment by means of vibratory massage that were I to enumerate them all, you would accuse me of trying to exploit some quack "cure all."

The earnest worker along these lines of therapeutic research is astonished beyond measure at the results obtained in the most varied classes of cases. It has been found by careful experiment that the following list compiled by Dr. Pilgrim is a conservative one.

Mechanical Vibratory Stimulation is capable of:

1. Increasing the volume of the blood and lymph flow to a given area or organ.

2. Increasing nutrition.
3. Improving the respiratory process and functions.
4. Stimulating secretion.
5. Improving muscular and general metabolism, and increasing production of animal heat.
6. Stimulating the excretory organs and assisting the functions of elimination.
7. Softening and relieving muscular contractions.
8. Relieving engorgement and congestion.
9. Facilitating the removal, through the natural channels of the lymphatics, of tumors, exudates and other products of inflammation, relieving varicosities and dissipating eruptions.
10. Relieving and inhibiting pain.

In order to get proper results the physician must provide himself with an instrument which will fulfil the following requirements: It must be easily and conveniently handled. It must be under such perfect control, that the exact length of stroke and degree of pressure wanted can be instantly available. It must transmit to the patient all the vibrations produced. An instrument which will fulfil all these requirements must in my opinion be constructed with a rigid arm, carrying the motive power at its working end.

My own work has been done with a "Chattanooga Vibrator," which fully answers all these requirements.

The method of application is simple. The patient removes all tight clothing and lies prone on a suitable couch or low operating table, thus giving the operator easy access to the spine. In many cases I have found it unnecessary to remove the clothing, thus adding to the patient's convenience. This is especially advisable with a new and nervous patient.

The length of stroke and amount of pressure to be used, having been determined upon in each case in advance, the operator then proceeds to apply the vibration to the spots needing it. Holding the motor in my right hand, I use my left thumb and forefinger as a guide, never applying mechanical pressure without first having thus tested the spot. In this way I avoid much unnecessary discomfort to the patient. The length of time required for each treatment varies from 4 to 8 minutes, rarely more. After rising from the couch, I insist on the patient's reclining



in a low chair for a few minutes of rest and relaxation.

While I frequently stimulate the various organs locally, the larger part of the treatment is applied to "the interstices of the transverse processes of the spinal vertebrae, which are immediately over the posterior division of the spinal nerves." The general theory upon which this treatment is based, being that all the functions and organs of the body are controlled by certain nerves or nerve centres located principally in the spinal cord, and that in the course of disease, if these centres are reached and treated, restoration to normal action may be expected in most cases.

The results of my experience with Mechanical Vibratory Stimulation are best shown by giving you a few typical cases:

CASE 1.—Miss A. M., 70, housekeeper. Suffering from chronic neuritis of left arm. Beginning in August, 1903, there had been suffering from pain in left shoulder and arm. She had tried, under various physicians' directions, almost everything ordinarily used for neuralgia and rheumatism, including massage, static electricity and hydrotherapy. She had been confined to her bed with pain, and her arm and hand had become almost useless. I commenced vibratory massage on February 18th, and the patient was relieved almost immediately of the worst pain. After the third treatment she was able to go about her ordinary duties with comfort. The treatment given was at first stimulation and then vibration of the sensitive areas in the left mid-dorsal region; followed by general stimulation of the whole spine, and rather heavy percussion over the liver area. This latter procedure very soon overcame a tendency to constipation. During this treatment all other therapeutic agents were stopped. After about twelve treatments, this patient was so much improved that she has since come to my office only at infrequent intervals.

CASE 2.—Mrs. H. C., 28, singer. Highly nervous temperament and suffering from marked neuroathenic symptoms. Examination showed numerous very tender spots on both sides of the spine, especially in the mid-dorsal and lumbar regions. Patient was unable to walk any distance without great fatigue. Digestion poor, bowels constipated. Menstruation painful and scanty.

Mild stimulation was first applied to entire spine, followed by fairly strong vibration to sensitive areas and percussion over the liver. Improvement in the general condition was apparent after three treatments. The sensitive spots were less painful. Appetite and digestion improved. The patient took long walks comfortably, and menstruation was much easier. The general improvement showed itself quite markedly in her ability to use her voice with greater ease and effect.

CASE 3.—Mrs. H. R., 65. General nervous debility following protracted illness and mental strain. Chief symptoms, mental depression, and inability to walk much or be on her feet, owing to feeling of weakness in lower part of back and abdomen. This patient received twelve treatments in the usual manner, which so greatly improved her condition, that she was able easily to accom-

plish her regular routine of household duties, and to do many things from which she had long refrained on account of weakness.

CASE 4.—Miss M. S., 38. Coccygodynia. Typical symptoms following prolonged reclining in a steamer chair at sea; especially pain and discomfort on rising from sitting posture. Rectal examination showed very marked tenderness of the coccyx on any attempt to move it.

The special rectal appliance of the vibrator was used and gentle vibration applied through the rectum directly to the hollow of the coccyx. Sixteen treatments were given with the result of entirely relieving the pain on rising and sitting down. The treatment itself was painless.

CASE 5.—Mr. D., 50. Painful protruding hemorrhoids. Patient came to the office in great distress with a mass of protruding hemorrhoids, inflamed and very sensitive. Putting him in Sym's position, the rectal attachment was thoroughly lubricated and gently applied to the inflamed mass. Using but light pressure, with a short stroke, the protruding masses quickly gave way, and the instrument followed them through the sphincter, where the vibration was kept up for about 2 minutes. On rising from the couch, the patient found that all pain had disappeared; and a second treatment on the following day gave entire relief from the condition.

CASE 6.—Mrs. E. D., 25. Physician's wife. Goitre. For three years the patient had been conscious of a steady enlargement of the thyroid gland, in spite of constant medical treatment. There is now a marked enlargement of the left lobe of the thyroid, with commencing enlargement on the right side. Interference with respiration and deglutition was so pronounced that the patient came complaining of "sore throat," of which, however, no internal signs were present.

The brush attachment was applied over the enlarged gland and up to the angles of the jaw, also over the axillary regions and the breasts. The spine was thoroughly vibrated, especial attention being given to the lumbar and sacral regions, as the patient suffered from severe dysmenorrhoea. As the result of fifteen treatments, the swelling of the thyroid has grown noticeably less, (by actual measurement  $\frac{3}{4}$  of an inch). All discomfort of the throat, including a hacking cough, has disappeared, and she passed her last menstrual period with scarcely any pain or discomfort. She continues under-treatment.

I have picked out these six cases at random from between twenty and thirty cases, which I have had under treatment during the past year, as giving a fair idea of the variety of conditions suited for vibratory massage, and the average results obtained. A few individuals have failed to derive any benefit after two or three treatments, and were advised to stop, and in two cases even the mildest stimulation proved too severe.

Judging from my own experience vibratory massage should have a well defined place as a most valuable aid to the general practitioner, enabling him successfully to treat a large class of cases, which he has heretofore thought it necessary to turn over to specialists or send to sanitarium.

## News from the County Societies.

The Morris County Medical Society held its quarterly meeting in the rooms of the Board of Aldermen, at Morristown, December 13th. Dr. Harry M. O'Reilly, the president, presided. The main feature of the meeting was a paper prepared by Dr. Harry Vaughan, on the treatment of diseases of the eye, ear and throat. Interesting cases that had come under the observation of members of the society during the last three months were discussed, and at 1.30 P. M., adjournment was made for dinner. The officers of the society, in addition to Dr. O'Reilly, president, are: Dr. H. A. Cassatt, State Hospital at Morris Plains, vice-president; Dr. H. W. Kice, of Wharton, secretary; Dr. James Douglas, of Morristown, treasurer.

### GASTRIC ULCER.

*Read before the Burlington County Medical Society.*

BY ALEXANDER MARCY, JR., M. D.,  
Second Vice-President, Medical Society of N. J.

Gastric Ulcer is always an interesting subject to the general practitioner, and the perforating variety particularly so, as it is not infrequently met with and demands the most prompt and radical treatment. The pathogenesis of gastric ulcer has occasioned much dispute; and no one condition can be ascribed as the invariable cause. The digestive action of the gastric juice on parts of lowered vitality, the increased acidity as found in chlorosis, etc., are undoubtedly important contributory causes, but in the perforating variety embolism or thrombosis with infarction is probably the most potent factor. These ulcers are usually found in young women, housemaids, nurses, etc., who are anemic, and whose general health is much below par. The ulcers are commonly situated in the lesser curvature and the posterior wall of the stomach, near the pylorus, occasionally they are found at the fundus, or at the cardiac end. When the ulcer is in the anterior wall, perforation is more liable to occur. The rupture may establish connection with the peritoneal cavity, or with any of the surrounding viscera, and fistulous openings may be established into the pleural or pericardial cavities, or even with the exterior surface of the body through the abdominal wall. Abscess of the liver, spleen, or pancreas may result from perforation into these organs.

The symptoms of gastric ulcer are well known to all of you. They are tenderness on pressure, vomiting and hemorrhage. Pain is one of the most constant. It occurs almost immediately after taking food; especially hot, highly seasoned or indigestible articles. It varies greatly in intensity and is commonly located in the epigastrium near the xiphoid cartilage, less often at a point behind the shoulder. Tenderness on pressure is a characteristic symptom apart from the paroxysms of pain. The tender point is more frequently an inch or two above the umbilicus. Hemorrhage is the most valuable sign of gastric ulcer. Given a copious hemorrhage of pure, red blood from the stomach, with pain and tenderness, it can scarcely be due to any other cause. In a large hemorrhage black blood may also be found in the stools.

Where you have these symptoms and have diagnosed a gastric ulcer, should perforation occur, it ought not to be a difficult matter to recognize the condition. But not infrequently the first evidences you have of ulcer are the symptoms produced by perforation. The symptoms of perforation of the stomach are not different from perforation of other hollow viscera, and depend somewhat upon the location of the ulcer, and the contents of the organ at the time of perforation, as well as the condition and temperament of the patient.

Broadly speaking, however, you have sudden, severe, persistent pain at or near the xiphoid, occasionally extending through to the back, and radiating from this centre in all directions. You have a very rapid pulse, pinched, anxious expression, extremities cold, temperature perhaps sub-normal; in other words, the condition known as shock; in some cases profound, in others very slight. Occasionally these symptoms are not sufficiently pronounced for you to recognize them and the first serious symptoms are those of septic peritonitis. Granted a case of suspected gastric ulcer in which the symptoms of shock suddenly appear, what is the proper method of treatment? Since the introduction of asepsis and antiseptics into surgery, gastric ulcer has become a disease to be dealt with by a surgeon and certainly the only method offering any hope of success in cases of perforation is prompt operative interference. This must be done as promptly as possible, in fact, time is of the utmost importance, so important that a delay of a few hours may mean the loss of your patient.

Bearing upon this point let me quote from a paper of Dr. Robert F. Weir, of New York. Cases operated on under twelve hours after perforation: recovered, fourteen; died, nine; mortality 39%. From twelve to twenty-four hours after perforation: recovered, four; died, thirteen; mortality, 76%. Over twenty-four hours after perforation: recovered, four; died, twenty-eight; mortality 87%.

The brief history of several cases will best illustrate conditions as we actually meet them in our practice.

Case One: Reported by Dr. J. H. Musser in a recent number of the *Journal of the American Medical Association*. A patient who had been suffering from symptoms of gastric ulcer for more than a year, was seized with sudden pain in the median line or to the right between the xiphoid cartilage and the navel, followed by shock. Dr. Musser saw her within a half hour, there were pain, tenderness, vomiting, rapid pulse, etc. Perforation was suspected and an operation advised, which was done five and a half hours later by Dr. Keen. The perforation was found in the middle of the pylorus anteriorly. The patient made a good recovery, although over seventy years of age.

Cases two and three are reported to me by Dr. Malcolm S. Councill, of Bryn Mawr.

Case Two: John C., white, aged nineteen, driver, never ill since infancy. While walking along the road singing, felt a sudden severe pain in the right side, causing him to drop as if shot. There was great difficulty in breathing. The pain continued for several hours, in spite of all efforts to relieve him. He was taken to Bryn Mawr Hospital and operated upon with the idea that he had appendicitis. On opening the abdomen the appendix was found to



be practically normal but gastric contents were found in the peritoneal cavity. A perforating ulcer about one-quarter of an inch in diameter was found on the anterior, inferior surface of the stomach, near the pylorus. The patient made a perfect recovery.

Case Three: White, female, aged twenty-two, laundress, received at the Bryn Mawr Hospital, May 2nd, 1903, 9.30 A. M. Physical examination showed septic peritonitis. The abdomen was opened and gastric contents were found free in the cavity. A perforation admitting the end of the little finger was found on the anterior surface of the cardiac end of the stomach. This was closed and the patient did well for eighteen days, when fecal vomiting developed and a second operation was done, but the patient died four days later. This girl had felt uncomfortable and had vomited several times during the week preceding the operation; but her history was negative as regards symptoms prior to this time.

Case Four: Occurred in my own practice and was reported by me to this Society some time ago. A. B., a young Irish girl, aged 34, was taken sick on Friday, June 1st. I was asked to see her as soon as possible, as she was suffering considerable pain. Being engaged at the time I asked my assistant to see her for me. He reported her as suffering severe pain in the abdomen and back, supposedly post-menstrual. She had slight fever, but presented no evidence of serious illness. I saw her at 2 P. M. the following day and found her critically ill from septic peritonitis, temperature 103½, pulse 130, abdomen distended and very tender. Vomiting was present and a pinched and anxious expression of countenance. As she was a nurse maid, and was sick in the third story of a boarding house, I concluded that the best thing for her was removal to a hospital, and had her sent to the German Hospital at once. At the hospital they considered her condition too critical for operation, and she died on the third day after admission.

The autopsy revealed a perforating round ulcer of the stomach as the cause of the peritonitis. This girl believed herself perfectly well until the day I was first sent for, and at no time did she exhibit a single symptom of ulcer of the stomach.

It has always been a source of great regret to me that this patient was not operated on; as it would have at least given her a chance to have gotten well.

In discussing quacks before the Society of Medical Jurisprudence in New York City the other evening Champe S. Rogers, who has for five years been the society's counsel, said that in that time 500 convictions of medical charlatans have been secured, \$90,000 in fines been collected and an aggregate of twenty years' imprisonment been imposed upon offenders. One peculiar item in the equipment of such quacks in New York City, it appears, is the taking of the names of dead physicians of repute and going into practice in some different part of the city, on the chance of being undiscovered; also, said Mr. Rogers, certificates of physicians who have died are frequently sold by auction and often prove the most valuable assets their heirs find. Quacks make their money out of the poorest people and he mentioned one such who had made \$200,000 in a year.—*Journal American Med. Assn.*

## Hospital Alumni Society Reports.

### THE SOCIETY OF ALUMNI OF BELLEVUE HOSPITAL.

*Regular Meeting held at the Yale Club, New York, October 5th, 1904.*

### THE MANAGEMENT OF PUBLIC HOSPITALS.

ADDRESS BY THE PRESIDENT,  
WM. J. CHANDLER, M. D.,  
SOUTH ORANGE, N. J.

*Gentlemen of the Society of Alumni of  
Bellevue Hospital:*

Before presenting the subject of this evening's address, I desire to express my deep appreciation of the honor which election to the presidency of this society confers.

The names of my distinguished predecessors are held in the highest esteem. Their learning and professional ability, combined with their social acquirements and public spirit place them so far in the vanguard of the profession that I can only look up to them with a feeling of jealous emulation.

I must beg to remind you that in the choice of a presiding officer you have selected one, who, though always with you in the spirit, is for the greater part of the time far removed from you in the body. In the discharge of his duties as a member of the committee on science, he must bespeak an especial favor, viz., that you will honor at sight his drafts upon your literary productions, so that we may have an abundance of original papers and interesting reports and thus maintain the high standard of excellence already established for this society.

There is a subject of great importance to the community and of vital importance to us as practicing physicians—a subject often discussed, but as yet far from settled—a subject to which I wish to direct your thoughts for a short time this evening, not so much in the expectation that we shall here tonight solve this vexed question, but rather with the hope that by "here a little and there a little," another and perhaps different presentation of the subject may suggest some ideas which shall enable you to fashion an instrument which shall cut the Gordian Knot.

We are all of us quite familiar with the abuse of medical charities. Being *ex-inter-*

nes of one of the largest charitable institutions in the country and serving on the medical boards of hospitals and dispensaries at the present time, we are daily brought face to face with this evil, and while we recognize it and many of us have sought to remedy it, we have all thus far signally failed.

It does not, however, follow that the conditions are irremediable, and it may not be amiss to analyze these conditions and see if we cannot find some reasonable and logical correction for the abuses. Hospitals and dispensaries are the chief media through which medical charities are dispensed, and while they are much alike, there are certain important differences and I shall limit my discussion to the abuses as they relate to hospitals.

There are three parties concerned in the establishment and conduct of a hospital.

- 1st. The board of trustees or governors, who are the managers of the institution.
- 2d. The physicians who constitute the attending staff and do its medical work;
- 3rd. The community in which the institution is located and from which it receives its patients, as well as its means of support.

1st. The Managers. They are generally men of prominence in the community, who have given money to found the institution or have been selected for their influence or for their ability, especially in the way of raising revenue, and whose chief concern, outside of a generally satisfactory condition of the medical affairs, is that the income of the hospital shall at least equal its expenses. In order to attain this end they cut down the expenses in every possible way and adopt innumerable devices for obtaining money.

One of the most attractive of such devices and one which is spreading with dangerous rapidity is the establishment of pay wards and private rooms and of offering free medical and surgical services to all persons who will pay for these rooms. This is a most serious matter and one to which we must presently give more attention.

The rules of hospitals, however, vary. Some allow the attending physician to charge his patients in the private rooms, but do not allow him to charge the patients in the general wards, nor even to accept an honorarium from them, although they are able to pay their board to the hospital and are willing to pay the physician a moderate fee in addition. Other hospital boards leave such matters entirely to the discretion of the attending physicians, knowing that the men who give away so much to charity are

little likely to oppress the poor patients who come under their charge in the public wards of the hospital.

Again, the managing boards of hospitals are composed of men (or women) from various walks of life. Many of these boards have not a single representative of the medical profession in their number, and in other boards, where they are represented, the number is so small that they are easily outvoted and their influence is negated.

The second party concerned in the conduct of the hospital is the staff of attending physicians. This staff is made up of some of the ablest and most experienced physicians in the locality, and while ability is not always the sole basis for selection, it is so generally the case that an appointment on a hospital staff is regarded as an honor. The attending physician derives great benefit from the experience afforded in the hospital wards and from social and professional association with his colleagues. He is considered on this account as a more competent and desirable medical attendant, and is often selected as such for this very reason. This advantage forms a partial compensation for the valuable services he renders to the institution. His opinion is often sought and generally followed by the managers in arranging the sanitary and medical equipment of the hospital. If there are differences of opinion on these or other matters, the staff as the weaker body must succumb or sever its relations with the institution. The managers reason that if the members of the staff are dissatisfied they can resign, for there are plenty of others waiting to take their places and they do not hesitate to state that the members of the staff are well paid for their services in the prestige and experience accruing to their hospital connection. Many of you remember the case in this city where the whole staff resigned on account of an overbearing superintendent. The managers retained the objectionable official and very plainly stated that competent superintendents were difficult to obtain, but that they could always get doctors enough.

The attending physicians, aside from their hospital work, are busy men. They have a large outside practice and it not infrequently happens that an accident or an emergency case, requiring immediate operation, is brought into the hospital and has to wait for several hours before the busy attendant can be reached or his services obtained. This may imperil the life of the patient and often



brings harsh criticism on the hospital authorities.

The third party concerned in the conduct of the hospital is the community. It contributes to the support of the institution, either by a direct tax, if it be a municipal hospital, or by contributions, subscriptions, fairs, entertainments, &c. In any case it feels that it supports a charity and has a claim on its benefits. In many sections of the country a considerable portion of its income is derived from annual subscriptions, which are solicited by a house-to-house visitation. The individual subscriptions vary from a few cents to many dollars. It frequently happens that some of these smaller contributors wish to enter the hospital and receive treatment free. They claim that they are contributors and have a right to this privilege. They feel especially aggrieved if this is denied them, although they always pay a physician who treats them at their homes and would scout the idea of their being considered paupers. There is another element in the community, which, though not relatively numerous, demands a very considerable share of our consideration. It is the great bulk of our profession—the medical men who are not connected with the hospital staffs—the “outsiders,” as they are sometimes called. It is on them that the greatest burden of this abused charity falls. It is *their* patients that are sent into the hospital. It is *their* fees that are snatched away. Their feelings are not considered and they have hard things to say of the hospitals and of the hospital staffs. Their diagnoses are questioned, and their treatment criticized before the nurses and the house staff. The patient is allowed to feel that his malady has not hitherto been understood and consequently that he has been wrongly treated, and that had he sooner come under the care of the hospital physician he might have escaped much of his present suffering. A great and unnecessary injury is thus done to the “outsider.” He has already lost his fee, and is likely to lose not only the patient, but also the patient’s family and all its connections. I am loath to believe that this is of frequent occurrence. But it should *never* occur at all. We should never express our opinions before the patient nor form them from the patient’s statements alone. We should hear both sides. And even when our verdict must be unfavorable to the previous attendant, it is far better to screen his errors with the mantle of charity. Who of us is infallible?

My experience in hospital matters, leads me to believe that the considerate members of hospital staffs seek on all occasions to protect the reputation of their brethren outside, although they are often sorely perplexed to explain previous diagnoses and present conditions to the satisfaction of dissatisfied patients and questioning friends, and at the same time maintain a proper regard for truthfulness.

There is one remaining element in the community, viz., the patient, that deserves a moment’s consideration. The *poor* patient, the needy poor—God help him—deserves all the comfort and assistance that the charity hospital can give. For him the attending physician cheerfully and bountifully gives his skill and service. But what shall we say of those other patients, who, able to pay for medical care, obtain entrance to the hospital wards, either by simulating poverty, or through the carelessness or indifference of the hospital authorities and there receive board, nursing and medical attention without any remuneration?

Having now considered the three elements concerned in the charity hospital, having observed their natural affinities and their decided antagonisms, let us turn to the important question—how can these elements work together harmoniously to attain their object? What steps can we take to eradicate or mitigate the abuses? What changes in the management of hospitals will eliminate these and at the same time safeguard to the medical profession at large its rights and privileges?

The difficulties noted have arisen in part from the natural depravity of man, but also from the blind following of custom and from the want of the suggestion of the proper remedy and of organized effort to enforce it.

I do not propose to deliver a religious polemic on total depravity. So far as that difficulty concerns us at all, it can be remedied by the enforcement of the fullest and strictest interpretation of the eighth commandment. But how to change custom and to formulate a plan for organized effort will require fuller consideration.

Reform, if it comes at all, must originate in and be carried on by the medical profession. No hospital can exist without medical men. They are the “*sine qua non*” of the institution. They must, therefore, thoroughly investigate this matter and evolve a system which will meet the emergency and to which they will be pledged to adhere.

This is the dawn of the day of organization in the medical profession. Physicians are uniting and working together for the attainment of their objects to a degree never before known. Heretofore a few pioneers have sought to point the way, but they were never supported by the mass of their brethren. But now there is union for organized effort in various fields and this subject of hospital abuses must be taken up, discussed and a solution of the problem found and then a united profession must carry it through.

If then our difficulties arise from faulty customs, let's see what custom does in the inception and management of a hospital. How are hospitals generally started? A few moneyed and influential men with charitable impulses desire to do the public a service and provide medical care for the needy poor. They consult one or two physicians in the community, associate with themselves a few other prominent men, mature a plan for a building and constitute themselves a board of managers. Were it for any other purpose than for a hospital, there would be nothing here to criticize, but for such a purpose the constitution of the board of managers is open to a serious objection. Instead of only one or two physicians in the board, the majority should be physicians. It should be laid down as a universal rule, therefore, that the balance of power in the board of managers of a hospital should be placed in the hands of medical men. These medical men may or may not be on the attending staff of the hospital, but the general supervision and management of the institution should always be under their control. Physicians hitherto have been too prone to follow in the wake of philanthropists, instead of calling forth and directing their philanthropies. They have allowed these well meaning individuals to govern and control institutions of which they knew little or nothing, until they had been taught by an experience costly in needless anxieties, bitter jealousies and injudicious expenditures. No one knows so well as the physicians, the needs of a hospital, and their judgment aided by that of some of the influential laity, will guide the institution over the financial, domestic and professional shoals more harmoniously and safely than will the boards as generally constituted. Extravagance and waste would be more promptly detected and checked. No insufferable superintendent could snub the medical staff and be retained in his position, because it was more difficult

to obtain competence in the domestic than in the medical department. No vexatious strife could arise between the board of managers and the *medical* board as they would both be controlled by the same interests.

The second suggestion for the correction of hospital abuses is, "Charity hospitals should receive charity cases only." Patients who can pay for a bed in the general ward or even for a private room should not be admitted. There might be occasional exceptions to this rule in case of accident or emergency, but such patients should make proper compensation for services received and be removed from the hospital as soon as possible.

The first difficulty encountered in enforcing this rule lies in ascertaining who are charity patients. This business must be placed in the hands of a board of admission. Its duty should be to investigate each case and be reasonably certain that the applicant is a worthy object of charity before he is admitted. Such a board cannot be constituted of tender hearted ladies in the upper walks of life. They are too sensitive to externals and unfamiliar with the habits of the laboring classes, many of whom, while living in obvious squalor and apparent poverty, have good bank accounts and frequently are owners of real estate. These patients are only too glad to receive the care and comfort of a charitable institution and save the ordinary cost of living and outside medical fees. Many difficulties arise from taking charity and pay patients into the same ward. For example, go through the ordinary hospital ward. Some patients are absolutely unable to pay anything; others could pay, but by various means evade it; and some few others, who have not the assurance or shamelessness to receive so much care for nothing, pay a small pittance of a few dollars a week in the way of "board." They are all attended by the same physicians, nursed with the same care and fed from the same table. A short stay in the ward convinces the pay patient of one of two things,—either that he is entitled to more privileges than he receives, or, more frequently, that there is no reason why he should pay his board while his companion in the next bed, whom he may know to be just as able to pay as he, pays nothing. This often disturbs the discipline of the ward, is a source of continual dissatisfaction while the patient remains in the hospital and provokes him to unfavorable comment after he leaves. Then too, the so-called "board" by



no means compensates the institution for the food, care and nursing, especially if a surgical operation has been performed, and thus we see that the contract has brought to one party dissatisfaction and to the other pecuniary loss. And again, this pay patient before he entered the hospital had a physician, probably one of the "outsiders." *He* has *his* grievance. He has lost his fee, and his income is by that much reduced. He regards it as an imposition. He feels that he has been wronged, and that too by an institution which appeals to him in the name of charity and to whose support he has hitherto contributed.

If matters stand thus with the pay patient in the ward, how is it with the pay patient in the "private room?" The price of these rooms is generally enough to more than cover the cost of board and nursing, so that the institution gains something from this source. The patient receives special care and better food and he too is generally satisfied with the arrangement. So far then as these two parties are concerned, the "private room," barring difficulties incident to *any* public boarding house and allowing for the whims of nervous invalids, seems to be a success.

But how does the attending physician fare? In many hospitals where he himself sends the patient in, takes charge of him and is allowed his accustomed fees, he too is satisfied. But this unfortunately is by no means always the case. The managers of the Maine General and of the Massachusetts General Hospital and of other hospitals in the Eastern States are offering free medical and surgical treatment to all who will pay for private rooms. The attending physicians are not allowed to charge a fee to patients in these rooms, but are expected to give their services gratuitously as they do in the public wards. This is a most attractive scheme to mercenary managers, and enables them to obtain large revenues from their private rooms, which are always occupied. They have no scruples in thus depriving the physicians of their legitimate fees, for they argue that the experience and distinction, obtained from connection with the hospital, are a sufficient reward for all the services rendered by the attending staff. This is a most egregious misstatement, and its acceptance as an established basis of adjustment between hospitals and their attending staffs is fraught with disaster to the whole medical profession.

Dr. Ernest W. Cushing, after speaking of

this particular abuse sounds the warning as follows: "Something must be done to effect a remedy, and that very soon, or the profession will be utterly ruined; for the time will soon arrive when so large a part of the practice of medicine, and especially surgery, will be done in hospitals, and without remuneration, that the sources of professional support will be dried up; and after the doctors who have no hospital appointments have been impoverished and driven out of practice, those who have rejoiced in a more thorough training in their service in the hospitals will find that the public, which even now begrudges a fee, will more and more learn to evade payment, so that there will be no proper reward even for those who are considered eminent and successful in the profession."

We see then that the receiving of pay patients in a charity hospital, either in pay wards or in private rooms, is objectionable to the institution and perilous to the medical profession. We, therefore, are convinced that a *charity* hospital should receive *charity* patients only.

The third remedial suggestion is, that all medical service rendered to charity hospitals should receive an appropriate money compensation.

I imagine that this statement may be received with surprise even by an audience of medical men. Some may declare it "impossible to effect such a reform;" "too Utopian an idea;" "absurd;" "do you actually mean that the attending staff of a hospital should receive pay?" or from the laity, "Salary? They have salary enough from the experience and preferment of their position." Let us examine some of these criticisms and see whether the idea is so preposterous and impossible. First, the absurdity of the proposition. Absurd? Why absurd? Why should a physician any more than any other regular attendant give his services? Do the matron, the superintendent, the janitor or the cook serve without pay? Every attendant in the institution, from the highest to the lowest, expects and receives a salary, save only the physician—the most essential man of the whole scheme—the only one without whose service the usefulness of the institution would come to an end. *He* receives no pay. Absurd? Absurd rather, that he has been so long unpaid. There are no good reasons why he should not receive a salary that would not hold good against paying a salary to any other official. No good reasons? Yes,

there is one. It is often advanced by the laity, viz., that the perquisites, so to speak, of his position are a sufficient reward. I admit that a position on the attending staff of a hospital is an honorable distinction and of value in other respects. But, is that the proper basis on which to fix compensation, and, granting that, is that compensation sufficient? Did any one of you ever estimate the value, in dollars and cents, of a physician's service to a hospital? Several years ago I heard one of the older members of the profession, who had been a hospital physician for many years, remark that the money value of his services, attaching only moderate fees thereto, amounted to over \$1,000,000.00. I was considerably surprised, but reflection since then has convinced me that this is no over-estimate. I doubt whether there is a hospital physician in this city, the money value of whose services rendered to charity hospitals does not amount to at least \$10,000 annually, and, in some cases, it is many times greater. Take the hospitals throughout the land, and even though the estimate for them is on a somewhat smaller basis, the sum total is an amount absolutely appalling. And yet we are told that the honor and experience of a hospital position are an ample offset.

When I suggest that the hospital physician be paid, I do not mean that each one of the present attending staff be retained on a salary. Instead of a large outside attending staff, each one with an extensive practice in the community and discharging his hospital duties at hours convenient to himself, there should be substituted a permanent resident staff, composed of two or three medical men, eminent for their learning and skill. These men, living in the hospital, should devote their whole time to its needs. Their services could be supplemented by a house staff of young men varying in number with the size of the institution. This resident staff should be paid a salary commensurate with that which their skill and experience would command in the community.

Being always at hand, there would be no dangerous delay in awaiting the arrival of the "attending." Having given their whole time and service to the institution for a fixed salary, they would have no incentive to induce pay patients to enter the wards. This would add only to their labor and not to their compensation. The treatment of the institution being given to charity cases alone, they could not be asked to give gratuitous services to wealthy patients in private rooms.

Thus we see how one by one the abuses seem to disappear, and we turn anxiously to the last question—is such a "reform impossible?" By no means. Let us be sure that it is right, that it will remedy the evil, and then let us exert every effort by agitation and by discussion until we can put the plan in execution.

My views may be erroneous, but they are sincere; they may be incomplete, yet they have had years of consideration and are offered in the hope that where they fail they may provoke friendly criticism and the final evolution of a plan which shall harmoniously settle this vexed question.

*Regular Meeting held at the Yale Club, New York, December 7th, 1904.*

### TYPHOID ULCERATION AND PERFORATION.

Dr. Chandler in presenting the specimen said: The peculiarity of this specimen lies in the large size of the ulcer. It measures about two and one half inches in width and at least three inches in length. The lower part has been accidentally cut away. Its edges rise about one-quarter of an inch above the bottom of the ulcer. It is the largest typhoid ulcer I have ever seen. Near its margin is a perforation about one-quarter of an inch in diameter. The base of the ulcer is almost gangrenous. There were numerous other ulcers in the lower part of the ileum. The patient was a man, age 27, and was in the third week of typhoid fever. There was nothing unusual in his symptoms until the morning of the day (Nov. 23) before his death. There was then a sudden acceleration (160) of the pulse and a rapid development of tympanites. There was no pain and the pulse came down to 130 in the afternoon. On the morning of November 24th the pulse suddenly rose again and severe abdominal pain set in. The abdomen continued to be immensely distended and the patient died at 1 P. M. I neglected to state that on opening the abdomen a large amount of free gas rushed out. There was also some free fluid in the abdominal cavity.

Had an operation been done at the time of the first sudden rise of the pulse, it would have been justifiable, but would probably have been a failure owing to the extensive degeneration of the base of the ulcer. The patient did not come under my observation until the time of the autopsy.

### COMPLETE CAST OF OESOPHAGUS.

Dr. E. S. McSweeney presented a complete cast of the oesophagus with the following history:

Patient.—Male, aged 31. Swallowed about three ounces of the muriatic acid used by plumbers, an impure commercial preparation, with suicidal intent. Brought to hospital in collapse. No antidotes could be given as he could swallow nothing. However he vomited freely and was



given stimulant treatment. He was fed liquids by the stomach from the next day on. No pain or difficulty in swallowing, but some epigastric distress for a few days. Absolutely no other symptoms until the 5th day when he became unable to swallow, but after eight hours' rest, this was relieved.

On the eighth day he was taken with severe retching and coughing and brought up without hemorrhage this complete cast of the oesophagus which shows the mucus and submucous tissue. It is without perforation and includes the markings of the structures about the laryngeal entrance.

Patient ate solid food from the breakfast of the patient in the next bed about an hour later. He has had one moderately severe gastric hemorrhage since, but otherwise shows no symptoms, swallowing freely.

**Dr. Gouley.**—There must, eventually, be so much contraction of what is left of the oesophagus, with no mucous membrane left to be regenerated, as to completely prevent deglutition. It looks as if the case would soon have to be fed through the stomach, and if fed through that channel the operation may be successful. An incidental case in point shows that food may be introduced into the stomach very easily in that way. That is the case of Alexis St. Martin, which presented so many interesting physiological features.

## LITHOTOMY.

### Its Early History and Modern Adaptations.

BY J. W. S. GOULEY, M. D., NEW YORK CITY.

The theme of this paper, suggested by a brother alumnus, is Lithotomy, with annotations on its early history, modes of performance, and modern adaptations. The dear brother who made the suggestion may not have imagined what a difficult task he had assigned to the writer, of setting forth in one evening, even in the most concise abstract, the early history of lithotomy and lithotomists. The thought that the erudite Deschamps had to write four octavo volumes, in order to tell that story down to the end of the eighteenth century was not very encouraging to the writer in view of his perilous undertaking, ventured, however, for the benefit of beginners, in the hope of inducing them to institute further inquiries into this important subject, in both its theoretical and practical aspects, and offered for the criticism and suggestions of experts.

In prehistoric times, when men were afflicted with vesical calculi, it is likely that their pangs continued unrelieved until death ended all physical misery. It is likely, too, that many sufferers were so fortunate as to

discharge the stone when but a wee bit of gravel. The observation of such cases doubtless led some bold, enterprising medicine man to attempt the removal of the offender, which, when of diminutive size, he succeeded in causing to be expelled from the bladder by more or less violent means. In all probability he had often witnessed the spontaneous expulsion of gravelly masses during urination, and finally determined to try what is now called artificial lithecboly, of which a heroic process is described by Prosper Alpino (1591), in his work on the medicine of the Egyptians, and which consisted in inflating the bladder and making pressure thereon, and thus forcing out the stone, or extracting it by buccal aspiration. From Alpino's account it seems likely that inflating the urethra and bladder, to effect dislodgement of a small stone, had a very remote origin.

Lithecboly, so often incomplete, the stone being jammed in the anterior part of the urethra, must have suggested lithexæresy, its extraction—perhaps with some crude instrument. It is scarcely necessary to say that no sensible modern surgeon would resort to inflation of the urethra and bladder to effect artificial lithecboly, since he can do so by dilating the urethra and contracted vesical neck with bougies or sounds. These modes of ridding the bladder of calculous concretions were the early precursors of lithotomy which, intended to signify the cutting of the kidney, ureter, urethra or bladder for the removal of a stone, is of such ancient date that no writer has ventured to say exactly when it was first performed. That cysto-lithotomy was commonly done in the time of Hippocrates is attested by his having required his disciples to take oath never to undertake it, but leave its performance in the hands of experts.

Dujardin, in his history of surgery, said that it may be reasonably inferred that the Hippocratic prohibition was owing to the fact that some family was then in exclusive possession of a secret way of performing this operation.

The word lithotomy, according to Celsus, was coined from *lithotomos*, which was the nickname of Ammonius of Alexandria, who lived in 276 B. C., and who was called *lithotomos*, stone cutter, because, with a sculptor's chisel and mallet, he was wont to reduce the size of stones that were too large to be extracted through the vesical cut. Daniel Le Clerc (1729), in his history of medicine, said substantially, that "for the

improper word lithotomy, should be substituted cystotomy, which would be more exact, since it is now the bladder and not the stone that is cut." Nevertheless the wrong designation of this operative process is likely to continue in use for a long time to come.

*Nephro-lithotomy*, the cutting for stone in the substance of the kidney, has been employed frequently during the past thirty years, and is no longer regarded with the awe which it formerly inspired. The organ is generally reached by incision in the lumbar region. In the majority of cases the stone is lodged in the pelvis of the kidney. Even in those cases it is safe to reach the pelvis by splitting the kidney longitudinally along its free border, for such a cut is not attended with much hemorrhage, since there are no large vessels in that line of incision, as demonstrated by the writer in 1889 from corroded preparations of several kidneys whose arteries had been injected. When not too long delayed, nephro-lithotomy has given the most satisfactory results; the percentage of mortality being very small. Exploratory operations on the kidney have not proved dangerous, though many have been done and no stone found.

In the lumbar operation the renal pelvis is sometimes directly opened without interference with the substance of the kidney. In that case the operation is strictly a pyelolithotomy and is liable to be followed by a lumbar-urinary fistula.

*Uretero-lithotomy*, which is a modern operation, has been performed in three situations. First, by a preliminary trachelocystotomy, when the calculus is lodged near the vesical extremity of the ureter; second, in the lumbar region, the calculus being extracted through a longitudinal incision of the ureter, which is then carefully stitched; and third, near the sacro-iliac synchondrosis through an incision such as is made for ligation of the primitive iliac artery. The results of these operations have been very gratifying.

*Urethro-lithotomy* in the phallic region was first described by Celsus. That method of removing urethral calculi continued to be employed until the advent of lithotripsy, since which time the cutting operation has been abandoned, except in cases of very large stones. Urethro-lithotomy is now generally performed in the scrotal, perineal, membranous and prostatic regions. It is adapted to cases of urethral calculi complicated with narrow, undilatable strictures,

and to cases of large stones lodged in any of these several regions of the urethra when urethro-lithotripsy is not practicable.

*Cysto-lithotomy* or litho-cystotomy, by any method soever, has always been regarded as very difficult and attended with risks to be kept constantly in view by the operator. No beginner should undertake its performance until he has acquired a thorough knowledge of the anatomy of the parts and has repeatedly practised the operation on the cadaver. The Celsian account of the manner of proceeding was so graphic that his description and mode of operating were adopted to the letter, and it was not until the sixteenth century that a modification was recorded to have been made of that method under the designation of *apparatus major*; eighteen hundred years having expired, from the time of Ammonius to Roman John, without any progress in the mode of performing lithotomy. Further modifications occurred from the seventeenth to the nineteenth century, and the following named methods were devised; the lateral, lateralized, bilateral, quadrilateral, median, medio-lateral, medio-bilateral, pre-rectal, rectovesical, lithoclastic-cystotomy, and lithoclastic-trachelo-cystectomy. The Franconian epi-cystotomy, condemned by its author, had a short revival in the seventeenth, a second in the eighteenth, a third in the beginning of the nineteenth, and a fourth revival, likely to be lasting, toward the close of the nineteenth century. Of the fourteen methods named above, nine belong to the nineteenth century.

*The Celsian method*, whose use did not cease even long after the introduction of its first modification, was styled lithotomy by the lesser apparatus to distinguish it from the lithotomy by the greater apparatus, because of the few instruments employed in its performance, to wit: fingers, a knife, and a blunt hook. To accomplish the operation, the stone was forced toward the vesical neck by pressure in the hypogastric region, with the right hand, while with two fingers of the left passed into the rectum the stone was brought forward and gripped in that position. A crescentic incision across the perinaeum, with the horns looking toward the ischia, was made close to the anal margin, the "neck of the bladder" cut transversely and, with the blunt hook, the stone was extracted. From this description it may be justly inferred that the Celsian was, in reality, a bilateral operation. It was used chiefly in children up to the age of fourteen. Adults



fared so badly under the process that they were seldom cut.

*The Marian method*, by the so-called apparatus major, owing to the many instruments required in the performance of the operation, was invented during the year 1525 by John of the Romans, in his old age, and described by his friend and disciple, Mariano Santo of Barletta, whose name it bears, and whose work "*Libellus Aureus de Lapide Vesicae per Incisionem Extrahendo*," was published in 1543. Mariano then instructed Octavian de Ville of Rome in that art of lithotomy, and Octavian, during a visit in France, imparted it to Laurent Colot, and returned to Rome, where he soon died. So that, in 1556, Laurent remained the sole possessor, in France, of the method of lithotomy by the greater apparatus, and the secret was kept in the Colot family for about one hundred and fifty years. The manner of performing the operation was finally made public by Francois Colot, the last of the name, in medical biographies. The essential steps in that operation were: to make a straight cut on the left side near and parallel to the median perineal raphé, to lay open the bulbous urethra and, from that point, to stretch or perhaps tear the parts to the vesico-urethral orifice by the successive introduction of blunt instruments of increasing size until the passage was sufficiently ample for the easy extraction of the stone, which was to be broken in case of inordinate dimension. The Colots attained great skill and success in the practice of the operation, and the last of them gave his experiences honestly, candidly and intelligently. His posthumous work is well worthy of careful perusal. Francois Tolet, a contemporary of Colot, also wrote a book on lithotomy, which well merits study.

*The lateral method* came into use during the seventeenth century, when there still existed, in Italy and France, some itinerant lithotomists; among them one Pauloni, who was wandering through the southerly provinces and with whom Jacques Baulieu, born in 1651, known afterward as Frere Jacques, became acquainted and learned the Marian and Celsian methods, when only twenty-one years of age and with no education beyond reading and writing. Nevertheless, he strove to improve on these modes of operating, using at first, as conductor, a sound without groove and making a transverse unilateral section through the prostate and vesical neck. It is said, however, that this lateral cut was not original with Baulieu,

but had been invented long before by the accomplished anatomist and skilful surgeon, Foubert, who performed the operation without conducting sound; plunging the knife through the perinaeum, and cutting the parts laterally. His success was prodigious, but his boldness found no imitators.

Baulieu, after travelling through southern France and performing successfully many lithotomies, went, in 1697, to Paris, where, at the Hotel-Dieu, he operated with success by his "new method" on a man aged forty. The manner of the operation not satisfying those who witnessed it, the operator was asked to repeat its steps on the cadaver. Méry was charged with the dissection and examination of the parts involved in the operative procedure, in order to ascertain what advantages the method might offer. Without waiting for the report, which was delayed, Baulieu went to Fontainebleau with letters to Fagon, the physician and Félix, the surgeon of Louis XIV. Through their good will he was permitted to lithotomize several patients, who all recovered. Returning to Paris in the spring of 1698 he operated upon sixty patients, of whom, according to Méry, twenty-five died. The surgeons present at these operations declared that Baulieu, in his speech and acts, gave no evidence of possessing the least knowledge of anatomy, and that they were convinced he was guided only by a blind routine.

Jacques then resumed his peregrinations; visiting different towns in France and Germany where he is said to have effected many cures. Fagon, who was suffering from the stone, induced him to go to Versailles, where he was required to make, under the eye of Duverney, further cadaveric experiments which resulted in a marked improvement—to be stated later. He then operated on the living in thirty-eight cases, all of which happily recovered. Notwithstanding these favorable results, Fagon, on whom he had expected to operate, was prevailed upon to give the preference to Maréchal, the eminent surgeon. Chagrined by this disappointment, he left Versailles in 1702, but toward the end of that year was summoned by the Maréchal de Loges, who needed his services. The Maréchal, before submitting himself to the operation, and wishing it first to be tried on others, under his auspices, made provision for the housing of twenty-two calculous patients, who were cut by Baulieu with complete success, during the spring of 1703. But when it came to his

turn, the Maréchal succumbed a few days after the operation, owing to advanced disease of the upper urinary organs. He had waited until the operation was contraindicated! Disheartened by this sad failure, Baulieu left France to travel in Italy, Germany, Belgium and Holland. He returned to France in 1716, and died in a few years.

*The lateralized method*, styled in England the lateral, though in part suggested in the writings of Paul of Aegina and of other ancients who recommended that the incision of the integuments be made obliquely to the left of the median perineal line, was not known to Baulieu, its real inventor, who first put the complete method into practice after having profited by the anatomical instructions received from Méry and Duverney. He began the perineal cut where ended the incision for the Marian operation; substituting, at the suggestion of Méry, a grooved staff for his original conductor, and thus made an important improvement on his first method. This was before he had visited Holland, and had been so cruelly misrepresented by Rau of Amsterdam who, though employing with success Baulieu's later method, insisted that, by his alleged own way of operating, the body and not the neck of the bladder was cut. Those who followed to the letter Rau's pretended method met with the very worst results, such as infiltration of urine in the pelvis, besides other sad accidents. This wicked deception was an almost fatal blow to Baulieu's lateralized method which, however, was reinstated after the discovery and exposure of Rau's bad faith, and some further modifications were made later, chiefly in the necessary instruments. But Brother Jacques did not live long enough to enjoy his triumph, for he had passed away in 1720, at the age of sixty-nine.

The first operator to revive the lateralized method, under the title of the "lateral way," was the eminent London anatomist and surgeon, William Cheselden, who had had such ill success with Rau's supposed method that he concluded to conduct his operations on the lines of Baulieu's lateralized method, but added to the necessary instruments a blunt gorget which he passed into the bladder along the groove of the staff; this gorget serving as a conductor for the forceps designed to grasp and extract the stone. In the year 1730 he published his "Short Historical Account of Cutting for the Stone." Almost simultaneously with Cheselden, Percher and Garengot had revived the nearly forgotten lateralized

method of Baulieu. And Morand, Pouteau, and Ledran in France, Sharpe in England, and Heister in Germany, did each his share toward improving the lateralized method.

Lecat of Rouen is said to have invented the first cutting gorget to be used instead of the knife for the prostatovesical incision, but the instrument proved to be worthless. The next instrumental invention was by Jean Baseilhac, better known as Frère Côme, who devised his lithotome caché, taking the cue from the bistouri caché of Bienaise. The first operation with the lithotome caché was performed, at the request of Baseilhac, in 1748, by his friend de la Roche, and was entirely successful. The main advantages claimed for this lithotome being the certainty and precision of the vesicoprostatic cut. This excellent instrument, variously modified, is used to this day by many surgeons.

The great success attained by Baseilhac and other operators who employed this lithotome, roused the envy of Lecat, who decried it and vaunted the qualities of his own instrument, but to no purpose. This again raised the question of cutting gorgets, and Sir Caesar Hawkin's gorget, designed to incise the prostate and vesical neck, found advocates in Louis and Desault of Paris, and Physic of Philadelphia, each of whom made thereof such modification as suited his fancy. These gorgets were intended to cut from before backward, and this was the main objection to them, although Dudley of Kentucky, and other American surgeons employed them with great success. The judgment and skill of the operators rather than the character of instruments were evidently the main factors in the success attained in lateral lithotomy by Dudley and his contemporaries.

For the vesico-prostatic cut, Sir William Blizard preferred the beaked, straight bistoury which bears his name, whilst other lithotomists have completed the cutting part of the operation with the same scalpel that had served for the external incision; the essential step observed in modern lateral lithotomy being to give the deep incision the oblique course between the urethra and left ischium, long since directed by good operators, so as to avoid injury to the rectum or to any vessel likely to bleed inordinately.

*The bilateral method* was proposed by Ledran in 1756, afterward by Chaussier, then by Béclard in 1813, and by Turck of Strasbourg in 1818. It was finally adopted, in 1824, by Dupuytren, who used the Cel-



sian external incision, but gave great precision to the deep cut with a double lithotome constructed on the principle of Frère Côme's lithotome caché, and slightly curved flatwise. Among the Americans who have resorted to Dupuytren's mode of performing this operation was Paul F. Eve of Tennessee, whose results were so gratifying that he was no advocate of the bisectors then in use, one of the earliest of which being Alexander H. Steven's prostatic bisector, described as resembling a large olive with a beak at its extremity, cutting edges at the sides paralld to its long axis, and a straight handle. The main object in using this instrument was avoidance of rectal wound. James R. Wood's bisector was constructed with the same object and on the same principle as Steven's, but resembled a half olive, cut lengthwise, with blades along the edges of the flat part of the half olive. Post's bisector differed from these in its not being olivary. All used the crescentic external incision.

*The quadrilateral method* was proposed by Vidal (de Cassis) and published in his thesis for the doctorate in the year 1828. The object of the quadruple division of the prostate and vesical neck was to facilitate the extraction of large calculi. This method found so few advocates that it made no progress.

*The median method*, suggested by the Marianian, was proposed in 1825 by the Pisan surgeon, Vacca Berlinghieri, as a substitute for the urethro-recto-vesical operation of Sanson, and consisted in making an incision in the middle line of the perinaeum, in opening the urethra at its bulbo-membranous junction, and with a beaked bistoury, cutting the vesical neck and prostate very close to the median line, taking care to avoid injuring the ejaculatory ducts. This trachœlo-cystotomy is the only operation worthy of the name median, the "median lithotomy" of George Allarton of South Molton, England, being in reality a trachœlocystectomy, and safer than the Berlinghieran method. Mr. Allarton first published a description of his method in 1854, under the title of "Lithotomy Simplified," and his "Treatise on Median Lithotomy" appeared in 1863. This Allartonian operation is so well known and so often performed in America that no further remarks are needed concerning its merits.

*The medio-lateral method*, the cutting being guided by a nearly rectangular grooved staff, was employed by Sir James Earle in

1812, by Nathan R. Smith of Maryland, and by Auguste Mercier of Paris, and was adopted and modified, in 1846, by Buchanan of Glasgow, who used an absolutely rectangular staff deeply grooved laterally from the angle to within a short distance of the beak. In these several modes of operating the external incision is short and the deep cut is horizontal. The chief advantages claimed for these operations being that they are more easily and quickly done than the lateral, and less dangerous because of the restricted limits of the incisions. Henry Lee performed the medio-lateral operation guided by a centrally grooved curved staff, and regarded it as simpler and quite as safe as the method by the rectangular staff.

*The medio-bilateral method*, devised by Civiale in 1829, consists in opening the perineal urethra centrally and making the deep cut with a straight double-bladed lithotome. The advantages claimed for this method are that the operation is easier performed than the bilateral, and that it causes less bleeding. Among its American advocates were Hutchison of New York, and Briggs of Tennessee. The American lithotome being slightly curved flatwise, and similar to Amussat's.

*The pre-rectal method*, which is but a slight modification of the bilateral operation of Dupuytren, was proposed by Nélaton, and consists in carrying the dissection backward until the prostate is reached and opened at its apex for the insertion of the double lithotome with which the deep cut is made; the main object being to avoid the urethral bulb. But this bugbear of profuse bleeding from a wound of the bulb has led to many unnecessary, tedious, and sometimes hurtful devices for avoiding the bulb, which is almost always cut in perineal lithotomy, and seldom bleeds alarmingly when it is freely divided; a slight wound being more likely to bleed excessively. To Mr. Skey, lithotomists are indebted for exposing the fallacy regarding the alleged danger of serious hæmorrhage from division of the bulb.

*The recto-vesical method* was performed by Sanson in 1816, by Sleigh, and by Maisonneuve. The first method of Sanson was an external urethro-recto-vesical process, for, at one longitudinal cut, he laid open the urethra, the prostate, the base of the bladder, the anal sphincter, and the lower end of the rectum. The second Sansonian method was an external recto-vesical operation wherein the anal sphincter was cut but the perineal urethra was untouched. Maisonneuve spared both the perineal urethra and sphinc-

ter, and Sleigh did likewise leave intact the perinaeum reaching and opening longitudinally the base of the bladder through the rectum, after stretching the sphincter. The alleged advantages of Sleigh's operation were avoidance of hæmorrhage and the facility with which a large stone was removed. Sleigh's operation has been performed a few times in this country, and in one case the vesico-rectal wound was successfully closed with wire sutures.

*Lithoclastic cystotomy*, though performed more than two centuries before the Christian era by Ammonius, surnamed *Lithotomos*, and resorted to by other early lithotomists, such as Franco, Paré, the Colots, Covillard, Lecat, Heister and Baseilhac, and in modern times by Civiale and others, was proposed in 1830, as a regularly systematized operation by Malgaigne in his *Thèse de Concours*, wherein he described it as a *taille lithotriptomique*, a combination of lithotomy and lithotrity, applicable to cases of calculi too large to be extracted in their entirety.

*Lithoclastic trachoele-cystectomy* was styled perineal lithotrity by Dolbeau in his treatise on stone in the bladder, published in 1864. The word cystectomy was used, in 1842, by Willis, to designate artificial expansion of the vesical neck, but since it really means expansion of the bladder, the affixion of a qualifying word is demanded for exactness, hence trachoele-cystectomy. The Willis operation was an external urethrotomy in the membranous region, and expansion of the vesical neck with Arnott's dilator, sufficient to permit the extraction of a moderate sized stone. He advised fragmentation of large calculi, so his operation bears some resemblance to that of Dolbeau. He quoted John Douglas as proposing, in 1727, gradual dilation of perineal fistulæ, with sponge or gentian tents until the tract was ample enough to admit forceps with which to extract a small stone. Dolbeau's perineal lithotrity differs from Willis' operation in the mode of expansion of the vesical neck which is effected by a six-bladed metallic dilator to the diameter of two centimetres, in the means of fragmentation attained by the use of a slender but strong lithoclast, in the employment of the scoop or of small forceps for extraction of the fragments, and in free irrigations for the expulsion of the finer detritus.

The *supra-pubic method* is credited to Germain Colot by several authors, but careful examination of the question of priority fails to show that this operation of epicysto-

tomy was ever performed by Germain Colot. That medical myth seems to have arisen from a very imperfect laic account contained in old chronicles, wherein is given the date, January, 1474, when a criminal condemned to be hanged was, by permission of Louis XI., subjected to a surgical operation on condition that should he survive he would be pardoned. "He was cut open, his bowels examined and replaced, and the body sewed up." He recovered, but the exact nature of the operation is not stated, nor is the name of the operator given. The real inventor of the supra-pubic method was the eminent French surgeon, Pierre Franco, who, at Lausanne, Switzerland, in the year 1560, performed the operation on a boy two years of age, after failing to extract the calculus through a perineal cut, when he at once opened the bladder above the pubes and removed a stone of the size of a hen's egg. Although the child made a good recovery, Franco condemned the operation in his work published in 1561. This condemnation was approved by surgeons of the time, and the operation found no advocate until 1581, when Rousset, in his work on the Caesarian section, strongly recommended the high operation of Franco, after a careful study of the anatomy of the bladder in both sexes, but never performed it on the living. Guy Patin, in a letter dated June 18, 1649, spoke of having taken part in the defense of a thesis by Nicolas Pietre on the Franconian operation, which had been performed successfully in Paris on men and women. This revival was very short. John Douglas strove to improve and popularize the high operation, and in 1719 published his "Lithotomia Douglassiana." Cheselden, after many trials, expressed his disappointment in the operation, and took up the "lateral way," although in 1723 he had published a "Treatise on the High Operation of the Stone." Heister wrote on the supra-pubic method in 1728, and was followed by Morand, whose treatise thereon appeared in the same year. Later, the operation, as modified by Baseilhac, was performed by several French and English surgeons. The results not being satisfactory, the operation was again given up. Then, early in the nineteenth century, Souberbielle, Carpue, the English surgeon, then Damourette, Drivon, Belmas, Amusat and others endeavored to reinstate it, but the mortality was such as to discourage its further trial. The final revival was begun in the last quarter of the nineteenth century. Asepticism and the simplified modern



mode of performance have given such good results that the operation is now regarded as a much safer and easier procedure than it was even in the hands of the greatest surgeons of the past.

The chief cutting operations for stone in the bladder, now performed in this country, are the lateral, the median of Allarton, and the supra-pubic. However, some surgeons still give preference to the bi-lateral, medio-lateral, or medio-bilateral; but, for good reasons, all reject the quadrilateral, pre-rectal and recto-vesical operations.

*The lateral operation* is adapted to the young child and to the infant—whose bladder, be it remembered, is almost an abdominal organ, rising high in the shallow pelvis—to the adolescent whose bladder is inordinately irritable, and to those adults whose contracted bladders need drainage, owing to obstinate cystitis. It is contraindicated in cases of small calculi triturable at a single lithotriptic sitting, and in cases of large friable stones when the bladder is likely to be tolerant of one prolonged sitting of litholapaxy, provided the general condition of the patient warrants such a procedure.

*The median Allartonian operation* is not adapted to infants and very young children, when the finger is used for dilatation of the parts, as recommended by Allarton; the danger of this process being the severance of the urethra from the prostate—an accident by no means rare. Dolbeau's or any suitably constructed instrumental dilator will effect with safety the desired expansion of the vesical neck; this and some of the other good features of perineal lithotripsy may well be taken advantage of in the performance of the Allartonian operation which, so modified, is rendered safer in children and is best adapted to adolescents and to adults whose bladders do not require drainage. This method is also adapted to cases of small stones in patients affected with permanent urethro-vesical contracture or bars requiring incision; the operation being thus converted into a true median trachelocystotomy. In cases of large frangible stones, the modes of fragmentation, extraction of fragments, and riddance of the bladder from the finer detritus, prescribed by Dolbeau, are surely worth adopting in the performance of the Allartonian operation.

*The supra-pubic operation* is adapted to cases of infrangible stones too large to be extracted by way of the perinaeum. It is also adapted to the removal of foreign bodies that cannot be extracted by the urethra

or through a perineal opening. The ample bladder is a favorable condition to the high operation, but its permanent contracture, with diminished capacity, is not a contraindication. Even some of the old lithotomists did not regard artificial distension of the bladder as absolutely necessary, for they often performed the Franconian operation upon empty bladders for the removal of stones or foreign bodies. In these modern times the bladder is too frequently opened above the pubes for the extraction of small stones removable through any of the safer perineal operations, or even triturable at one lithotriptic sitting. There is now no excuse for adherence to a single method of removing stones from the bladder, in view of the many modes of proceeding from which to make choice. The wise surgeon selects that mode of operating which, in his judgment, is best adapted to the peculiarities of the case and to the physical condition of the patient.

*The accidents of infra and supra pubic lithotomy* need only a few words. The principal untoward happenings common to the several modes of operating by way of the perineum are: failure to reach the groove of the staff with the cutting instrument and consequent injury to adjacent parts; wound of the rectum; wound of the body of the bladder; wound of anomalous vessels followed by excessive hemorrhage; and laceration of the vesical neck and prostate in forcible extraction of a large stone.

The main accident of the recto-vesical operations are: wound of the ejaculatory ducts, spermatic canals, seminal vesicles, and of the peritoneum, and laceration of the parts during the extraction of the stone, favoring urinary infiltration.

Of the supra-pubic operation, the chief accidents are: wound of the peritoneum and of the small intestine, with consequent septic peritonitis; and laceration of the parts during extraction of a large stone, with consequent infiltration of urine.

*Of the results of lithotomy*, correct information is not attainable by the exclusive examination of mortality bills of particular operations, but some approach to the truth may be made by adding all the figures of the recorded recoveries and deaths, and striking an average, although even then the attainment of exactness will still be impossible, owing to the fact that the results of very many operations are never published, and that almost as many are not accessible. William Coulson has endeavored to strike

that average from a large collection of cases embracing the results of operations performed in Great Britain and Ireland, France, Germany, Austria, Italy, Russia, Denmark, Sweden and America, consisting of six thousand five hundred and five cases of all lithotomy operations, at all ages, both in males and females, exhibiting a majority of one in six and fifty-six one-hundredths.

It is well known that large proportions of fatalities are attributable to advanced disease of the upper urinary organs, or to intercurrent affections of other organs, and that in such cases the operation only hastens death which, even without help from the surgeon's knife, would soon occur. If the conditions contra-indicating surgical intervention could always be ascertained, the mortality from any of the modes of lithotomy would be comparatively small. The beginner should, however, remember that more wisdom is needed to determine if an operation is indicated than skill for its performance, and that this skill must be great.

More favorable results have been attained in private than in public practice, partly by reason of the early application of the wealthy for relief, partly owing to the hygienic surroundings. But now that sufferers among the poor are earlier warned, hospitals better equipped, and asepticism rigorously observed, the results of public operations are already far better than ever before.

Coulson collected five hundred and forty-seven cases operated upon in private practice. Of these only twenty-five died, or one in twenty-one and eighty-eight one-hundredths.

The results of the different methods of operating may be worth contrasting. Of the Celsian method, so little is known with certainty regarding the results that they will not be comprised in this brief examination. Of the Marian operation, Coulson asserts that the mortality was one in four and eighty-nine one-hundredths. Of the mortality of Baulieu's lateral operation, the figures were so contradictory that it was not possible to form a just estimate thereof. On the one hand he was reputed to be almost uniformly successful, and on the other he was said to fail; witness Méry's report of the sixty operations with twenty-five deaths. The lateralized method yielded better results. The mortality from Cheselden's "lateral way" was one in seven and thirty-eight one-hundredths.

Of the lateral operation as it is now understood, Gross of Philadelphia made a col-

lection of 1929 cases with 187 deaths, or one in ten and thirty-one one-hundredths. The number of his own operations was 115, with ten deaths, or one in eleven and five-tenths. Sir Henry Thompson tabulated 1827 cases of lateral lithotomy performed in England, with a mortality of one in about eight. Of 426 cases of lateral lithotomy performed with the gorget in private practice by American surgeons, the mortality, according to Gross, was one in twenty-three and seven-nineteenths. Dudley, who used the gorget, and whose cases were mostly in private practice, performed the operation two hundred and seven times, and lost only six cases, or one in thirty-four and five-tenths. Valentine Mott lost but one case in his first fifty lithotomies, but afterwards the fatalities were more frequent in his practice.

Of the median Allartonian operation, the results up to the year 1870 were very gratifying. In England and America 364 operations were performed on patients whose ages ranged from one and a half to seventy-seven years; 332 recovered and 32 died; or one in eleven and thirty-seven one-hundredths. Of these 364 operations, 139 were performed in America with the occurrence of only five deaths, or one in twenty-seven and eight-tenths.

The results of perineal lithotritry in the practice of Dolbeau were fair, in consideration of the fact that in all the cases the stones were large or multiple, and the ages of half of the patients ranged from fifty to seventy-two years. Of his thirty cases, five proved fatal, or one in six.

Of the supra-pubic operation, the mortality, according to Coulson, was one in three and eight one-hundredths. Since the last revival of the method, the results of this operation have compared favorably with those of the lateral and Allartonian methods.

The mortality from the bilateral operation, in the time of Dupuytren, was one in four. The record of Eve of Tennessee is very much better. Of eighty-seven patients subjected by him to bilateral lithotomy, only eight died, or one in ten and seven-eighths.

From the medio-lateral operation performed upon his rectangular staff, Dr. Buchanan claimed the mortality to be only one in ten and four-tenths.

In the medio-bilateral, Briggs had a phenomenal success. Of his hundred and thirty-six operations, only three proved fatal, or one in forty-five and a fraction.

Of Sleight's recto-vesical operation, the mortality was about nineteen per cent.



It is a noteworthy fact that the achievement of some surgical processes often conduces to the discovery or to the just appreciation of things not well known in anatomy or in the practice of surgery. Thus lithotomy and its accidents have prompted the closer study of the parts concerned in the operation, whether it be on the kidney, ureter, bladder or urethra. So, in these modern times, nephro-lithotomy is not regarded as such a formidable operation as in early days, and the same may be said of uretero-lithotomy.

The difficulties often arising during the attempted introduction of an explorer or of a lithotomy staff through the urethra doubtless contributed to the discovery of the obstructions which became known as strictures, and also to the discovery of the prostate about the middle of the sixteenth century by the eminent Venitian anatomist, Nicolas Massa.

Lithotomists of the sixteenth and seventeenth centuries sometimes removed accidentally portions of the enlarged prostate in the grasp of the forceps during extraction of a stone without untoward effects. The knowledge of this fact emboldened later operators to wrench or to enucleate such prostatic growths during lateral lithotomy; prominent among those was Sir William Ferguson.

The pre-rectal lithotomy of Nélaton suggested the right way to reach the enlarged prostate for its enucleation.

The accidents of recto-vesical operations impelled the great anatomist, Charles Edward Isaacs, to make an exhaustive study of the base of the bladder and of the affixed genital organs, and also of the pelvic peritoneum, which revealed the fact that this serous membrane very often overlaps the base of the normal prostate and that, therefore, the frequency of this anomaly is a sufficient reason why these recto-vesical operations should be abandoned.

Supra-pubic lithotomy has brought to view intra-vesical protrusions of the prostate, and led to their avulsion or to their excision immediately after extraction of the stone. Amussat is recorded as having accomplished that incidental operation early in the nineteenth century. This probably induced Dittel in 1885, and Belfield in 1886 to employ epicystotomy not solely for the purpose of extracting calculi, but for excising intra-vesical prostatic growths.

Since the last revival of supra-pubic lithotomy, the uncertain method of avulsion of

villous tumors of the bladder, through a perineal cystotomy, has been discarded, and these tumors are now brought into view and removed with precision and safety through a supra-pubic cystotomy.

Such are some of the discoveries to which lithotomy has led, and for which modern surgeons are greatly indebted to the labors of the true pioneers in the wilderness of the surgery of the urinary organs, notably Ammonius, John of the Romans, Franco, Bau-lieu, and Cheselden.

In the foregoing very brief sketch, it was sought to point out only the main features in the early history and present adaptations of some of the methods of lithotomy.

### DISCUSSION ON DR. GOULEY'S PAPER.

**Dr. Henry S. Stearns.**—Mr. President and Gentlemen.—There being so many older and better qualified men present, the being asked to speak first after the reading of Dr. Gouley's paper would cause me considerable embarrassment were I expected to discuss his very able exposition of the subject. But, gentlemen, the charming modesty of our dear brother has carried him to such lengths as to cause him to believe some apology necessary for his temerity in addressing us this evening.

So my function now is that of an apologist; a function about as necessary in this particular case as that of "a fifth wheel to a cart." I acknowledge and am proud to admit that the original suggestion of the paper of the evening was mine. When he asked me several weeks ago what in the world he should write about, my memory at once travelled back twenty years to the first lithotomy I ever saw, at which Dr. Gouley was the operator. And one of my most vivid recollections is of his caustic remarks on the unskillful manner in which I supported one of the patient's limbs. But I was then only a junior assistant in Bellevue Hospital and to-night feel that in all probability his objurgations were justified.

**Dr. Charles Phelps.**—Mr. President and Gentlemen.—I know that many are present who are better qualified to discuss this subject than I am. For us who are surgeons in New York, the consideration of lithotomy is, perhaps, more academic or reminiscent than practical.

When I was a student vesical calculi were much more common than at present, and while the operation of Lithotomy was not a common one, it was far from infrequent. I think the lateral operation was the one usually selected by surgeons. Dr. James R. Wood, however, performed more freely than any other the bilateral, on the ground that it was safer, as the lateral was attended by a good many dangers. Dr. Erskine Mason was a great advocate of the median.

I must confess personally to some prejudice against the supra-pubic operation, as an operation of choice. I have never performed the operation, but have seen the results in the hands of competent surgeons. I think if I had lithotomy to do to-day I should still prefer,

under ordinary circumstances, the bi-lateral to either of the others.

I have only had one case of stone to operate on for the last two or three years. There was a large stone present after a prostatectomy and there was no choice of operations. I had to enter the bladder through the perineal cicatrix, resulting from the former operation.

Gentlemen, I am sorry that I am not better prepared to discuss the question and have made these remarks in an informal manner.

**Dr. Stephen Smith.** My personal experience in the treatment of urinary calculi has been too limited to enable me to speak with any confidence of the merits of different operations. I have, however, been familiar with the several methods of procedure as they have been practised in hospitals with which I have been connected. The first operation which I witnessed was before the full and general use of anaesthetics. The skill of the operator was estimated by the rapidity of the operation and partly on that account the lateral perineal operation was preferred. It was said that Dudley, of Kentucky, operated so rapidly that the by-stander could scarcely distinguish the different stages of the operation. While a member of the resident staff of Bellevue Hospital, Dr. Van Buren discussed the different operations and operated by the lateral method at the opening of the first amphitheatre of that hospital. In his association with Dr. Valentine Mott, his father-in-law, then actively engaged in professional work, Dr. Van Buren had considerable experience in lithotomy. He greatly preferred the lateral perineal method, as did Dr. Mott. Dr. James R. Wood, then a member of the Bellevue visiting staff, discussed the operation and in operating, as I recollect, made the Celsian incision and completed the operation with his bisector. Dr. Willard Parker operated by an incision made obliquely across the centre of the perineum and entered the bladder somewhat as in the median method. The high operation was at that time not even spoken of, as a method to be compared with the various perineal operations. But later Dr. Henry S. Hewit, a very brilliant young surgeon, performed this operation with such success as to attract attention. I was present and was struck with the simplicity of the operation. It was performed several times afterwards in the city with varying success, and was finally reserved for cases where the stone was very large. I repeated Hewit's operation once and found it very easy of execution and the result satisfactory. Subsequent experience and observations have led me to believe that the great advances recently made in the treatment of urinary calculi, by litholapaxy, have relegated lithotomy to the realm of ancient history. I wish to add that the review of the history of operations for the relief of urinary calculi has been extremely interesting and altogether creditable to my long-time friend, Professor Gouley.

**Dr. Joseph D. Bryant.**—Mr. President and Gentlemen.—I wish to say that it is a matter of great pleasure to me, at the request of the reader of the paper, to be present to-night. Not only because of the large amount of information imparted by the paper in so classic a manner, but also because of the fact that quite a number of years ago, I, like many others

here, held the position of house surgeon under the distinguished reader of the paper.

I never recall those days, particularly in connection with genito-urinary disease, except with a degree of gratitude for the information so generously bestowed, and the keen earnestness with which Dr. Gouley labored to impart surgical knowledge to his house staff.

It may not be known to many of you that during the internship of 1869-71 (a little after you, Mr. President, I believe) that Dr. Gouley (with all respect to Dr. Smith) represented what there was of real merit in genito-urinary surgery in Bellevue Hospital.

I have often regretted that I could not manipulate urethral instruments with a dexterity equal to that of Dr. Gouley. Really it was a treat to observe it and it remains so still. I have somewhat the same recollection as that of Dr. Stearns. Because I too was Dr. Gouley's house surgeon. But I do desire to say that it was due more to Dr. Gouley's forbearance than to any attribute of my own that he never spoke an unkind word to me.

It has fallen to my lot, not so much of late years as formerly, to operate for stone in the bladder. The cutting operations that I have performed most frequently are the median, the lateral and bilateral and the supra-pubic, practised in the order named. I have removed stone by perineal incision, supplemented with dilatation of the urethra, made with the finger or with a dilating agent.

Regarding the supra-pubic operation, I believe that to be the easiest of all to perform. Any one of them may be as easy, comparatively speaking, but when the bladder can be easily distended the lateral is the easier and more satisfactory operation, in my opinion.

I feel that combined crushing and washing is a measure that should be considered. To stimulate interest in that direction, I can do no better than to narrate a conversation I had with Dr. George Chismore, of San Francisco, who operates by that method entirely.

He says that it makes no important difference to him whether the patient is old or young or the stone is large or small.

He injects a 10 per cent. solution of cocaine into the bladder and then introduces the combined instrument crushing and washing alternately at a single sitting. Later, when the patient has recovered sufficiently, he repeats this procedure if necessary.

He informed me that he crushed these stones in his office and allowed the patients to go on their way. If he could crush them at one sitting, well and good, if not, other sittings were arranged.

The rate of recovery from this treatment, as stated by Dr. Chismore, is superior to that of any other with which I am acquainted. Time will not permit of more than these somewhat unimportant remarks.

**Doctor Parker Syme.**—Mr. President and Gentlemen.—It was my privilege, also, years ago, to be on the house staff under the beneficial teaching and guidance of our friend Doctor Gouley, and since the time prior to that, when I was a medical student in the University, and during my house service in Bellevue and ever since, the teachings of Doctor Gouley have been of the greatest guidance to me in all matters, and particularly those matters of genito-urinary surgery. I feel that, to-night,



in the paper that he has given, I have an epitome and a further exemplification of his teaching, and I think we are all indebted to him for the classic setting forth of this very interesting subject.

Years ago, it seems to me, bladder stone must have been more common than to-day, for the bladder stone to-day is a very rare disease for the surgeon to encounter, and more rare than during the time of my student days.

As far as lithotomy is concerned in my practice, I have had occasion to perform it only twice, except in cases associated with hypertrophy of the prostate. In these two cases I operated by the upper method, for reasons set forth by Doctor Gouley in his paper. In one case the stone was a giant stone and could not be crushed by any instrument that I know of. The other was a case of a large prostate with an infected bladder. It was before the days of modern prostatectomy, and in that case the immediate closing of the bladder would not have succeeded. The operation of opening the bladder above the pubes is the easiest operation to perform of any of these cutting operations, but in cases of inflamed bladder, in cases where drainage must be resorted to after operation, I have always felt, and I feel more strongly to-day than ever, that it is a decidedly unwise procedure if any other method may be resorted to. Where infection is present at the time of the operation, I mean where there is a more or less badly diseased bladder, with chronic cystitis, I think there is no question that the perineal is a far preferable operation. If we are operating for stone *per se*, I believe we should simply dilate the neck of the bladder, and if the stone is too large to be brought through, it should be crushed and removed as rapidly as possible.

**Dr. Robert T. Morris.**—Gentlemen.—I was unfortunately detained this evening, so that I missed Dr. Gouley's paper. As his work at Bellevue Hospital really included the prettiest technique that I have ever seen in stone in the bladder operations, so my pleasantest recollections of the operation date back to that time.

It seems to me, Mr. Chairman, that when anyone has developed expert technique, we must regard his opinions with a great deal of respect. If one has, from the nature of his work, developed another technique, his ideas may not at all conflict with those practised in another's operations. Personally, I happened to develop what is known as the easiest work; the supra-pubic work, and have given very much more attention to that. Almost all of my work has been supra-pubic work. There are several points in that connection, it seems to me, which are worthy of very nice attention. In cases of septic bladder, that Dr. Syms speaks of, we are very apt to have fermentation of residual urine, and the irritation produced by the decomposition products causes an inflammation of the bladder. Then we have various terminal infections, so that it is quite the exception not to have a septic bladder. That is, what might be fairly classed as a septic bladder, and in these cases by the supra-pubic route we can avoid the dangers of septic infection and avoid the danger of urine burrowing, by the application of two or three principles: first, a repelling of urine,

which would naturally burrow in some of these cases, and that is done by using a powder-like aristol. Aristol repels water and turns aside urine if it is rubbed into exposed tissue planes. Another resource consists in fastening the bladder to the skin or against the abdominal muscles and suturing it with catgut which is absorbed in three or four days or a week. If we use tube drainage we are asking water to run up hill, but an aspirating apparatus or capillary drainage can easily be used.

In many of the cases in which I have done the supra-pubic operation, I would, no doubt, have done the bi-lateral in children, as Dr. Gouley would have done, or the median or lateral operation in some adults, if I had happened to have developed his expert technique.

**Dr. Alexander B. Johnson.**—Mr. Chairman, and Gentlemen of the Society.—The methods that I have used in the treatment of stone have been, for the past ten years, chiefly tubes. Wherever I have thought that the bladder was in a reasonably healthy condition, and where the urethra permitted instruments of ordinary size, I have preferred to crush and wash out the stone at one sitting. And I may say in those cases the results have been uniformly good. In cases where the bladder was decidedly septic, or where the urethra would not permit the passage of instruments of ordinary size, I have done the supra-pubic operation. The method of treatment of the bladder wound, after a supra-pubic operation, has varied somewhat, according to the conditions.

In cases where it seemed to me that the condition of the bladder warranted it, I have closed the bladder wound, and in order to avoid danger of infection, I have put in a small rubber drainage tube, and have partly sutured the abdominal wound. In a good many cases the wound in the bladder has healed *per primum*. In a few cases leakage has occurred, but it has been insignificant. The bladder drains itself fairly well, the wound rapidly closes and the leakage is limited to a week at the extreme. The results in these cases have been uniformly good.

I cannot say how many cases I have done, but certainly for the past ten years I have done several in each year by one of these methods, and there have been no fatalities.

The suturing of the bladder, with the introduction of a tube is, I think, rather an important element in the doing of that kind of an operation. If the bladder wall heals kindly, the drain may be removed in two or three days. If it does not heal and leakage occurs, the drainage tube affords abundant certainty that no infiltration will occur in the tissues of the abdominal wall; and I have no reason to regret the introduction of such a drain in any case.

**Dr. J. W. S. Gouley,** (closing).—One of the early speakers mentioned the fact that stones in the bladder, here at least, are seldom allowed to reach maturity. That is true. Another said that cases of stone, in New York, must be diminishing in frequency. The cases have not diminished, but the operators have increased. That is the secret of our having so few cases.

I must again go back in relation to the stone operations in Syria and throughout the Levant. It appears that the method described by Prosper Alpino is still practised. There is

an account of the way in which a man of consequence in Syria was relieved of about a hundred stones by one of these men, who used buccal aspiration. A very interesting history of the case is published in Dr. Eve's book on rare surgical cases, although the report of this particular case appeared originally in the *Lancet*.

It is clear to those who have thought much on the indication for operations for the cure of bladder stones that it is not wise for any operator to be wedded to the supra-public or to the lateral, or the median, or to any other operation, or to lithotripsy, for each and all have their indication. Where one is indicated, all the rest are contraindicated. It is a poor surgeon who does not recognize that fact. This has been reiterated by all the writers on surgery for the last one hundred and fifty years. These very men, who were laboring to perfect the operation, were not wedded to a single method. Cheselden went through the list. The high operation, the lateral, the lateralized operation, which he thoroughly perfected, and then came the gorget. The great success of these men was due more to their skill and judgment than to the instrument used.

When I last saw Dr. Briggs, who died some years ago, he had performed nearly one hundred and fifty operations, with a death rate of one in forty-five and a fraction. These are the best results so far obtained in this or any other operation for stone in the bladder.

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## Original Article.

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### PHYSIOLOGIC THERAPEUTICS IN THE TREATMENT OF LOCOMOTOR ATAXIA.

By W. H. WALLING, A. M., M. D.,  
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In discussing the treatment of locomotor ataxia I shall confine myself to the consideration of such so-called "physiologic" measures as have been found to be the most effective in my own practice. Being thus restricted, the use of drugs will not be considered in this paper.

#### *Electrical Treatment.*

The general method of electrical treatment, to be varied as the case or the condition of the patient may demand or suggest, is as follows:

**Morning treatment.** The patient is to be partially disrobed, a sheet or loose robe being supplied for convenience. The temperature of the room should be not less than eighty degrees Fahrenheit. The patient is to be seated upon a stool, upon which has been placed a well-wetted pad connected with the cathode of either a combined galvanic and faradic battery or with the galvanic only, as may be deemed the better, and a labile anodal application of the current is to be made to the back from the nape of the neck to the buttocks, for ten to fifteen minutes, with a current intensity of ten to fifteen milliamperes of the galvanic, and as much of the secondary coil as will be pleasantly bearable. The anode may then be placed in a basin of warm water and the hands immersed in the water and five to ten milliamperes administered for five to eight minutes, with the faradic mild

as before. The feet may then be placed in the water and the same current repeated for the same length of time; the whole sitting not to exceed twenty-five minutes, and if the patient be weak, still less time should be given. A rest of one hour should follow the electrical application, when exercise or massage may be given, alternating these latter; *i. e.*, give the massage one day and the exercise the next day, for the morning treatment. After a few weeks the exercises may be given every day. Much depends upon the strength and vitality of the patient. He should not become unduly fatigued from any of these treatments.

In case the pad upon which the patient is sitting becomes unbearable, it may be changed to the lumbar region during a part of the sitting.

Where pain is a prominent feature, anodal galvanization should be given, with a current intensity of five to ten milliamperes, and a duration of five to fifteen minutes. In many cases the tincture of aconite may be applied with the anode with good effect. Fifteen to twenty drops of the tincture may be dropped upon the anodal pad, for such application. For this purpose a pad or disc electrode may be used. The following formula will also be found to be useful:

Take of

Tincture of aconite.....fl. dr. three

Extract of aconite.....gr. twenty

Chloroform.....fl. dr. three

Mix. Signa. Saturate a paper or cotton disc and apply with the galvanic anode for ten minutes, with a current intensity of from five to ten milliamperes.

This is a strong solution and should be used with care, but is very effective for the relief of pain, if not too deeply seated.

At first thought it might seem dangerous to apply so much aconite to the surface, but it must be borne in mind that in reality but a small portion is absorbed. I have never had any unpleasant symptoms following such applications.

**Afternoon Treatment.** In the afternoon, at four o'clock the static induced current may be given to hands and feet for five minutes to each, *i. e.*, the pads are to be held in the hands for five minutes, and then placed upon the feet, one upon each foot, for the same length of time. Follow this with the withdrawal of sparks from the whole spinal region, the inner side of the thighs and the soles of the feet. Quite heavy sparks should be drawn from each side of the spinal column. Potential alternations or the Morton wave current and the breeze may then be given, the whole to be followed by a period of rest.

When giving the breeze from the pointed electrode, the instrument should be held as near to the patient as is comfortable to him, and the breeze applied with rythmical up and down or side to side movement, and not allowed to rest in any one position, as it may become quite irritating. The rythmical movement is soothing in character as a rule. If held too near the body the sensation will be that of the application of a blast of hot sand. If too far off, the sensation will be like a cold breeze playing upon the parts. As a rule, this application should produce a sense of comfort. It is really a succession of very fine sparks applied with great rapidity.

The application of the high frequency current by means of glass vacuum electrodes is highly sedative, and may be administered as frequently as may be needed. This modality is especially adapted to



neuralgias of a superficial nature, as the current can be regulated to a gentleness attainable by no other form of electrical application excepting the galvanic.

The chemical rays projected from these tubes seem to be of considerable utility, but the vibration is of greater importance. In using these tubes, the connecting wire is to be attached to the cathodal side of the static machine, as that pole gives the stronger chemical ray. The anode should be grounded in making these applications.

The force of the tube may range from a scarcely perceptible current, the spark gap being very slight, to as strong a vibration as may be deemed wise to apply; a gap of one inch being as strong as should be used as a rule.

In two cases of supra-orbital and sub-occipital neuralgia I found that while sedation was rapidly attained by the use of the vacuum electrode, the pain returned in a short time with renewed violence. I have noticed the same result in a few cases from the cataphoric use of the tincture of aconite and of a solution of morphin sulphate. These exceptions were referred to an idiosyncrasy in the individuals, the cases being too few to establish a rule.

The same result has also been noticed from the application of radium—rapid sedation, with subsequent return of the pain with increased severity.

In each of these cases the application of the X-ray produced a much better result.

For the relief of the pains of locomotor ataxia the X-rays are of great use. Applications may be made daily or every other day, as may be deemed better, being careful not to produce a burn. Different areas may be rayed on alternate days or less often, as above.

In some cases where the pain in the limbs is very severe, I have applied the faradic current by means of the wire "scourge" electrode, with as strong a current as could be obtained.

A typical case may be cited: Mr. J., a farmer, fifty-seven years of age, was admitted to the Medico-Chirurgical Hospital suffering from advanced tabes, the pains in the limbs being very severe, accompanied with anesthesia. Narcotics of every description had been administered both orally and hypodermatically without any appreciable effect. A half hour's treatment with the anodal scourge attached to a high tension secondary faradic coil, produced almost complete cessation of the pain, allowing several hours of sleep. The case was too far advanced to do more than palliate the symptoms, but great comfort was derived from the faradic applications.

The treatment, as in all neuralgias, may be repeated as often as necessary—twice or even more often in the day, if need be. The duration of such treatment should not, as a rule, exceed twenty minutes, but each case must be treated upon its merits. The invariable rule, however, should be never to tire a patient, and not to hurt him if possible to avoid it.

Hot compresses are often of great benefit for the relief of pain, followed by turpentine stupes, care being exercised not to act too strongly upon the skin in their application.

If the case be complicated with a neuritis, anodal galvanization should be administered, with a current intensity of three to five milliamperes, giving what is called a descending current, *i.e.*, the cathode is to be placed in the hand of the affected arm, or upon the foot of the affected limb, with the anode above. In some cases of neuritis, the

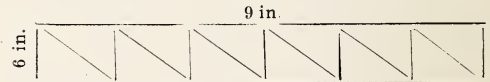
tincture of aconite was used upon the anode; but as a rule better results were obtained from the current alone. In others the vacuum tube was used, with varying effect. The galvanic current was given the preference in most cases.

*Massage* is of great benefit in tabes, if properly administered. It should be given only by one fully qualified for such work, the treatments to be varied to suit the case. The sittings for massage should not exceed fifteen minutes as a rule. In neuritis, massage must not be directly applied to the parts affected, but the adjacent tissues may be gently manipulated.

*Suspension* has had its strenuous advocates, but there is danger of injury to nerve trunks from too severe pressure.

*Exercise.* Proper exercise is of the first importance in the treatment of tabes, and should be faithfully carried out with the aid of an attendant, under the supervision of the physician.

In order to insure precise movements, draw parallel lines on the floor, six inches apart, and as long as is convenient, say ten or twelve feet, with zig-zag lines crossing between them, at distances of nine inches, as in the accompanying diagram.



The lines crossing at right angles are not necessary, in practice, and are only drawn in illustrating the distance. Let the patient place the heel of the left foot at the end of the line, as shown in the drawing, then take the step of nine inches with the right foot, placing the right heel upon the next point of the triangle. Thus, step by step, he may practice the exercise, keeping the feet in line as much as possible. He is to be aided by the attendant if necessary, but should exert as much control of the muscles himself as is possible. If the patient cannot cover nine inches at first, let him take as large a step as he may be able. He must follow the straight line in any case, and accomplish the full step as soon as possible. From the nine inch step he should progress until he may take a full stride, or as much as may be deemed advisable in the case. This exercise should be given twice or three times daily, and short of fatigue. Five, ten, or fifteen minutes may be thus given with intervals of rest if desired. In any case, do not tire the patient. The swinging of dumb bells, bag punching or other movements designed to bring into play all the muscles of the body are to be prescribed, as may be deemed advisable by the physician.

The application of deep massage by means of some one of the vibratory apparatuses on the market has been highly recommended by some practitioners. Care should be exercised not to overdo such stimulation.

Diet, hygiene, cheerfulness and diversion should be accorded their full share in the treatment.

Dr. Josiah Hornblower, who keeps a drug store in Jersey City, recently caught his old horse Bill in the act of eating a pigeon, feathers and all, in his stall. Bill had killed the bird with a vicious kick while it was picking up oats. The discovery of pigeon's feathers in the stall on several occasions since then leads the doctor to believe that Bill is fast becoming a carnivorous animal. The horse has several times eaten beef stew which had been placed in the yard for the watch dog's dinner.

# THE JOURNAL

OF THE

Medical Society of New Jersey.

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**JANUARY, 1905.**

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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## ADDISON'S DISEASE, WITH AND WITHOUT ADRENAL TUBERCULOSIS.

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This is the title of an interesting paper by Withington (*Medical News*, September 24, 1904), which discusses some of the clinical and etiological aspects of this disease in an instructive way. That we are still far from a satisfactory explanation of the true cause of the symptom-complex which is called Addison's Disease, is but too evident.

However, the mystery which surrounds it does not detract from the interest with which pathologists and clinicians alike regard a pathological condition, which has so far proved nearly or quite irresponsive to treatment, both prophylactic and curative.

Whether fuller light upon the etiology would point the way to an efficient therapy is merely a matter of speculation.

We can not agree with those writers who contend for the "unity" of the disease and hold that in every case there must be present a tuberculosis of the adrenal glands.

In short, it seems to us a begging of the question to assert that two cases presenting identical aspects clinically, but differing pathologically to the extent that the adrenals may be tuberculous or cancerous or, to all appearance, normal, are different diseases.

This is equivalent to saying that under the title Addison's Disease, two or more distinct diseases are classed. But if they were distinct diseases, they ought to present different symptoms, which they do not.

We should, therefore, prefer to say that while Addison's Disease probably depends upon an interference with, or prevention of the functions of the adrenal glands, we are not sure that it is always so caused.

Some writers have asserted that there must be present degenerative changes in the semi-lunar ganglion, or the splanchnic nerves. But a sufficient number of cases have been recorded in which such changes have been absent to disprove this hypothesis.

That one or more of the symptoms usually found in Addison's disease may be absent is well known. Although, as Withington points out, a positive diagnosis is impossible in a case in which there is no bronzing of the skin.

In concluding his paper, Withington is disposed to adopt what was practically Addison's own theory; namely, that any disease producing "adrenal inadequacy may cause the symptoms, and that the part played by tuberculosis is simply that it happens to be the most frequent destructive lesion of the adrenals."

It is reasonable to assume that in those cases with normal adrenals (Lewin found 20 per cent. of 281 cases in this condition) some nervous or other change has occurred which either vitiates or prohibits the adrenal secretion without producing a palpable lesion of the gland.

Naturally the adrenal extract has been administered for the cure of Addison's disease, and in cases not depending upon tuberculosis or cancer, it is reasonable to look for improvement from this treatment. We quote Withington's concluding paragraph:

"Two views have been held as to the function of the adrenal glands—one expressed by Huisneau that they attract to themselves certain toxic products originating from intestinal decomposition (*e. g.*, pyrocatechin) and from muscle action (*e. g.*, phosphoric and lactic acids), rendering them harmless and preparing them for excretion by the kidneys. The other, that there is a synthetic production of a substance essential to the maintenance by the sympathetic system



of the nutrition and normal tone. The latter view is at present more favored by physiologists. But it is perhaps easiest to explain the symptoms of Addison's disease by assuming that both these functions are fulfilled by the adrenals. The failure of the first explains the toxemia, the failure of the second the pigmentary and other nutritional changes."

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Dr. Jones, instead of receiving the support and encouragement, which his manly and unselfish course deserves, seems to get abuse from some, misrepresentation from others, and the cold shoulder from all.

For our part, we never could understand how medical men, or any other men, could reconcile it with their consciences to persistently say one thing and do another.

Medical societies with great particularity will lay down elaborate rules of conduct, which they are pleased to call ethical, and then wink at the disregard of these same high sounding laws by their publication committees and advertising agents.

One would think that no medical man, except Dr. Jones, was ever born with a sense of humor; otherwise, rich and powerful medical societies would not make themselves ridiculous and stultify themselves for gain. While calling aloud to the whole world that they are spotlessly pure and exquisitely ethical, some of them have their hands sunk deep in the mire and their pockets lined with the money that is the price of their shame and the evidence of their duplicity.

We would fain believe that much of this is due to carelessness and the unbusinesslike habits of medical men. But that excuse constantly grows more diaphanous.

The young ostrich thinks himself hidden when his head is in the sand, and our "ethical" medical writers and publishers esteem the flagrancy of their conduct covered up when they can point to the undeniable fact that other journals are equally guilty.

What folly! what hypocrisy! Like the Pharisees of old, they make tithe of mint and cummin and neglect the weightier matters of the law.

## RESTRICTION OF CHILD LABOR IN NEW JERSEY.

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Our State Legislature at its last session passed an act of great interest to members of the medical profession, and to all persons who have given any consideration to the evils of child labor. The full title of the act is "An Act regulating the age, employment, safety, health and work hours of persons, employees and operatives in factories, workshops, mills and all places where the manufacture of goods of any kind is carried on, and to establish a department for the enforcement thereof."

This act is not the first attempt that has been made by our legislators to prevent and regulate employment of young children in factories. The first law for that purpose was passed in 1883. It forbade the employment of any boy under twelve and of any girl under fourteen in any factory, workshop, mine or establishment where the manufacture of any goods whatever is carried on. It also forbade the employment in any such factory of any child who should not have attended some public day or night school, or some well recognized private school within twelve months immediately preceding such employment; such attendance to be for five days or evenings every week during a period of at least twelve consecutive weeks, which, however, might be divided into two terms of six weeks each; as evidence of such attendance, a certificate was required to be presented to the proposed employer, signed by the teacher; which certificate was also required to state the age of the child on information and belief. An exception was made in the case of orphan children, who might be employed without such attendance "where necessity may seem to require" upon a permit from the factory inspector. Furthermore, no child under fourteen could, under the former law, be employed more than an average of ten hours per day or sixty hours per week.

Numerous supplements to this act have been passed from time to time enlarging the number and powers of factory inspectors,

but no substantial change has been made in the law until the act of 1904.

The necessity for a new law appeared when it was discovered that the old law had become practically a dead letter, partly for lack of proper attention from the factory inspectors and partly because it was easily avoided by deceiving the employers as to the age of the children.

The new act forbids the employment of any children under fourteen in factories, thereby increasing the age limit two years in the case of boys and making it the same as that of girls. It forbids the employment of children between the ages of fourteen and sixteen for more than ten hours per day, or for more than a total of fifty-five hours per week, and thereby at once shortens the hours within which children may be employed and increases the age of children affected by the restricted hours.

The most radical change in the new legislation is in the machinery provided for the enforcement of the restrictions. The new act creates a new department of the State government to be known as the Department of Labor, having a main office in Trenton. The head of the department is a Commissioner of Labor appointed by the Governor, by and with the advice and consent of the Senate, whose salary is fixed at \$2,500 per annum. With the approval of the Governor, the commissioner shall appoint an assistant commissioner, who shall be an experienced machinist and shall have a salary of \$1,500 per annum. The Governor also appoints eleven inspectors, two of whom shall be women, and each inspector has a salary of \$1,000 per annum. All appointments are for three years. The commissioner may divide the State into districts for the purpose of inspection, and he is charged with the duty of enforcing the provisions of the act.

It is probably too soon to predict whether the act will prove in all respects workable, and whether it will be effective in accomplishing the purpose at which it aims with respect to preventing the employment of minors under fourteen and regulating the

employment of minors between fourteen and sixteen. Much will depend upon the activity of the officials of the department, and whether those of the general public who are in a position to know of violations of the law, are zealous in the performance of their duty to inform the proper official of every case of violation. There is already evidence that many of the large employers of labor in the State will cordially co-operate with the department, and if such co-operation becomes general the few who may desire to violate the provisions of the act will easily be detected and prevented from doing so.

Every physician whose field of work is in or near a factory town will be sure to know it if there is any considerable employment of children contrary to the provisions of the act, and should feel himself charged with the responsibility of reporting to the inspector of his district every violation of the act which may come to his knowledge. If this action does not prove effectual he should take it to the Commissioner of Labor, and, if necessary, to the Governor himself.

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#### ARE THE DENTISTS OF NEW JERSEY WIDER AWAKE THAN THE DOCTORS?

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A dentist has recently been convicted of illegally practicing his profession in Vineland, in this State, and upon appeal, the Supreme Court has affirmed the conviction.

Finding himself unable to continue his illegal practice, the accused has taken steps to comply with the law and sentence was suspended.

Is it not high time that the different county medical societies took steps to prosecute and drive out of practice the irregular practitioners throughout the State?

We have been informed that there are at least fifteen persons illegally practicing medicine in Newark. Doubtless there are a greater number than that. It is the business of the Essex County Society to ferret these people out and bring them to justice. The method is simple enough, the results not al-



ways satisfying, because it is so hard to obtain evidence strong enough to convict.

Therefore each county society should retain a competent attorney, who should report to the society regularly all infractions of the law regulating medical practice and who should be prepared to bring the guilty to justice as promptly as possible.

No one will do this except the county societies and if their members have not enough public spirit, not to mention an eye to their own interests, to move in the matter, they will richly deserve to have the quack flaunting his sign next door to them, and to have the public conclude, as they naturally will, that one style of practitioner is as good as the other. For do not both use the same title, drive about in similar vehicles and to all appearance enjoy the same protection from the law?

Let us remember that only part of our duty is done when we have complied with the law ourselves. We owe it to the public to protect them as far as we may from irregular and incompetent practitioners, who have not complied with the law.

### LEGALIZATION OF OPTOMETRY.

Dr. Van Fleet, chairman of the Committee on Legislation of the Medical Society of the State of New York, calls attention in a letter published in *American Medicine* December 3d, 1904, to a renewed attempt on the part of certain opticians to obtain the passage of a law by the State Legislature authorizing the establishment of a State Board of Examiners to license persons to practice optometry in that State, and urges vigorous opposition to this mischievous project.

A similar move was made in New Jersey last year and will undoubtedly be brought up again in 1905.

We call upon the legislative committee of the State Society and upon the different County Societies and every member thereof, to oppose such an attempt with all possible vigor.

Year after year we must be on our guard against such efforts to evade our beneficent laws which are intended to protect the people by making it impossible for anyone to practice medicine or any branch of it in our

State, without having duly complied with the provisions of the law in respect to a prescribed course of study, and by passing a satisfactory examination before the State Board of Medical Examiners.

### PATENT MEDICINE ADVERTISING AGAIN.

The following letter cannot fail to interest our readers, and we, therefore, give it entire:

*Dear Dr. Jones:* In reply to your letter I would say that to repeat all the comment and criticisms would be too long a story; I will tell you more of them when I see you again. Some say the editorials are not dignified enough; that you should not discuss the advertising question; that you are being imposed upon (!); that your JOURNAL is operating for the benefit of a few good houses and the German chemical manufacturers. Other comments are too personal and abusive to be written. There are a number of concerns that would give almost anything to see your JOURNAL go to the wall. I learned of one house that was wildly indignant because, they said, the *Journal A. M. A.* had required them to give a formula on account of what you had published. It is certainly remarkable the commotion your little JOURNAL is making. You have arrayed against you the manufacturers of secret proprietary stuff, editors of personally or privately owned journals, advertising agencies and even some of the reputable houses. Nevertheless, it seems to me that they will have to come your way in time, especially if other state journals will adopt a similar policy. Of these, only three seem to be clean; Colorado, Pennsylvania and New Jersey. How medical societies will permit such atrocious advertisements as are appearing in the *Missouri* and the *New York Association Journals*, I cannot understand; they are worse than the *Journal A. M. A.* ever was. I am very glad to say that you have a few very warm and enthusiastic friends in the business world, who decidedly approve the policy and course of your JOURNAL and appreciate the work your Society is doing. I learned through a common acquaintance that the O'Gorman Advertising Agency is clipping the articles in which you attack or mention unfavorably different houses, and sending the clipping to these concerns, trying to influence them against your JOURNAL. I learned, the other day, from one of your advertisers who is most enthusiastic in approval of the JOURNAL that a certain house in this city had offered to pay for his advertising in three other journals—any three he wanted—if he would withdraw his advertisement from yours. He assured me that he would not. If you can keep up the fight for another year and force the Trustees of the A. M. A. to adopt a policy of ethical decency in the conduct of the *Association Journal*, your fight, I think, will be won. Personally I wish you every possible success. Cordially yours,

*California State Journal of Medicine.* A. B.

**Professor William H. Welch**, of Johns Hopkins University will lecture before the Essex County Medical Society in the hall of the Free Public Library, in Newark, on Tuesday, January 17th, 1905, at 8.15 P. M. His subject will be announced on the cards of invitation.

## A GOOD APPOINTMENT.

We have already had an opportunity to congratulate Governor Murphy for his enlightened and philanthropic action in the matter of the establishment of the State Sanitarium for Tuberculosis.

We now again felicitate him upon an excellent appointment to the State Sewerage Commission, viz., that of Dr. Frederick C. Jacobson, of Newark.

This gentleman has evinced a peculiar fitness for sanitary work, and his appointment, being entirely non-political, should evoke more than a passing comment from the medical profession and from good citizens generally.

*The Committee on Scientific Work desires to give notice that interesting original papers from members of the Society are desired for the next annual meeting.*

*The titles and a brief synopsis of each paper should be in the hands of the committee by March 1st, 1905, so that a properly balanced program may be arranged and, wherever it seems advisable, a suitable discussion upon the subject of the paper may be provided for.*

*Address all communications and inquiries to*

TALBOT R. CHAMBERS, M. D.,  
Commercial Trust Building,  
Jersey City, N. J.

## OBITUARY.

**William L. Newell, M. D.**, one of the ablest and best-known physicians of South Jersey, died at his home in Millville, November 27th.

He had been a practitioner in that town for a half century, and during the Civil War was a surgeon in the United States Army. For many years he had been surgeon to the Pennsylvania Railroad Company.

He was a permanent delegate to the State Society from Cumberland County and a member of the American Medical Association and of the Society for the Benefit of the Widows and Orphans of the Medical Men of New Jersey. He was also county physician in Cumberland County.

He graduated in medicine at the Jefferson Medical College in Philadelphia in 1859. He leaves a widow and one daughter.

**William Edward Carroll, M. D.**, died at St. Michael's Hospital, in Newark, December 2d, 1904, of pneumonia. He graduated at the College of Physicians and Surgeons, New York City, in 1884, and had been one of the gynecologists to St. Michael's Hospital since his graduation. He was a member of the State Society and of the American Medical Association and the Society for the Benefit of the Widows and Orphans of the Medical Men of New Jersey. In his younger days he had been prominent in social life. He enjoyed the friendship and esteem of a large number of people, both lay and professional. He leaves a widow and one brother, the Reverend Lawrence C. M. Carroll, of Jersey City.

**Clarence Willard Butler, M. D.**, a leading homoeopathic physician of New Jersey, died at his residence in Montclair from cancer of the throat, on December 20th.

He was born in Ohio in 1848, and received his medical degree in 1872. He settled in Montclair the same year and continued there in active practice until the past few months.

**Addison W. Taylor, M. D.**, at the time of his death first vice-president of the Medical Society of New Jersey, and for a number of years secretary of the Burlington District Medical Society, died from apoplexy, at his home in Beverly, on February 21st, 1903.

He was born in Shrewsbury, Monmouth County, New Jersey, March 30th, 1845. He graduated in the arts at Princeton College in 1866, and in medicine at the University of Pennsylvania in 1871.

He began the practice of his profession in Beverly and continued it in the same place until his death 33 years later. He was a member of the city council for four years and its president for five. He was also a member of the board of education and president of the Reform Club. He was a Free Mason and an Odd Fellow, and a member of the fire company. He was also an elder in the Presbyterian Church.

Members of the common council of Beverly, the board of education and about thirty physicians representing the State and Burlington County Medical Societies, as well as members of the various social organizations to which Dr. Taylor belonged were present at the funeral ceremonies. These were well attended and impressive. The entire community uniting in the last tribute to a man who had labored so long and faithfully in their midst. The flags on the public buildings were at half mast and the city hall was draped in black in memory of the deceased.

Dr. Taylor is survived by a widow and three sons.

Resolutions of condolence were adopted by the Beverly city council, the board of education and the Reform Club and published in the *Beverly Banner*.

**Moses D. Knight, M. D.**, was born near Lansdale, Pennsylvania, February 3, 1839, and died at Clinton, Hunterdon County, New Jersey, March 6, 1903. He was a son of Joseph and Rachel (Davis) Knight and received his preliminary education at Attleboro Academy, Attleboro, Pennsylvania.

At twenty years of age he began the study of medicine with Dr. A. D. Markley, of Montgomeryville, Pa., afterwards attending lectures at the University of Pennsylvania, where he received his degree in medicine in 1861.

He practiced for 34 years at Little York, Hunterdon County, New Jersey, enjoying a large and lucrative practice.

In 1895 Dr. Knight moved to Clinton, living there until his death.

He was a Free Mason and took an active interest in politics and educational matters.

He married Mary Marlatt of Warren County, Pa. Two sons were born of this marriage, who are men of reputation, the elder having adopted his father's profession.



A friend in writing of him says: "Affability, hospitality, honesty, modesty and genuine worth were some of the qualities which adorned his character. \* \* \* His medical associates miss him, for his experience was vast and his observation keen. The county, state and national Medical Societies will always suffer by the loss of such men as Dr. Moses D. Knight."

**Virgil M. D. Marcy, M. D.**, died at Cape May City, January 21, 1904, aged 81. He was the son of Dr. Samuel S. Marcy, a descendant of a prominent New England family. He was born at Cold Spring, New Jersey, and entered Yale College at 17, taking his degree in 1844. He graduated in the Phi Beta Kappa, and pulled the stroke oar in the university boat crew. In 1846 he received his degree in medicine from the University of Maryland. After practicing three years in Virginia he took up his father's practice in his native place, moving from there to Cape May after a few years, where he entered into partnership with Dr. James Mecray. This partnership continued twenty-five years.

For over fifty years he was a consistent member of the Presbyterian Church, serving over forty of these as an elder.

He was of a jovial and kindly disposition, and true to the high ideals of his profession.

The name Marcy has been for many years prominent in the medical circles of New Jersey. The father of Dr. Virgil M. D. Marcy was a physician, as was his brother, Alexander Marcy, at one time prominent in Camden. Two sons, Dr. Alexander Marcy, of Riverton, now second vice-president of the State Society, and Dr. William Marcy, of Camden, survive him. A grandson, bearing the same name, is now practicing in Cape May.

A worthy and an honorable record.

**Charles K. Law, M. D.**, died at his home, 82 Glenwood Ave., Jersey City, on December 13th, of peritonitis. He was 36 years old and graduated from the Medical Department of the University of New York in 1893.

He belonged to the University Club, the Practitioners' Club of Jersey City, and to the Hudson County Medical Society.

**Thomas Adams Curtis, M. D.**, died from pneumonia at his home in Red Bank, in December. He was 43 years old and graduated from the College of Physicians and Surgeons, N. Y., in 1886. He leaves a widow and two children.

Dr. J. Ackerman Coles, of Newark, has presented a large house and twenty acres of land near Westfield to the Newark Orphan Asylum Association.

Dr. Coles has agreed to erect two dormitories on the property.

The gift is made in memory of the donor's mother and sister.

Dr. Simon Flexner, director of the Rockefeller Research Laboratory, laid the corner stone of the new building at 65th street, near Avenue A, New York City, recently. He was assisted by Professors Herter, Holt and Pruden, officers of the institution. A public dedication will take place when the structure is completed.

A small hospital will be built during the next two years. The diseases of the patients in this hospital will be studied by every known method of clinical research.

Dr. Elizabeth Mercelis, of Montclair, has been appointed visiting physician to the New York Infirmary for Women and Children.

At Montclair, a fair held in December for the benefit of the Mountainside Hospital is said to have realized \$5,000.

The number of deaths in the world from tuberculosis annually reaches 1,000,000, which is equal to 2,000 a day, or two every minute.

The State Health Board of Texas requires a suitable number of cuspidors to be placed in each sleeping and passenger coach, the cuspidors to contain a disinfecting solution.

Goepel suggests the drawing on of a pair of thread gloves over rubber gloves before a surgical operation. This gives the operator the advantage of both kinds of gloves.

Miss Nellie Yetman, of Manalapan, was reported last month to have slept for a fortnight almost continuously. She could, at times, be aroused, but quickly lapsed again into unconsciousness.

## DR. LEDERLE ON FOOD ADULTERATION.

Dr. Ernst T. Lederle, who is at present in Germany, prepared a paper on the above subject for the International Congress of Arts and Sciences at St. Louis. It was in part as follows: "An important field is now opening to the sanitarian in the investigation of manufactured food products. The extent to which commercial adulteration and substitution is now practised would be absolutely incomprehensible to the layman. Competition in trade has become so keen and the substitution of inferior constituents in foods so general that the honest manufacturer has hardly a chance to succeed. The use of injurious preservatives has also been practised to a scandalous extent. The only remedy for this evil condition will be the passage and enforcement of a Federal pure food law. Such a measure has already been before Congress, but in the absence of an aroused public opinion, the mysterious influences which bar the way of much good legislation at Washington have been able to kill it. Much the same opportunity is offered in a campaign against the vendor of patent medicines and secret nostrums. Few people understand the extent to which these articles undermine the public health, and there has been little or no attempt to assume official control over their production and sale. The remedy is official control. Makers of patent medicines, nostrums, pills, etc., should be required to place upon each bottle or packet the exact ingredients it contains, and should be prosecuted for any deviation which can be shown to be detrimental to the health of persons using the remedy, or designed to perpetrate upon them a commercial fraud."—*Medical News.*

**NO LAW AGAINST SELLING BABIES.**

Though the papers of the city have recently exposed several places where infants are bought and sold, officials say there is at present no law by which those engaged in the business can be prosecuted. The only hold is in arresting the people for cruelty, and this is seldom possible as the infants are cared for perhaps better than at home. Instances are known where infants are loaned over night for \$3 to \$5.—*Medical News.*

"Don't you despair of ever building up a practice?" was asked of a certain young medical student.

"Oh, no."

"But you must admit that the profession is already overcrowded?"

"Oh, yes," said the youngster, "but I shall graduate just the same, and those who are already in the profession will have to take their chances."

Dr. Henry K. Pancoast, of the University of Pennsylvania, may yet solve the negro problem. He has discovered "that the continued use of the X-rays on negro patients produces a gradual change in the shade of the skin and that in time it becomes white."—*N. Y. Sun.*

The following named gentlemen have been elected officers of the New Jersey Sanitary Association for 1905. president, Norton L. Wilson, M. D.; 1st vice-president, H. M. Herbert, C. E.; 2nd vice-president, Gordon K. Dickinson, M. D.; 3rd vice-president, J. B. Dunklee, C. E.; chairman executive council, William Gray Schauffler, M. D.; secretary, James A. Exton, M. D.; treasurer, George P. Olcott, C. E.

A more delightful or instructive lecture has perhaps never been given in Newark than that of Dr. Musser, on November the 22d, on "Anterior-Sclerosis and its Management" before the Essex County Medical Society.

The hall of the Free Public Library was well filled by the members of the society, who listened to the learned speaker with the closest attention.

At a meeting of the Board of Trustees of the Society for the Relief of the Widows and Orphans of Medical Men of New Jersey, held at the office of Dr. Ill, in Newark, the resignation of Dr. E. L. B. Godfrey was accepted and the following named medical gentlemen were elected to membership. Drs. Smith, Epstein, Randall, Shangle, Frey and Peirson.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D. 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the authors of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript. Matter received after the 20th of a month can not appear in the next issue of the JOURNAL.

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## ACUTE CATARRHAL CONJUNCTIVITIS.\*

BY ALFRED CRAMER, M. D.,  
CAMDEN, N. J.

I have been led to prepare a short paper on this subject for two reasons:

1.—It is a highly contagious disease, and an exact and early diagnosis will, if proper measures be taken, both prevent its spread, and minimize the danger of more serious forms of conjunctivitis being treated as acute catarrhal conjunctivitis.

2.—Unfortunately, many cases of this disease receive no professional treatment until the usual home remedies have been tried. These consist for the most part of poultices of various kinds, which invariably aggravate the condition so that a very atypical form of the disease is presented. It is undoubtedly true that the general practitioner sees a greater number of these cases than does the oculist; hence the importance of his not only knowing the usual symptoms of the disease, but also being familiar with the dangers of a wrong diagnosis.

Acute catarrhal conjunctivitis is one of the forms of conjunctivitis, in which the etiological factors have been determined. One factor is the presence of a small bacillus, known as the Koch-Weeks bacillus, first mentioned by Koch in 1883 and proved to be the specific bacillus of this disease by Weeks in 1886.

\*Read at the 138th Annual Meeting of the Medical Society of New Jersey.

This bacillus resembles that of mouse-septicaemia, and measures 1-2m. in length and about 0.25m. in breadth, and stains readily with the ordinary anilin dyes. It causes a majority of the cases of this disease, and produces that form popularly known as "pink-eye."

According to the investigations of Gasparini, and Gifford, it would seem that an acute catarrhal conjunctivitis may be caused by the pneumococcus of Fränkel. This form of the disease is clinically difficult to differentiate from the ordinary variety, and Weeks gives it the name of "pneumococcic conjunctivitis."

The disease is commonest in warm and changeable weather, and all ages are liable to the affection. One attack does not produce immunity. These facts are exemplified by the following statistics taken from the case books of the Howard Hospital, Philadelphia, in the clinic of Dr. William Campbell Posey. They cover a period of nine years, from March, 1895, to March, 1904, during which time there were 6,449 new cases treated in the eye dispensary. Of this number, 335 were diagnosed as acute catarrhal conjunctivitis; a trifle over five per cent.

Arranging them collectively in the months in which they occurred, we have the following result: in January, 12; February, 23; March, 25; April, 35; May, 39; June, 26; July, 22; August, 55; September, 34; October, 16; November, 21; December, 26. The large number occurring in August is prob-



ably due to the fact that this is the hottest month in the year, and there was a history of 20 of these cases having made use of a public bath, during this month.

There were 175 males and 160 females affected, practically an equal number.

There were 13 cases less than one year of age; 54 cases between one and five years. Altogether, during the first decade, there were 129 cases. During the second decade there were 61 cases. In the third decade, 52 cases. In the fourth decade, 49 cases. In the fifth decade, 24 cases. In the sixth decade, 12 cases. In the seventh decade, 8 cases. It would seem that there were more cases of this disease during the first ten years of life than at any other time. It is a question whether this is not due to there being more people of this age than of any other.

The rather large number of cases of acute catarrhal conjunctivitis here tabulated can be explained in part by the fact that the Howard Hospital is located near a neighborhood where the inhabitants are closely crowded together. This is always a favorite breeding place for a contagious disease.

The period of incubation is 36 to 48 hours, during which time the patient experiences nothing further than a slight itching of the eyes. He usually becomes aware of the disease, on the morning of the second day, when, upon awakening, he finds the margins of the lids glued together. Following this there is a burning sensation of the lids, and the patient often complains of a sensation of there being sand in the eyes. Vision is only slightly affected. Towards evening a muco-purulent secretion becomes quite marked. The secretion is at first thick and ropy, and may be gathered into long strings of muco-pus. During the third day all of the symptoms have increased, and by the fourth day the disease has developed into a severe form of conjunctivitis, while the secretion has assumed a yellowish color, and become quite copious. This marks the height of the disease. Occasionally, the lids at this time become decidedly swollen, and oedematous. The entire conjunctiva is deeply injected, giving it a vivid red color, hence the name "pink-eye."

The swelling of the conjunctival membrane is noticeable in opaque velvety layers, particularly in the retro-tarsal folds. The acute stage lasts from three to seven days, during which there may be slight discomfort or actual pain.

As the disease lessens, the secretion becomes less copious, but thicker, and (what is almost pathognomonic of this disease) there is a collection of bright yellow secretion at the inner angle of the eye. The swelling of the lids and of the conjunctiva slowly disappears; but sometimes a feeling of dryness of the conjunctiva persists for a long time.

As noted above, the clinical symptoms of the pneumococcal variety of this disease, are difficult to distinguish from the foregoing; they are apt, however, to be milder. Both eyes are usually affected, sometimes simultaneously, sometimes one eye a day or so in advance of its fellow.

The disease is extremely contagious. It frequently becomes epidemic where large bodies of people are crowded together, as in tenement-houses, asylums, barracks, schools, and in penal institutions, etc. The disease is probably communicated by means of towels, common bathing water, and by direct contact. The germ may also be carried by the air. As before mentioned, the public bath appears to be a common disseminator of the malady. In the Howard Hospital cases, 72 gave a distinct history of having caught the disease from others.

All inflammations of the conjunctiva have certain symptoms in common, such as photophobia, increased and usually altered secretion, and a change in the appearance of the conjunctiva, as shown by increased redness. Within certain limits, the severer the inflammation the more the symptoms resemble those of other inflammations of the conjunctiva.

In typical cases of acute catarrhal conjunctivitis, the diagnosis is comparatively easy. When, however, it has received no treatment, or has been mistreated by the applications of bread and milk poultices, flax-seed or tea leaves, the conjunctivitis becomes much more severe, and the diagnosis becomes much more difficult. Such cases have been mistaken for gonorrhoeal conjunctivitis, and even for diphtheritic conjunctivitis, when a false membrane was present. In such cases a bacteriological examination alone will clear up the diagnosis. While there are other diseases with which acute catarrhal conjunctivitis has been confused, it has been due rather to ignorance than to any similarity of symptoms. Diagnostic symptoms of this disease, are the character of the secretion, and its collection in the inner canthus. In most of the conjunctival inflammations there will be an in-

jection of the deeper tissues of the eye (ciliary injection), which is not present in acute catarrhal conjunctivitis, unless an ulcer of the cornea be present.

Phlyctenules, pseudo-membrane, and ulcers, sometimes complicate the disease. To refer once more to the Howard cases, there were noted eleven cases in which there were phlyctenulae, one of false membrane, and one in which an ulcer had developed.

With proper treatment, the prognosis is favorable in almost every case, although relapses and recurrences are common. The disease is apt to be exceedingly troublesome if it is not properly treated. The prophylactic treatment is of the greatest importance. It consists in strict quarantine while there is any secretion. Patients must use their own towels, and be careful to destroy all material contaminated by the secretion from the eyes.

The treatment of the disease is simple, and very satisfactory. Cold applications should be made to the lids during the acute stage, and at frequent intervals during the day. The eyes should be kept thoroughly clean, with frequent applications of boric acid solution (gr. 10 to the ounce). Chloride of zinc seems to act almost like a specific in the majority of these cases. It is used in the strength of one grain to the fluid ounce. Sulphate of zinc, (gr. 2 to the ounce) is also much used. A 5% solution of silver nitrate does much good when applied to the lids after the acute stage has passed. This should be done but once daily.

In conclusion, we would strongly urge a bacteriological examination in every doubtful case of conjunctivitis. This does not entail any hardship, for the State supplies us with a bacteriologist who is within reach of all. It has been estimated that 60% of the blind in the asylums of Philadelphia are blind as the result of one of the forms of conjunctivitis. It would seem that a certain number of these are blind as the result of carelessness, or ignorance, or both.

## DISCUSSION

**Dr. T. R. Chambers of Jersey City.**—I believe no catarrhal inflammation exists unless bacilli or "bugs" cause it. There are various bacilli that may cause conjunctival inflammations, for instance, the gonococci, the Friedlander or Weeks bacillus, and others which may not only cause acute catarrhal conjunctivitis but an acute trachoma. The most skilled oculists are often unable to tell the difference between an acute conjunctivitis and an acute trachoma. An acute trachoma may pass into

a chronic trachoma with thickening of the eyelids, cicatricial contractions, and a resulting pannus or blindness. It is a dreadful disease. The gonococci will cause catarrh of the lids which will produce a loss of the superficial covering of the cornea, with dimness of vision and, if the disease be not checked, loss of the cornea and resulting blindness. In many cases that I have seen the bacillus of influenza has been shown by the microscope.

With regard to the importance of the microscope it is of great diagnostic and prognostic aid. We all know how serious the gonococcal inflammation of the eye is. It may mean death to the eye. Ninety per cent. of the people in blind asylums are there as a result of a gonorrhoeal ophthalmia in infancy.

Some of these cases of conjunctivitis are simply catarrhal inflammations attended by a membranous discharge. The membrane may be very thin, and, indeed, I have seen such cases where the only "bug" found was the influenza bacillus. I think it was three or four years ago that Dr. Gifford, of Omaha, called attention to the fact that the influenza bacillus can be killed by chloride of zinc solution. Therefore, when the influenza bacilli are the cause of the disease, chloride of zinc in solution should be used. But I have been treating my cases with 25% solution of argyrol and without any pain such as was produced with two, three or four grain solutions of chloride of zinc. The application of argyrol is different from any dropping in the eye. The mucous membrane is so swollen that the only way to get at it is to take a match or a toothpick with cotton upon its end and dip it in the solution of argyrol and then sweep from the outer canthus of the eye all the way around to the inner canthus, doing it once an hour. Before one week is past the treatment will be seen to be positive in its effects. Whereas by using chloride of zinc dropped into the eye, the solution will not reach the bacilli which lie below the surface of the mucous membrane.

**Dr. Irwin H. Hance, of Lakewood.**—I should like to give my personal experience in hospitals with the application of cold. We know that heat is of no value in these conditions unless it is applied as hot as the patient can bear it. If we give instructions to the mother to apply cold to the eye by means of ice-cold pledgets of cotton we are sure of much better success than if we direct hot applications to be applied to the eye. With regard to the applications of argyrol, I cannot speak of its use in the eye, but I can speak of its use on the nasal mucous membrane and I can say that it has given me satisfactory results. Practically I have discarded the use of nitrate of silver in the nose and only use argyrol, which can be applied without discomfort in 50% solution. I was interested in hearing that stronger solutions were being used. I think the following plan of treatment should be carefully employed: viz., constant washing out of the eyes, the application of cold and the use of full strength boracic acid solutions, not ten grains to the ounce, which is too weak a solution.

In listening to the paper I was struck by what was said regarding towels being conveyers of the disease. This possibility of the



source of infection should always be looked out for. By this means the infection is readily carried from one child to another. This was certainly so in the Nursery and Child's Hospital in New York where the use of individual towels and clothes checked the progress of conjunctivitis.

**Dr. F. C. Ard, of Plainfield.**—I think it is very important in acute conjunctivitis that the patient be confined in a darkened room and not allowed to use the eyes for some time after the symptoms have subsided. We frequently see cases that are troubled with asthenopia for a long period after the acute symptoms have subsided. In these cases I think it is very important that any refractive error present be carefully corrected. I have found so slight an error as one-quarter of a dioptre of astigmatism present which, when corrected, resulted in a prompt recovery. These slight errors are only found after a careful examination.

**Dr. N. L. Wilson, of Elizabeth.**—Dr. Hance has spoken of argyrol and so has Dr. Chambers, who uses it in a 25% solution. It strikes me that neither of these gentlemen is satisfied to use argyrol in gonorrhoeal infection, i. e., they are skeptical regarding its bacteriocidal action, and the same can be said of boric acid. In my opinion normal salt solution is as efficacious as either of the above solutions in the particular disease under consideration. If an astringent is needed a mild solution of zinc is all that is required.

**Dr. Geo. E. Reading, of Woodbury.**—With regard to the usefulness of the application of cold; how much effect do we get by rubbing small pieces of ice cold material to the eye and not replenishing it as often as necessary? So far as local applications are concerned my habit has been to use solutions of chloride of zinc in a saturated solution of boric acid and this combination has succeeded in my hands admirably.

**Dr. T. R. Chambers, of Jersey City.**—I protest against the use of ice on the eye; although ice may kill germs it will have a serious effect upon the eye-ball. Iced-cloths have great value.

**Dr. Treganowan, of South Amboy.**—Regarding the application of cold to the eye I believe there is no remedy more powerful than either hot or cold applications. I am much opposed to the use of cold applications in ophthalmia neonatorum except under certain conditions. If there is swelling of the eyelids (not oedema) it is sufficient to apply cold applications but not ice. If, on the other hand, oedema be present, cold applications will frequently ruin the eye. As a rule I use warm applications. I should like to cite one case. I was called in consultation to see a child four days old who was a sufferer from ophthalmia neonatorum and I suggested warm applications. A trained nurse was called in who had been accustomed to use cold applications and she persuaded the family physician to apply cold. She made cold applications when oedema was present and in twenty-four hours both corneas were gone. I simply want to insist upon the fact that cold applications are wise, proper and safe when there is swelling of the eyelids, but exceedingly harmful if oedema is

present. Cold applications are never advisable in simple non-inflammatory oedema.

As to the use of argyrol I should take issue with Dr. Chambers in the use of so strong a solution and sweeping the insides of the lids with it, because, although it may be perfectly safe in the hands of a great many men, it would not be safe for all practitioners, a great number of whom would rub off the epithelium and start trouble. I am more in favor of a 2% to 4% solution of protargol, using it every two, four or six hours.

**Dr. Gray of Jersey City.**—It may be presumptuous for me to enter into this discussion from the standpoint of a general surgeon, but surgical principles do not vary much along this line. Regarding external applications I have been thinking of the rationale of them. One speaker says that cold applications are bad, another that hot applications are bad and still another that warm applications are bad. There must be some rationale. The statement was made that ice will kill germs. If it will, the fact has not been recognized by surgeons. Cold cannot be regarded as a germicide but heat certainly is. Warm applications will encourage the growth of germs.

With regard to the use of adrenalin chloride, that is an astringent with an effect upon the capillaries. I have found much satisfaction in its use in the treatment of acute congestive conditions, using it in mild solutions. It lessens the congestion and the pain and, combined with boric acid solution, is very useful.

**Dr. Treganowan, of South Amboy.**—I have treated many cases of catarrhal conjunctivitis by all the methods mentioned, but notwithstanding that, the condition has gone on to corneal ulceration. But in 18 out of 20 cases I find the condition will yield to a simple alterative treatment by mouth or inunction, either the iodide of potash or mercury. There seems to be something lying behind these cases which the alterative treatment reaches.

## ARTIFICIAL FEEDING OF INFANTS DURING THE FIRST YEAR.\*

BY EDWIN E. GRAHAM, M. D.,  
*Professor of Diseases of Children in Jefferson Medical College, Philadelphia.*

It is a well-established fact that the first twelve months of life represent a period in which is found the greatest amount of sickness and the largest number of deaths. Among the factors which are potent in the causation of the diseases and deaths observed during this period, the one which stands out most prominently is improper feeding, especially improper substitute feeding.

In the short time placed at my disposal I will endeavor to consider briefly the main points in the artificial feeding of children

\* Read by invitation before the Camden County Medical Society, December 13, 1904.

during the first year. Cow's milk is, by general consent, the nutrition selected to take the place of human milk; the milk of the goat and ass have no special advantages over cow's milk, except, perhaps, the fact that the goat is not liable to tuberculosis. But the fact that cow's milk is everywhere obtainable and its proper use gives such excellent results, has led to its almost universal use in most countries. The breed of cow is of some importance as it is a well-known fact that the proportion of fat, sugar and proteid differs decidedly in the different breeds. The high-grade Jersey or Guernsey must not be selected, but the commoner breeds, those best able to raise their young, and which are free from much inbreeding, and whose herd milk shows an average of four per cent. fat. One of the best dairy cows is the Holstein.

Having decided that cow's milk is to be our infant's food, our problem is to modify this cow's milk so as to make it resemble as closely as possible, human milk. Table I. gives the composition of cow's and human milk.

	WOMAN'S MILK DIRECTLY FROM THE BREAST.	COW'S MILK AS ORDINARILY RECEIVED, ABOUT 24 HOURS OLD.
Reaction .....	Amphoteric. (More alkaline than acid)	Slightly acid
Water .....	87% to 88%	86% to 87%
Mineral matter .....	0.20%	0.70%
Total solids .....	12% to 13%	14% to 13%
Fats .....	4% (Relatively poor in fatty acid.)	4%
Milk-sugar .....	7%	4.50%
Proteid .....	1.50%	4%
Caseinogen (Konig) .....	0.59%	2.88%
Lactalbumin " .....	1.23%	0.53%
Coagulable proteids	Small proportionally	Large proportionally

A careful study of this table shows that human milk is amphoteric, *i.e.*, more alkaline than acid; cow's milk is slightly acid. The water is almost the same in both. The mineral matter is 5% greater in cow's milk than in human milk. The fat is in the same proportion in both. The proteid is only 1.5% in human, but is 4% in cow's milk. Milk-sugar, 7% in human; 4% in cow's milk.

To render the cow's milk alkaline is very simple; we have only to add lime water. To reduce the 4% proteid is also very simple; we add enough water to reduce it to any desired percentage, for instance, one pint of milk 4% fat, 4% proteid, to which is added one pint of water gives us 2% fat, 2% proteid. Milk-sugar added to cow's milk in certain definite proportions, renders cow's milk of the same sweetness as human milk. Cream, because of its richness in fat, added

to our mixture of milk, lime water and sugar of milk restores the percentage of fat reduced by the addition of water. The problem appears at first sight, a very simple one. Wherein lies the difficulty? Why is it that so many children fed upon cream mixtures do badly, and that children so fed have to be watched so carefully? Why is it that so many children artificially fed are rachitic, scorbutic, badly nourished and have gastro-intestinal disturbances? The answers to those questions are the following: Mother's milk is sterile; cow's milk always contains bacteria. The proteid of cow's milk is much more difficult to digest than is the proteid of human milk. The chemical composition of the fat differs in cow's and human milk. Bottles and nipples used in feeding are often not sterile. Children are often fed at improper intervals and in improper quantities and are more apt to be overfed than underfed.

Too hard and fast lines are often followed. The child must have its food adapted to two main considerations, the child's digestion first, and its gain in weight second. A food may be digested, but not be sufficiently nutritious. If the child has indigestion the normal quantity and quality suited to its age must be reduced below the normal, often far below the normal. It is not what we give the child in these cases that does good. It is what the child digests.

The proteid of cow's milk is the first and foremost difficulty. Its amount (4%), and the difference in its chemical composition from human proteid; the cow proteid being composed of caseinogen 2.88%; whey proteid .53%. Human proteid 1.50% is composed of caseinogen .59%; whey proteid 1.23%. The difficulty lies in the inability of digesting this cow proteid by the young infant, especially the caseinogen.

During the first few months of life, the amount of proteid should not be greater than 1%. Children who receive an insufficient amount of proteid are apt to be pale, have cold hands and feet, and their flesh is, as a rule, soft and flabby.

The three main ingredients of proteid are caseinogen, lactalbumin and lactoglobulin; of these, the last is of the least importance. The small, hard, dry stools so common in the first few months of infant life are mainly due to the small amount of proteid given. Too high proteid percentage often shows itself by colic and curds in the stools.

The caseinogen is the most difficult part of the proteid; in fact the worst ingre-



dient of cow's milk, for the infant to digest. It is precipitated by acids, and by the gastric juice, and forms the curds, so difficult for the infant's digestive organs to break up and assimilate. The other proteid ingredients, lactalbumin and lactoglobulin are quite easy to digest, and are called the whey proteids. Now, it is a very easy matter to give an infant whey proteid. By what is called the "split proteid," it is possible to give a child a milk in which the caseinogen is only .25% and the whey proteid .75%. This is, however, only possible when 1% of proteid or less is ordered. This is shown in the following prescription:

- Fat .....3.50%
- Sugar .....6.50%
- Proteids (total) .....1.00
- (a) Lactalbumin (whey proteid) .....0.75%
- (b) Caseinogen .....0.25%
- Number of feedings.....8
- Amount at each feeding.....3 oz.
- Infant's age .....9 wks.
- Infant's weight .....9¼ lbs.
- Alkalinity .....5%
- Heat at .....155° F.

It is quite possible by the use of whey to make the proteids in our cow's milk mixture approach closely the proteids in human milk, and by the use of whey cream mixtures to give an infant the amount of fat required and only the proteid easiest for it to digest. This is of the greatest advantage in treating those cases of infants only a few months old, and, indeed, often of great benefit in infants of nine to twelve months of age, whose proteid digestion is weak. Whey mixture should not be heated above 158° F., else the whey proteid is coagulated.

Possible percentages of fat and proteid with creams of 20%, 16% and 12% fat, and whey containing fat 0.32%.

	WHEY, Q. S.	FAT	PROTEID
<b>CREAM, 20%</b>			
0.70 oz. .... :	20 oz.	1%	0.94
1.71 oz. .... :	20 oz.	2%	1.06
2.72 oz. .... :	20 oz.	3%	1.18
3.74 oz. .... :	20 oz.	4%	1.30
<b>CREAM, 16%</b>			
0.87 oz. .... :	20 oz.	1%	0.98
2.14 oz. .... :	20 oz.	2%	1.15
3.42 oz. .... :	20 oz.	3%	1.32
4.69 oz. .... :	20 oz.	4%	1.50
<b>CREAM, 12%</b>			
1.16 oz. .... :	20 oz.	1%	1.03
2.88 oz. .... :	20 oz.	2%	1.28
4.59 oz. .... :	20 oz.	3%	1.53
6.30 oz. .... :	20 oz.	4%	1.79

The fat in the infant's food is of importance as it tends to prevent nitrogenous waste, and is of great aid in the production of animal heat; it also plays a rôle in the growth of bone and nervous tissues. The infant requires, relatively, a larger proportion of fat than does the older child or adult, and if a sub-normal amount is given, the infant is apt to become rachitic. The amount of fatty acids is less in woman's milk than in cow's. The fat in human milk consists largely of palmatin, stearin and olein. If the percentage of fat in modified milk is too high, it may produce vomiting of thick, sour milk; or diarrhoea, the stools being thin, green and sour smelling.

The sugar in cow's milk and human milk is the same; lactose. Sugar of milk or lactose is to be preferred to cane sugar as lactose is the sugar always found in the milk of animals suckling their young, and is undoubtedly, therefore, the form of sugar intended by nature for all mammals. The infant has little or no difficulty in digesting milk sugar. Sugar plays an important rôle in the production of animal heat. If more than the usual percentage of sugar is given, the child often shows a rapid increase in weight. The flesh is, however, apt to be soft, the child anemic, perhaps rachitic and dentition is often delayed.

The question as to the addition of cereals to cow's milk is one of decided importance. Starch is not found in mother's milk, and food containing starch should not be given to the child before the eighth month, owing to the weak amylolytic function of the infant. It does not seem right to tax any function of the body before it is fairly well developed. Why give starch then, before the age has arrived at which it can be properly converted into sugar? Its use has been urged on the ground that it assists in breaking up the curds of cow's milk. It, undoubtedly, will make the curds of cow's milk smaller or finer, but why employ this means of breaking up our caseinogen curds, which are the ones most at fault, when by the use of whey cream mixtures, we can accomplish our object better, and still not be compelled to use starch, which the child ought not, in view of its weak amylolytic function, to receive before it is eight months old?

After the eighth month of life, my experience leads me to believe that children do better if a small amount of starch, not more than 1%, is added to its food, and the addition of this starch makes it possible to in-

crease the amount of proteid given. This is conveniently given in the form of oat-jelly, wheat or barley water. Feeding from a laboratory enables one to give the exact per cent. of cereal desired, which is a matter of some importance, as it makes it possible to vary the exact amount of cereal in the same manner as we vary the per cent. of fat, proteid and sugar.

Heating the milk is so universal a practice that the effects of different degrees of heat upon milk is a question of great interest. Pasteurization of milk, or the raising of the milk to a temperature of 155° F. for thirty-five minutes destroys most pathogenic organisms; it does not destroy all spores. Lactalbumin, the most important of the whey proteids, is coagulated at 161° F. This temperature produces no change in the taste or appearance of the milk, and destroys the tubercle bacillus and the bacilli of diphtheria and typhoid fever and all the bacteria in milk except about 2%.

Sterilization, or raising the milk to 212° F. destroys all fully developed bacteria, but produces certain changes in the milk, the most important of which are the changes in the fat globules and the coagulation of a certain amount of the lactalbumin and lactoglobulin, as well as making a distinct change in the taste and smell of the milk.

Pasteurization has largely replaced sterilization, having practically all the advantages of sterilization and none of its drawbacks. Milk should always be rapidly cooled after Pasteurization.

Why is it necessary to heat milk? When it is possible to make the community at large appreciate the importance of giving infants a milk of a definite percentage of fat, sugar and proteid, and containing no more than 2,500 bacteria to the c. c., free from all foreign matter and free from all pathogenic bacteria, the necessity for heating milk will be largely done away with. If such milk were always kept cold and properly transported, we would soon have aseptic milk, and unheated milk.

Peptonized milk is of advantage in children suffering with indigestion, and is of especial service in infants in whom the proteid digestion is weak. It is a valuable adjunct to treatment, in both acute and chronic cases, often enabling us to give an amount of food in excess of that possible if peptonization were not employed, a fact of considerable consequence in cases of mal-nutrition. The error is sometimes made of keeping the child too long on peptonized

milk. The predigesting of milk, either partially or completely should not, as a rule, be continued for more than six or eight weeks, as it must be remembered that it is unwise to remove from the organs of digestion for too long a time, the performing of their normal function. Modified milk mixtures may be peptonized in bulk or by adding the proper portion of the contents of a peptonizing tube to each bottle just before heating and feeding. My preference is for this latter method.

### Laboratory Feeding.

The object of the milk laboratory is to supply a milk of definite percentages of fat, sugar and proteid, and creams of a definite percentage of fat. Both milk and cream are practically free from all foreign matter, as dirt, and must contain not more than a certain number of bacteria per c. c. Infection by pathogenic organisms is highly unlikely with this milk. In the laboratory, the separator removes a large proportion of any dirt from the milk and cream by centrifugal force.

Prescriptions are sent to this laboratory calling for certain percentages of fat, sugar, proteid and alkalinity and specifying the number of feedings, and the amount of each feeding, and the heating at a certain temperature for a certain number of minutes. To fill these prescriptions, the clerk has creams of known fat percentages, fat free milk, sterile water, lime water, milk-sugar, whey and gruels of oat, wheat and barley. Each prescription is delivered in a set of bottles in a separate box or basket, at the patient's house at a regular hour each day. All bottles and baskets are sterilized immediately upon being received back in the laboratory.

It is becoming more common than formerly, to use unheated milk from the laboratories, and when the patient lives near the laboratory farm, and the milk consequently reaches the consumer with very little transportation, and has *always* been kept cool, unheated milk may be used. However, I firmly believe that it is much safer to Pasteurize the milk used by children under one year of age, and this Pasteurization is, in the hot summer months, a necessity. The great advantage that a milk laboratory offers is this: it enables a physician to vary within very wide degrees, the percentages of all the ingredients which go to make up a milk modification for either a well or a sick infant, and the knowledge that this is



done by one especially trained for this work, insures its accuracy.

**Home Modification of Milk.**

In order that the modification of milk at home may, as nearly as possible, approach the exactness of the laboratory, it is necessary that the patient be supplied with milk and cream of definite percentages. This milk or cream may be procured from a laboratory in Philadelphia, which is supplied from those dairies recommended by the Milk Commission of the Philadelphia Pediatric Society. All bottles and nipples should be carefully sterilized. The arms and forearms of the person selected as modifier, should be thoroughly cleansed and she should have the following for her modifications: milk and cream of known percentages, sterile water, lime water, milk-sugar, cream dipper, milk-sugar measures holding  $3\frac{3}{8}$  drams, eight ounce graduate, large spoon sterilized. Gravity cream is often used, and can be obtained as follows: if the milk is allowed to stand in the ordinary quart jar for eight hours, the top 4 ounces represent a 20% fat cream, the top 6 ounces a 16% fat cream, and the top 8 ounces, a 12% fat cream. Gravity cream contains more bacteria than does separator cream, but the centrifuge, it is claimed by some, does injury to the emulsion of the fat. Personally, I have obtained equally good results from both creams.

It must be remembered that accuracy is the keynote to a home modification, and it is best that all directions to the mother or nurse be carefully written out in ounces of cream, milk, water, lime-water, and measures of sugar of milk. The physician should learn to think in percentages, and having decided upon the percentages to be used, being guided by the child's age, development, weight, digestion, and if indigestion be present, being influenced by the fact whether it is the fat or proteid which is the cause of the indigestion. After taking these factors into consideration, he should decide upon the exact per cent. of fat, sugar and proteid to be used and by reference to his pocket memoranda, transfer this into ounces for the benefit of the mother or nurse.

A convenient and easily understood form of home modification is as follows: from a quart of milk, which has been bottled eight hours, remove the top 8 ounces; count this as 12% fat cream. Count as fat free milk, the lowest 8 ounces of the quart. Using this 12% fat cream and the fat free milk, the fol-

lowing percentages can be obtained, covering fairly well the different combinations of fat, proteid and sugar desired. One quart of milk is enough by this method until the baby is about three months old.

FIRST WEEK.

Fat .....	2.00
Sugar .....	5.00
Proteids .....	0.75

12% Cream. Fat Free Milk.

Cream .....	$3\frac{1}{4}$ ounces
Milk .....	$1\frac{1}{2}$ ounces
Lime Water .....	I ounce
Water, q. s. ....	.20 ounces
Milk-sugar .....	2 measures

SECOND WEEK.

Fat .....	2.50
Sugar .....	6.00
Proteid .....	1.00
Cream .....	$4\frac{1}{4}$ ounces
Milk .....	$1\frac{3}{4}$ ounces
Lime Water .....	I ounce
Water, q. s. ....	.20 ounces
Milk-sugar .....	$2\frac{1}{2}$ measures

THIRD WEEK.

Fat .....	3.00
Sugar .....	6.00
Proteids .....	1.00
Cream .....	5 ounces
Milk .....	I ounce
Lime Water .....	I ounce
Water, q. s. ....	.20 ounces
Milk-sugar .....	$2\frac{1}{4}$ measures

FOUR TO SIX WEEKS.

Fat .....	3.50
Sugar .....	6.50
Proteids .....	1.00
Cream .....	$5\frac{3}{4}$ ounces
Milk .....	0 ounces
Lime Water .....	I ounce
Water, q. s. ....	.20 ounces
Milk-sugar .....	$2\frac{1}{2}$ measures

SIX TO TWELVE WEEKS.

Fat .....	3.50
Sugar .....	6.50
Proteids .....	1.50
Cream .....	$5\frac{3}{4}$ ounces
Milk .....	$3\frac{3}{4}$ ounces
Lime Water .....	I ounce
Water, q. s. ....	.20 ounces
Milk-sugar .....	$2\frac{1}{4}$ measures

THREE TO FOUR MONTHS.

Fat .....	4.00
Sugar .....	7.00
Proteids .....	1.50

Cream .....6¾ ounces  
 Milk .....2¼ ounces  
 Lime Water .....I ounce  
 Water, q. s.....20 ounces  
 Milk-sugar .....2½ measures

FOUR TO EIGHT MONTHS.

Fat .....4.00  
 Sugar .....7.00  
 Proteids .....2.00  
 Cream .....6¾ ounces  
 Milk .....4¾ ounces  
 Lime Water .....I ounce  
 Water, q. s.....20 ounces  
 Milk-sugar .....2¼ measures

EIGHT TO NINE MONTHS.

Fat .....4.00  
 Sugar .....7.00  
 Proteids .....2.50  
 Cream .....6¾ ounces  
 Milk .....7½ ounces  
 Lime Water .....I ounce  
 Water, q. s.....20 ounces  
 Milk-sugar .....2 measures

NINE TO TEN MONTHS.

Fat .....4.00  
 Sugar .....7.00

Proteids .....3.00  
 Cream .....6¾ ounces  
 Milk .....10½ ounces  
 Lime Water .....I ounce  
 Water, q. s.....20 ounces  
 Milk-sugar .....1½ measures

TEN TO TWELVE MONTHS.

Fat .....4.00  
 Sugar .....5.00  
 Proteids .....3.50  
 Cream .....6¾ ounces  
 Milk .....11¾ ounces  
 Lime Water .....I ounce  
 Water, q. s.....20 ounces  
 Milk-sugar .....½ measure

AFTER TWELVE MONTHS.

Unmodified cow's milk.

In order to obtain certain low proteid percentages with certain fat percentages, it is necessary, instead of removing the top eight ounces and using a 12% fat cream, to remove the top six ounces for a 16% fat cream, or the top four ounces for a 20% fat cream. The following table designed by Dr. Maynard Ladd, makes this a calculation of a few moments only.

No.	20-oz. mixtures. Percentage of				Ounces of Cream.				Ounces fat-free milk used with creams of				Ounces lime water.	Milk-sugar, measures.
	Fat.	Sugar.	Prot'd.	Alk.	10%	12%	16%	20%	10%	12%	16%	20%		
1	1.50	4.50	0.25	5				1½					1	2
2	1.50	4.50	0.50	5	3	2½	2	1½		½	1	1½	1	2½
3	2.00	5.00	0.25	5				2					1	2½
4	2.00	5.00	0.50	5		3¼	2½	2			½	1	1	2½
5	2.00	5.00	0.75	5	4	3¼	2½	2	¾	1½	2¼	2¼	1	2½
6	2.00	5.50	1.00	5	4	3¼	2½	2	1¾	2½	3¼	3¼	1	2½
7	2.50	5.00	0.50	5				2½				¾	1	2½
8	2.50	5.50	0.75	5		4¾	3¼	2½		½	1¾	2	1	2½
9	2.50	6.00	1.00	5	5	4¾	3¼	2½	1	1¾	2¾	3½	1	2½
10	3.00	6.00	0.50	5			3¾	3				¾	1	2½
11	3.00	6.00	0.75	5		5	3¾	3			1¾	2	1	2½
12	3.00	6.00	1.00	5		5	3¾	3		1	2¼	3	1	2½
13	3.00	6.00	1.25	5	6	5	3¾	3	1¼	2¼	3½	4¼	1	2½
14	3.00	6.50	1.50	5	6	5	3¾	3	2½	3½	4¾	5½	1	2½
15	3.00	6.50	2.00	5	6	5	3¾	3	5½	6½	7¾	8½	1	2
16	3.50	6.00	0.50	5				3½					1	2½
17	3.50	6.00	0.75	5			4½	3½					1	2½
18	3.50	6.50	1.00	5		5¾	4½	3½			1¾	2¼	1	2½
19	3.50	6.50	1.25	5	7	5¾	4½	3½		½	3	4	1	2½
20	3.51	6.50	1.50	5	7	5¾	4½	3½	2	3¼	4½	5½	1	2½
21	4.00	6.00	0.60	5				4					1	2½
22	4.00	6.00	0.75	5			5	4					1	2½
23	4.00	7.00	1.00	5			5	4			1	2	1	2½
24	4.00	7.00	1.25	5		6¾	5	4		¾	2½	3½	1	2½
25	4.00	7.00	1.50	5	8	6¾	5	4	1	2½	4	5	1	2½
26	4.00	7.00	2.00	5	8	6¾	5	4	3½	4¾	6½	7½	1	2½
27	4.00	7.00	2.50	5	8	6¾	5	4	6¾	7½	9¾	10¾	1	2½
28	4.00	7.00	3.00	5	8	6¾	5	4	9¼	10½	12¾	13¾	1	1½
29	4.00	6.00	3.00	5	8	6¾	5	4	9¼	10½	12¾	13¾	1	1
30	4.00	5.50	3.00	5	8	6¾	5	4	9¼	10½	12¾	13¾	1	¾

Dr. Frederick C. Jones, of Basking Ridge, was the defendant in a civil suit before the Somerset Circuit Court for the alleged poisoning a year ago of the 11-year-old son of John N. Sharp, of Bernardsville.

It is alleged that Dr. Jones left morphine tablets for the child instead of some mild med-

icine and that the mother administered them according to the doctor's directions, and that the child died after having taken four of the tablets.

At the conclusion of the trial the jury disagreed, and the matter will probably be dropped.



## FEEDING AFTER THE FIRST YEAR.\*

BY J. P. CROZIER GRIFFITH, M. D.,  
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 University of Pennsylvania.*

The problems of feeding after the age of one year, though not as a rule so perplexing as before this period, are still many and varied. We are, perhaps, prone to ignore this fact and to give less attention to the matter than it deserves, leaving the question of diet entirely in the mother's hands. Yet it too often happens that through her errors, or our own, the weaned child—to paraphrase the words of the prophet Isaiah—is left playing over the cockatrice's den, and is in just as great danger as the sucking child that is putting his hand on the hole of the asp. The millennium which the prophet was describing is far from having come.

These thoughts bring us naturally to the first step towards the feeding of the second year, viz: weaning. Circumstances often arise which necessitate the taking of the child from the breast, and the placing of it upon the bottle early in the first year of life. This is not what we have in mind by the term "weaning," but rather the accustoming of an infant, whether on the breast, or on a bottle substitute, to *another kind* of diet. I shall speak as though the child was still on the breast, and in all that I shall say about diet, it is to be remembered that *healthy* children alone are under consideration.

Weaning takes place normally at from the age of 10 to 12 months. It should, when possible, always be accomplished gradually. The refusal of an infant to take the bottle after *repeated* efforts have been made to feed in this way, may necessitate the total withdrawal of the breast, in order that hunger may compel the child to adapt itself to the new method. The trouble will not arise if the baby has been taught early in life to suck water daily from a bottle. At first but one bottle of milk is to be given daily. The strength of the mixture is an important matter, inasmuch as a new substance, cow's milk, is to be employed. We should always give at first a mixture decidedly weaker than normal human milk. In a day or two this may be increased in strength, and the process continued until a food as strong as, or, in the matter of the proteids, somewhat

stronger than human milk can be taken and well digested. This point having been gained, two bottles are given daily in place of an equal number of breast feedings, and so on until the breast milk is entirely replaced. This process has lasted in all about two or three weeks. The child should be weighed systematically twice a week during the weaning, in order that no undiscovered loss of weight takes place. It is generally the case that infants at this age require a proteid percentage decidedly greater than the 1 to 1.5 per cent. present in human milk. This percentage should, therefore, have been gradually increased as the breast milk was withdrawn, in order that a gain in weight of three or four ounces a week may have been continued.

The infant being now entirely on bottle food, the sugar is gradually decreased in amount, and the proteid continually increased until at the age of one year a food is given which contains about 4 per cent. of fat, 4½ to 5 per cent. of sugar, and about 3 per cent. of proteids; that is to say, the child is taking milk nearly undiluted—*not* Alderny—to which is added little if any sugar, and possibly a very small amount of cream. In many cases there is no necessity of diluting the milk at all. This depends upon the digestive power of the child. It is important, however, to remember that not every child can take whole milk at the age of a year.

Well before the age of one year the infant is entirely capable of digesting starch. Indeed, even in the early months there is some amylolytic power. Healthy infants on the mother's breast do not, however, need starch, and this is likewise true of those on the bottle. It is beyond the province of these remarks to speak of the circumstances under which starch should be given earlier in life, but when the age of ten months has been reached, and the weaning process has been commenced, the question as to the propriety of adding some amylaceous preparation to the bottle milk naturally arises. My belief is that it is well to make this addition if for no other reason than that of accustoming the child to the food which will soon form one of the staples of its diet. The addition, however, should not be made, as a rule, until the child has become well used to its cow's milk mixture, and has given up the breast entirely. As the food by this time contains but a small amount of water added as a diluent, a concentrated amylaceous substance should be used, such as barley jelly or arrow root

\* Read before the Camden County Medical Society, December 13th, 1904.

jelly. The proportion of the two rounded tablespoonfuls of barley flour or arrow root to a pint of water cooked in a double boiler for ten or fifteen minutes makes the proper strength. This may be added to the food in the proportion first of one, and later of several teaspoonfuls to each bottle. The addition should be made, however, while the cereal substance is still hot, as, should it jelly, solution becomes tedious and difficult, unless the bottle food is boiled.

The number of feedings during this period have been reduced from one every three hours to one every three and one-half or four hours, depending upon the requirements and habits of the child. The amount of nourishment should be from eight to ten ounces at a feeding.

### Diet in the Second Year.

We are now ready to consider briefly the proper diet in the second year of life. By the age of one year the child may well be taught to eat some form of porridge from a spoon. This may be given for its dinner, in addition to milk from a cup. If the bottle is still employed, the porridge should be given first, since no child will stop its bottle food until it is satisfied or the vessel is emptied, by which time, hunger being appeased, the porridge may be refused. The porridge may consist of such foods as hominy grits, arrow root, farina, wheaten grits, wheatena, and other wheat preparations. Whatever form is employed, it should be thoroughly cooked. Oatmeal should not, in my opinion, be among the first porridges given. Although very nutritious, it is not well borne at this early age. All these foods should be seasoned with salt in the cooking. There are numbers of breakfast foods in the market which are extremely serviceable at this time of life. Most of them are good, and it would be invidious to enumerate some and not others. Bread and milk and milk toast may take the place of porridge at times. We have also on the market the various malted foods now so popular. There is no objection to these, unless given for too long a period. We should not, however, give invariably such predigested foods, lest the development of the child's own digestive power be interfered with by lack of demand made upon it.

The breakfast food may have milk poured over it, and be sweetened slightly with cane sugar if necessary.

After the child has grown well accustomed to its porridge meal at midday, this may be shifted to breakfast, and a dinner

given of boiled rice, bread or macaroni moistened with beef juice, or with beef gravy free from fat. Always a glass of milk is given in addition. The child has by this time reached the age of thirteen or fourteen months. Now, or a little later, the giving of eggs may be tried in many instances, remembering, however, that many children tolerate eggs very badly. Milk from the bottle or glass is still given in the middle of the morning before the nap, and the supper consists of milk or a bowl of bread and milk. The ten o'clock bottle may still be given, of not, but only if the child awakens for it.

Very soon the addition of some plain dessert is in order, such as rice pudding without raisins, tapioca, sago, junket, etc. The question arises about the giving of fruit. Even in the first year, the administration of orange juice is often of benefit, and after this year has passed a small quantity of cooked fruit is useful, one of the best sorts being apple.

The following table gives a dietary suitable for the age of from one year to eighteen months, always remembering that the infant does not begin with the full list, but grows accustomed to it gradually.

Breakfast (6 to 7 A. M.)—(1.) A glass of milk with stale bread broken in it. (2.)—Oatmeal, arrow root, wheaten grits, hominy grits, etc., or one of the numerous good breakfast foods on the market, made into a porridge and well cooked, and with the milk mixture in use poured over it. (3.)—A soft boiled or poached egg with bread broken in it and a glass of milk.

Second Meal. (10 A. M.)—A glass of milk.

Dinner (1.30 to 2 P. M.)—(1.)—Bread moistened with dish-gravy (no fat), beef tea or beef juice, a glass of milk. (2.)—Rice or grits moistened in the same way; a glass of milk. (3.)—A soft-boiled egg and stale bread thinly buttered; a glass of milk. Rice, sago, or tapioca pudding, or junket, in small quantities as dessert with any of these diets.

Fourth Meal (5 P. M.)—A glass of bread and milk.

Fifth Meal (9 to 10 P. M.)—A glass of milk.

When the infant has reached the age of eighteen months the diet may be extended somewhat. Finely minced meat, mutton or chicken may now be given for dinner, and mashed potato may be added to the amylicious foods. I have been for years impressed with the fact that potato starch is



not one of the most digestible, and that it is better not to give it until this period. Even now many children do not digest it well. The following is a diet list suitable for this period:

Breakfast (7 A. M.)—(1.)—A glass of milk with a slice of bread and butter or a soda, graham, oatmeal, or similar unsweetened biscuit. (2.)—A soft-boiled egg with bread and butter and a glass of milk. (3.)—Porridge as described in the previous list.

Second Meal (10 A. M.)—(1.)—Bread broken in milk. (2.)—Bread and butter or a soda or other biscuit with a glass of milk.

Dinner (2 P. M.)—(1.)—Boiled rice or a baked potato mashed and moistened with dish-gravy or beef juice; a glass of milk. (2.)—Mutton or chicken broth with barley or rice in it; some bread and butter, and some sago or rice pudding made with milk. (3.)—A small portion of minced white meat of chicken, or turkey, or minced rare roast beef, beefsteak, lamb, mutton, or fish; bread and butter; a glass of milk.

Fourth Meal (5 P. M.)—(1.)—Bread and milk. (2.)—Bread and butter and a glass of milk.

By the age of two years the method of feeding is not altered very greatly. The following list shows the diet which may well be given from two years on:

Breakfast (7 to 8 A. M.)—(1.)—A small portion of beefsteak, with oatmeal, hominy grits, wheaten grits, corn meal, or other cereal porridge with plenty of milk. (2.)—A soft-boiled egg, bread and butter and a glass of milk.

Second Meal (11 A. M.)—(1.)—A glass of milk with bread and butter or with a soda or other biscuit. (2.)—Bread and milk. (3.)—Chicken or mutton broth.

Dinner (2 P. M.)—Roasted fowl, mutton or beef cut fine; mashed baked potato with butter or dish-gravy on it; bread and butter. As dessert, tapioca, sago, or rice pudding, junket, or some of the fruits mentioned.

Supper (6 P. M.)—(1.)—Bread and butter. (2.)—Milk with soda or similar biscuit or with bread and butter.

The three later meals, it will be observed, remain much as before. A difference of opinion exists among physicians as to the giving of meat at breakfast time. In my opinion, the healthy child can well have meat at times for breakfast as well as for dinner, though not necessarily every day. Possibly a soft-boiled egg on one day, and a little beefsteak or chop on another may alternate for the sake of varying the diet.

Many children cannot tolerate meat so frequently, as shown by high colored urine, the production of eczema and other evidences of a too great supply of highly nitrogenized food. For these the diet must be suitably altered. But in my experience by far the greatest cause of indigestion in children from the age of two years onward, is the giving of too large a quantity of starchy food. The restless sleep, distended abdomen, irregular appetite and bowels, and other well-known evidences of chronic gastrointestinal catarrh are due, I am sure, to the giving of an excessive amount of starch or sugar.

After the age of three years the diet approaches more closely to that suitable for adults, care being taken only to avoid certain articles of food as improper, and to try others with caution. Idiosyncrasies, of course, arise and many a child cannot tolerate what the normal child can be expected to take without difficulty. The following list is a guide to the foods which may or may not be given at this age.

#### Foods Permitted.

Meats.—Broiled beefsteak, lamb chops, and chicken; broiled liver; roasted or boiled beef, mutton, lamb, chicken, and turkey; broiled or boiled fish; raw or stewed oysters.

Eggs.—Soft-boiled, poached, scrambled, omelette.

Cereals.—Light, and not too fresh wheaten and graham bread, toast, zwieback; plain unsweetened biscuit, as oatmeal, graham, soda, water, etc.; hominy grits, wheaten grits, corn meal, barley, rice, oatmeal, macaroni, etc.

Soups.—Plain soup and broth of nearly any kind.

Vegetables.—White potatoes, boiled onions, spinach, peas, asparagus, except the hard parts, string and other beans, salsify, lettuce, stewed celery, young beets, arrow root, tapioca, sago, etc.

Fruits.—Nearly all, if stewed and sweetened; of raw fruits, peaches are, perhaps, the best; pears, well ripened and fresh raspberries, strawberries, blackberries; grapes, without the skin and seeds; oranges.

Desserts.—Light puddings, as rice pudding without raisins, bread pudding, etc., plain custards, wine jelly, ice cream, junket.

#### Foods to be Taken with Considerable Caution.

Kidney, muffins, hot rolls, sweet potatoes, baked beans, squash, turnips, parsnips, carrots, egg-plant, stewed tomatoes, green corn,

cherries, plums, apples, huckleberries, gooseberries, currants.

### Foods to be Avoided.

Fried food of any kind; griddle-cakes; pork; sausage; highly seasoned food; pastry; all heavy, doughy, or very sweet puddings; unripe, sour or wilted fruit; bananas, pineapples, cucumbers, raw celery, raw tomatoes, cabbage, cauliflower, nuts, candies, preserved fruits, jams, tea, coffee, alcoholic beverages.

There are a few points regarding the diet during early life, after the age of one year, to which I wish to refer separately, and more particularly. First, as to the continued use of milk. It is important that this remain the chief article of diet throughout early childhood. This is easily managed, if the mother uses proper discretion in the matter, and does not allow the child so to fill itself with other things that milk is refused. Children who have learned not to take milk are exceedingly difficult to feed when sickness arises.

Next, as to the giving of broths. Their employment enables us to make a serviceable variation in the food given. It must be remembered, however, that the nutriment obtained from them depends almost, if not entirely upon the cereal addition with which they are thickened. Where the nutrition of the child is not quite what it should be, these broths may very well be supplanted entirely by stronger nourishment. Then, too, broths and soups are quite "filling," as the phrase goes, and I have known somewhat older children, whose dinner commenced with soup, eat this and refused nearly all the remainder of the meal. In such cases, no soup should be allowed.

Another important matter is the guarding against a too great caution on the part of the mother. It is true that probably the majority of mothers show too little caution, and are anxious to try the children with new foods, erring on the side of giving them a "taste of table food," and taking an increased pride in each new article that the child attempts to eat. This is a fault which we all recognize, and are ready to combat. Yet it not seldom happens that the careful mother hesitates too long in passing from the food of the first to that of the second year. I am repeatedly seeing cases of this nature. On my return from a long summer vacation, I was for a time kept busy with infants who had fallen behind in weight, strength and general health because the mothers, conscious only that the digestion

had been good, had feared to make any addition to the diet.

It is of frequent observation that many children after the age of a year are fed far too frequently. The mother, anxious to advance the child's growth in every possible way believes she will accomplish it in this manner. Generally the reverse results. It needs often a great deal of careful planning by the physician, with rearrangement of the child's whole method of life, to correct this fault. Rules must vary with the individual case, but in general the frequency of feeding, as I have given it in the table read you, will produce the best result. As to the exact hour for meals, two important factors are to be considered. First, the habits of the child, *i.e.*, the hour when it wakes, the time it goes to bed, the hour of the morning nap, etc. Second, the general life of the household. No healthy child should dominate absolutely the whole family life, and the hours for its meals must often be made to accord with theirs. This is true only, of course, within certain limits, the health of the child not being permitted to be injured in any way.

The relation of the advancement of dentition to the nature of the food is another matter of which I wish to say a word or two. Ordinarily, we are in the habit of assuming the existence of such a relationship, and of acting upon it. Thus, meat is not usually given until the age of about 18 months or more, at which time the child has sufficient teeth to chew it well. Yet consideration will convince us that no child of this age really masticates well, and the food, no matter what it may be, must be prepared with this fact in view. It may readily happen that a child, through rickets or other cause, has not acquired the teeth normal for its age, and yet that it might particularly need a stronger and more stimulating diet. In my opinion it is the *age* of the child, its needs, and its development in other respects which are to be considered as the criterion in determining the diet, rather than the number of teeth which have erupted.

There are one or two other matters to which I wish to refer, and that with the greatest brevity. First, that no candies, cakes and other such articles should be given. This applies to the whole of infancy and early childhood. In fact, no food whatever should be allowed between meals. Generally the asking for such by the child is only a matter of habit. Should there clearly be real hunger, a small glass of milk may be given



at times, but even this is to be discouraged as a custom. The second matter is that, during the prevalence of very hot weather the diet in infancy and early childhood should be reduced greatly in variety, and even in amount. The child of two years had better be given temporarily the diet of a child of one. Illness may often be avoided by following this plan.

### INFANT FEEDING.\*

BY ALEXANDER McALISTER, M. D.,  
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This subject was selected with a view to its perennial importance rather than its freshness. If no subject is more frequently discussed in medical circles than this, it is because none is more worthy of such large attention. Were it necessary to offer an apology for selecting so old a theme a mere reference to several problems as yet unsolved and the relative failure of much substitute feeding would surely suffice.

Great progress in infant feeding has been made in recent years and American physicians are receiving commendation from the outside world for systematizing the subject and placing it upon the basis of a science and an art.

The highest state of development has been reached in the larger cities where special milk laboratories and laboratory methods are utilized with commendable skill and precision. Only several cities, however, are as yet provided with such laboratories, and in these cities the physicians who have mastered the intricate scientific rationale of milk laboratories sufficiently to enable them to practice the art to a nicety must be a very small part of the entire number.

Beyond the cities so favored and in the practices of all physicians, not in a position to avail themselves of laboratory methods, the demand is for methods and plans which are less theoretical and technical and which can be employed in the average home with ease and accuracy.

Instances in which cow's milk is not the best substitute for mother's milk, provided the former can be properly modified, must be few and far apart, if they occur at all. In the majority of cases simple home modification answers every purpose of the milk laboratory, provided the milk has been carefully selected and properly handled.

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There appears no valid reason why every hand fed infant in our rural districts and villages should not be provided with the best of fresh cow's milk. With two milkings per day and every facility for cooling and refrigeration no milk need be used after it is from fifteen to thirty hours old. Spring houses and supplies of ice for preserving milk are generally accessible during the heated season.

In effect the same remark applies to all towns and the smaller cities. The systemization and increased speed of steam car service and the extension of trolley lines has already brought many thousands of homes into great proximity, relatively speaking, to the dairies. Conditions in this respect are constantly improving. In very many cities there is no longer any reason why milk should not be distributed among the consumers within a few hours after the dairy has deprived it of its animal heat.

The first consideration in substitute feeding is not sterile milk, but undeteriorated whole milk—cow's milk which retains as large a percentage as possible of its value when drawn from the animal. This is obtained by making the interval between milking and putting the milk into the nursing bottle as short as possible. The shorter this interval, all else being equal, the better the milk.

This question of interval needs constant emphasis. Many facilities for improvement along this line are not now utilized to their fullest extent. Why should not milk be handled more frequently as we handle the best grades of butter, namely iced and shipped by the most rapid express service to the retailer and sold to the consumer from well iced refrigerators? When physicians and health officers demand it such methods will be more frequently employed.

Given milk that has been drawn with proper attention to cleanliness of udder, hands and pail, the next step is to remove the animal heat by constant stirring. This done, the milk should be put into clean bottles immediately, carefully sealed and placed on ice. If kept upon ice and used during the first twenty-four hours after drawing the milk will be all that can be expected.

Bottling has many advantages in the handling of milk, but as at present generally practiced, the milkman derives the largest share of the benefit. Bottled milk will bear longer distances in transportation and more leisurely handling than milk in

bulk. Of these facts dealers take advantage, and it is not uncommon for them to serve families with milk that is upwards of a week old. Such milk sours quickly when unsealed and is utterly unfit for infant food. Pasteurization or sterilization will not improve it. By no process of modification that could be employed in the home or in a milk laboratory could such milk be rendered in any degree fit for infant food.

Milk may be sweet, the sole criterion of good milk in many homes, yet, because of age, staleness, and the enormous bacterial content per cubic centimeter be much worse than worthless—positively harmful. It will not bear handling. When warmth is applied instantly acid fermentation takes place. Mothers have no safeguard against such milk. Had it remained in contact with ice from the first, much less could be scored against it, but almost the opposite is true. Generally, it has been subjected to a wide range of temperature and during much of the time rapid multiplication of bacteria has continued.

Progressive poultrymen here and there have begun the practice of stamping the date when laid upon all eggs sent to market. This is a capital plan, and now that the initiative has been taken it is not at all visionary to declare that the day is coming when all eggs will require this simple but valuable decoration. If the eggs offered in our markets as the winter days come and go could be accurately dated what relics would be found! Why should not every bottle of milk bear the day and hour when drawn? "Bread a day old" demands a reduced price and has its special uses. Why should not milk a day old be barred from the nursery, if not restricted chiefly to culinary uses?

Here is a demand for awakened sentiment looking toward ultimate statutory enactments covering our entire country. The subject comes under the great head of preventive measures to which our profession is by nature pledged. Why should not our society take the initiative and through the local and state boards of health endeavor to accomplish this end in the interest of our increasing number of bottle fed infants.

The aim in substitute feeding is always to bring the infant by the easiest, simplest and shortest route to the advanced point where it can take whole cow's milk with impunity. The individual infant, and not less frequently the milk, demands special study. They are both varying factors and happy, indeed, is the coincidence, or the applied skill, which

brings to an infant the right milk. While most infants can be brought to take whole milk by the end of the first year not a few require more time.

The demand for milk laboratories arises from the fact that cow's milk is chemically and physically unlike mother's milk. The curd is excessive in quantity and more unwieldly in character than that of mother's milk. The correction is made by simple dilution. This dilution, however, reduces the percentage of fats and sugar which must be raised by the addition of cream and sugar of milk or ordinary sugar. In doing so only relative proportions are possible even in the milk laboratories. Higher percentages of fat are obtained by using greater depths of top milk, as will be shown below.

The consensus of opinion favors beginning the feeding with milk that has been largely diluted and gradually increasing the percentages of the constituents till the limit of the digestive power of the individual infant has been reached then continuing with a dilution slightly less.

The curdling power of different milks and the power of different digestions to digest the curd are variable factors. The curd is essential to the proper accomplishment of the mechanical phase of digestion, but even here no fast rule can be laid down. Digestions and curdling powers are not alike. That explains why the milk of one cow may agree when that of another will not.

In a particular case the problem may arise simply from the fact that opposite extremes have met. A weak mechanical action of the infant's stomach and intestines may thwart the ends of digestion, because the milk is too largely diluted. In such cases a smaller quantity of a more concentrated milk will probably succeed.

But as already stated no hard rule can be laid down. The results are shown by the frequency and character of the stools. The general comfort and progress of the infant demand the most intelligent scrutiny.

Doctor Rotch has well said that infants cannot be fed by rule of thumb. It is equally true that intelligent and patient application of one's self to the manifold problem brings returns nowhere exceeded or excelled in the whole round of the physician's duties.

The same author's instructions as to home modification of cow's milk quoted from the *Journal of the A. M. A.* seems the most fitting close for this paper.



"The general principles for modifying milk are the same whether the milk is modified in the laboratory with carefully protected milk, and by skilled hands, or in the homes from whatever milk the individual is able to obtain and by hands as skilled as possible in the special household. The physician must, therefore, in making use of home modification adapt his methods as nearly as possible to those which are employed in the laboratories. This implies the careful choosing of a herd of cows, as clean and fresh milk as possible, and a reasonable certainty as to the strength of the cream used."

"The chief difficulty associated with the home modification of milk lies in the uncertainty in regard to the percentages of the materials with which we are working. If creams of guaranteed strength can be purchased from the laboratories or similar places, a home modification may be made with a considerable degree of accuracy. On the other hand, if we are dependent on the use of gravity cream obtained from milk of uncertain composition, the strength of the cream can only be approximately estimated. We may, however, assume that a quart of milk which contains 4 per cent. of fat to start with, and which has been allowed to stand for a varying number of hours, will yield approximately the following percentage of fat in the different layers of milk:"

#### Percentage Table.

Cream, 10 per cent. in the upper 8 ounces after 6 hours.
Cream, 10 per cent. in the upper 11 ounces after 8 to 12 hours.
Cream, 12 per cent. in the upper 8 ounces after 8 hours.
Cream, 16 per cent. in the upper 6 ounces after 8 hours.
Cream, 20 per cent. in the upper 4 ounces after 4 to 6 hours.

"Milk containing practically no fat, or, as it is called, 'fat-free milk,' can be obtained from the lowest eight ounces of a quart of milk which has been set for eight or more hours. The other materials used in modification, that is, lime-water, distilled or boiled water and milk-sugar, can be easily provided."

### ULCER OF THE STOMACH.\*

BY E. S. FOGG, M. D.,  
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The cause of round ulcer of the stomach is a matter that still perplexes clinicians and pathologists. A view advanced by the older writers is that a portion of the gastric mucosa is subjected to an influence that lessens or destroys its blood supply, the part dies and is digested by the gastric juice. This view is largely accepted to-day and looked upon by some of the best authorities, so far as it goes, as the true explanation of this affection. Just what produces

the changes in the vessels of the mucosa and so obstructs the flow of blood to the affected area is somewhat doubtful. It probably occurs, however, in many ways; a blow upon the epigastrium has been known to result in ulcer of the stomach; an extravasation of blood into the mucosa followed, with or without a tearing of the mucous membrane, and ulcer resulted.

It is claimed that such injuries are prone to heal and result in ulcer only when there is an excess of hydrochloric acid present. One author reports two cases in which he believed the disease to be due to lifting heavy weights. The effort of lifting causing an interference with the return circulation and producing the escape of blood into areas of the gastric mucosa. It is not yet clear just what the relation is between ulcer of the stomach and anaemia and chlorosis, clinically they frequently occur together.

Mechanical injuries, thermal and chemical irritations may produce lesions in the mucous membrane of the stomach, but it is believed that very rarely, if ever, do such lesions produce typical round ulcer. Just how burns of the skin produce duodenal and less frequently gastric ulcer is still undetermined. It has been suggested that mycotic influences sometimes produce lesions of the stomach mucosa that result in ulcer, but according to Riegel these ulcers are different from typical gastric ulcer.

Thrombosis or embolus may be the primary lesion that disturbs the flow of blood through the affected area; but it is still doubtful what brings about these vascular changes.

Typical gastric ulcer occurs only in the stomach and in its immediate vicinity, the lower part of the oesophagus and the beginning of the duodenum, so we may say, what has already been intimated, that the gastric juice has a definite relation to the disease.

According to one view the auto-digestion is due to the lowering of the alkalinity of the blood in the affected portion so that the acid gastric juice is allowed to act. This theory at one time was quite popular, but it seems likely now to be refuted. As pointed out by one writer, the cell that secretes the hydrochloric acid must be acid in reaction, and there are present, so far as the reaction is concerned, all the conditions for auto-digestion. In the theory just mentioned, it is assumed, as stated, that the digestion of the affected portion of the stomach mucosa is due to a reduced alkalinity of the blood in

\* Read at the 138th annual meeting of the Medical Society of New Jersey.

that portion. If this is the correct explanation, we may infer that the reason the stomach does not digest itself is because of the alkalinity of the blood flowing through its walls. Whatever it is in the normal cell of the gastric mucosa that enables it to resist the digestive action of the gastric juice, a similar principle obtains in regard to the cells of the mucosa of the duodenum and the glands of the pancreas. In the two latter organs the digestive fluids are of the same chemical reaction as the blood, viz: alkaline, and these fluids digest albuminous substances in an alkaline medium. Then, why is it that the duodenum and pancreas are not digested? The most rational explanation we have at the present time is the old "vital principle" theory of Hunter, which is also endorsed by some of the best modern writers. This theory is that the vital principle resists the action of these juices.

Then to sum up this phase of the question, our explanation at present as to the formation of gastric ulcer is that an interruption to the circulation of the blood through a given part of the stomach mucosa interferes with the nutrition of the tissues and destroys their power to resist the digestive action of the gastric juice.

It is worthy of mention that an injury of a tissue that would result in ulcer in the presence of a digestive fluid might not result in ulcer in the absence of such fluid. We see severe injuries to the skin and subcutaneous tissues, and marked extravasation of blood resulting therefrom without producing the least sign of ulceration. If a similar injury should occur to the gastric mucosa the affected area would, undoubtedly, be digested and ulcer follow. It is probable that the actual death of an area is not necessary to permit of its digestion, but that an injury without death, by reducing the vitality of the cells, will allow the digestive fluids to act and thus give rise to an ulcer.

A feature of gastric ulcer most difficult to account for is its chronicity. It is generally admitted that ordinary injuries to the mucous membrane of the stomach heal rapidly; while the lesion known as round ulcer is generally protracted in its course. It is believed by some that the chronic course is due to the presence of an excess of hydrochloric acid. It has been shown that ulcers produced in the gastric mucosa of dogs heal readily; but when hyperchlorhydria was produced artificially the healing was delayed. We know that in a large per cent. of the cases of ulcer of the stomach there

is present an excess of hydrochloric acid. By some the excess of hydrochloric acid is believed to be the primary event and that when a lesion occurs with this condition of the gastric juice present the excess of the acid keeps up the chronic condition. While most authorities do not mention specifically ingested food as an irritant that helps to keep up gastric ulcer and as an agent which excites certain abnormal physiologic and anatomic conditions which prevent healing, they, in their discussion of the treatment, admit that this may be the case. Personally, I believe it to be a prominent factor in keeping up the chronic condition of ulcer.

It would seem that there had been undue importance attached to observations made through animal experimentation in the study of this condition. An incision into the gastric mucosa of a dog that heals rapidly does not necessarily prove that all incisions in the gastric mucosa of man heal rapidly; or to retard the healing of an ulcer, produced in the dog by introducing certain artificial conditions does not prove that the protracted course of ulcer in man is due to similar conditions. The animal is placed under unnatural conditions the food taken cannot be like that taken in health; indeed, a dog under such circumstances would refuse to eat, and the conclusions, aside from applying to man, might not apply to a healthy dog. All such experiments are important to be sure; but they should not be taken as final.

It seems best to pass over a further consideration of the morbid anatomy of this disease and consider at once the diagnosis and treatment. And here it may be said the only reason for choosing this subject was to emphasize the importance of early diagnosis and prompt and vigorous treatment.

The disease is a common one. It is a disease of young adults and the middle aged. Males and females are probably affected in about the same proportions. Possibly females more frequently than males.

It is not possible to enter into a discussion of all the symptoms and signs, only brief reference will be made to a few. There are generally dyspeptic symptoms, such as nausea, vomiting and eructation of gas. In one case the only symptom was a constant ache in the region of the stomach. This aching sensation in the epigastrium is a very common and characteristic symptom. It is attended with circumscribed tenderness. The ache is often made worse by pressure



upon the sensitive area. It is also increased often-times by jolting or walking.

Hemorrhage, if present, or if it has occurred in the history of the case, is a very important symptom, but like many other signs and symptoms its absence means nothing. There is generally hyperchlorhydria. In those cases in which hyperchlorhydria does not exist it is supposed by some that an excess of hydrochloric acid was at one time present and helped to initiate the chronic course of the disease but afterward subsided.

As already stated, gastric ulcer is a very common disease, probably more frequent than is generally believed.

Many cases are treated as mere dyspepsia. Probably very few cases are recognized at the beginning, unless hemorrhage is the first condition to attract attention, or occurs early. This is a most unfortunate circumstance, for many who suffer from gastric ulcer; not only does it entail needless suffering, but in time changes take place in and around the ulcer which render healing long and difficult, and in some cases preclude its possibility. These facts are an admonition to be alert to the possible existence of this condition in patients complaining of stomach or abdominal trouble. Appendicitis, until recently, was very commonly overlooked, even after its pathology and symptomatology were understood. Its frequent occurrence was not appreciated. At the present time, on account of its frequency, it is recognized to be the most important intra-abdominal disease, and the intelligent physician, when consulted for abdominal distress, at once aims to detect or exclude the presence of a diseased appendix. Similarly it should be with ulcer of the stomach. In a patient suffering from abdominal pain or distress or dyspeptic symptoms, one of the first conditions, as it is one of the most serious, that should suggest itself to the mind of the physician, is gastric ulcer and he should try to determine whether or not it is present.

The treatment of ulcer of the stomach is very simple. A rigid restriction of the diet is the most important indication. This should be adopted at the very outset in the treatment of every case, and the patient put to bed. The custom of calling at the doctor's office and getting medicine, going about and "being careful" as to the diet has no place in the treatment of ulcer of the stomach.

After putting the patient to bed very small

quantities of liquid food may be given by the mouth, such as panopeptons, liquid peptonoids, extracts of beef, peptonized gruels and small quantities of water. Milk seems to agree with some, to many it is decidedly harmful. It is probably wise to withhold it until the patient has improved somewhat.

Many cases will improve upon this treatment, but it is probably better to feed all cases from one to two weeks by the bowel, giving only water by the mouth. If vomiting persists even water should be withheld by the mouth for a few days. It is not an uncommon experience to have all pain and tenderness subside within two or three days after these rigid measures have been pursued. Mouth feeding should be resumed with caution. Such diet as already suggested for the treatment of cases in which mouth feeding is followed throughout may be employed.

Medication, while the least important, is, perhaps, of some benefit. Bismuth subnitrate in large doses in connection with the dietetic treatment mentioned has given most satisfactory results. The exhibition of alkalies for the purpose of neutralizing the gastric juice has been advocated, and also stomach washing with a solution of silver nitrate. The latter seems like a rather heroic proceeding, particularly as the exact pathologic condition present in these cases must be a matter of guess, unless seen upon the operating table or post mortem.

The time is certainly ripe for surgical measures to be more extensively employed in the treatment of gastric ulcer than in the past or at present, though something has been already done in this direction.

Until our technique is further perfected, only those cases should be operated upon in which the symptoms persist, notwithstanding the most thoroughly conducted dietetic treatment, and whose sufferings and physical condition justify a considerable risk in an attempt to cure.

Anyone who has seen the stomachs of some of these unfortunates post mortem must recognize at once that the diseased parts have been in such a condition for a considerable time preceding death as to have rendered a cure impossible by other than surgical means.

## DISCUSSION

**Dr. Joseph Tomlinson, Bridgeton.**—The subject under consideration is such a broad one, and one in which such varied phases are presented, that comparatively little can be said concerning it, in the brief time allotted for its

discussion here. I shall, therefore, allude only to a few points which impress me with especial emphasis in connection with the subject of gastric ulcer. These are: First, its frequency; second, the diagnosis; third, the treatment. As stated by Dr. Fogg, ulcer of the stomach is a very common disorder and of much more frequent occurrence than is ordinarily supposed. Many cases of so-called indigestion and gastric catarrh are, no doubt, cases of chronic ulcer of the stomach and many sudden deaths from perforating ulcer, without doubt, go unrecognized. In fact, as intimated in the paper just read, the status of gastric ulcer, from a clinical standpoint, is at present, both as regards diagnosis and treatment, very analagous to that of appendicitis and extra uterine pregnancy twenty years ago. A certain proportion of cases of gastric ulcer present no symptoms and are, therefore, unrecognized during life. Cancer may also develop in the cicatrix of an old ulcer and what was primarily a case of ulcer of the stomach may be ultimately classified as cancer. Taking all these points into consideration we are, therefore, forced to admit the very great frequency of ulcer of the stomach. The relative frequency of perforation is quite variously estimated. Brinton places it at one perforation to eight cases. In 187 consecutive cases observed at the Massachusetts General Hospital there were only six perforations, while in 500 cases observed in the London Hospital perforation occurred in 10 per cent.

The diagnosis of gastric ulcer often presents many difficulties. Cancer, gall stones and even appendiceal trouble may simulate it in symptomatology very closely. Indeed, in many cases there is but one way to an absolute diagnosis, and that is by means of an exploratory incision.

When we consider with how little risk to the patient this can be done, and how much an early diagnosis means in many diseases of the stomach, the wonder is that it is not more frequently resorted to in cases of doubt. Though a few surgeons are frequently practicing exploratory laparotomy as an aid to early and accurate diagnosis in stomach disorders, the rank and file of the profession are loathe to advise it. Hence it happens, that, relying upon the uncertain chemical test in cases of suspected cancer, or waiting to find the tumor, the patient is doomed when the diagnosis is made; for it is then usually too late for operative treatment. So in the disease under consideration, an accurate diagnosis is of the utmost importance and often cannot be arrived at by any other method than exploratory incision. This procedure is especially to be advocated in view of the fact that the great percentage of cases both of cancer and ulcer exist near the pylorus, the part of the stomach most accessible and most easy of inspection.

In the diagnosis of perforating ulcer of the stomach, the life of the patient depends wholly upon accuracy and promptness. In my own experience there is one symptom which is a very reliable one in helping to arrive at an early diagnosis; that is abdominal rigidity. This is very often present before distension and taken in connection with the sudden agonizing pain and symptoms of shock

in a person giving the history of gastric ulcer offers almost positive evidence of perforation.

The reflex manner in which the extreme rigidity of the abdominal muscles is produced in cases of perforation of the stomach, seems to be brought about chemically, or at least by toxic influence rather than mechanically; for it does not ordinarily occur where aseptic foreign bodies are left in the peritoneal cavity, intentionally or otherwise. In the treatment of ulcer of the stomach, medical measures are in many cases disappointing and seem to depend practically upon rest given the organ by the withholding of food. The fact that we have not only a chemical and physiological, but also a mechanical and anatomical condition to deal with is, however, often overlooked. The distortions, contractions and cicatrices resulting from ulcer of the stomach oftentimes give more pronounced symptoms than the ulcer itself, and here also surgery is finding a wide sphere of application.

Only by the hearty and intelligent co-operation of the physician and the surgeon, in the study and treatment of this most important disease, can the best results be obtained.

### SCHOOL INSPECTION.\*

BY JOSEPH TOMLINSON, M. D.,  
BRIDGETON, N. J.

The subject of my paper as it appears upon the program does not convey an exact impression of what I wish to discuss at this time. It is my wish to say something of the compulsory medical inspection of schools and its relation to the introduction into the public schools of a department of physical education.

The health and physical condition of school children receive far more consideration than formerly. There are many reasons why this is true.

More attention is paid, in recent times, to matters of hygiene in general. School buildings share with other modern structures, the benefit of the progress made in heating, lighting, ventilation, lavatories, etc.

The necessity of prophylaxis and isolation in communicable diseases is more thoroughly appreciated than it used to be. In large cities the tenement house evil fills the schools with puny children whose need is, plainly, air, food, and exercise, quite as much as mental pabulum. Many occupations, by reason of the substitution of improved machinery for hand labor, are no longer available as a source of muscular education for boys.

All these are reasons why the school child of to-day receives more attention than for-

\* Read before the New Jersey Sanitary Association, December 10, 1904.



merly, as to his physical well-being. Beside all these, there is still another and, I think, perhaps a more potent reason than them all. It is beginning to dawn upon the community that the very environments and methods of our present educational system are, in no small degree responsible not only for many physical defects, but also for a lack of proper physical development during the formative period of life.

The cramming system, the attempt to do too much in too short a time, is each year claiming more victims. School inspection has done and is doing much to better the hygienic condition of school houses and of pupils. It has done and is doing much to prevent the spread of communicable diseases, to detect and remedy, troubles of eye, ear and throat.

In spite of criticism and some disappointing results, it is, undoubtedly, a move in the right direction. It is the method and not the principle which is open to criticism. To be fully effective, it must be first general, second, thorough.

School inspection in this state is entirely optional with local boards of education. These boards are also authorized to fix the salary and define the duties of the medical inspector. In order to effect a general school inspection throughout the state, it must be compulsory rather than optional, and in order to be thorough, it must be done by a competent physician receiving adequate compensation for thorough and pains-taking work. Some uniform standard of requirements and of methods to be followed by all school inspectors would be an assurance of better service.

But after school inspection has done all which properly belongs to its sphere in detecting and preventing disease, it has only accomplished part of what should be done for the physical welfare of the pupils of the public schools. They should be taught something of practical hygiene and should receive, as part of their public school education, such exercises as will insure normal bodily development.

The duty of the individual to care for the body should early be impressed upon the child and at the same time he should be given a practical idea of how to accomplish this. The love of life is a God-given instinct and the preservation of health is a sacred duty.

If the principle of personal hygiene were more fully appreciated as a duty, and if it were more fully lived up to, the standard of

individual morality would be greatly elevated. If the evils arising from uncleanness, from the disregard of the laws of health in eating and drinking, and the neglect of sexual hygiene could be eliminated, there would be little lacking in the enforcement of the moral code. Bodily health in the fullest and strictest sense bears a very intimate relation to moral integrity. The interdependence of mind and body, as expressed in the old adage "*Mens sana in corpore sano*" is, I think, accepted without a challenge.

When, therefore, so much depends upon the understanding and application of the laws of hygiene, why should they not be taught, practically and explicitly, at the very time in life when they are most essential? Why should there not be in all the public schools of this state a department of physical education?

I would define physical education, in this connection, as the department of instruction which aims to develop, strengthen and discipline the body, by directed, systematic exercise, and to secure and maintain good health through practical knowledge of the laws of hygiene.

Hygiene is applied physiology. Only by a strict interpretation of this term and unwavering adherence to it, can any real or lasting results be obtained in this field. Fads in physical exercise come and go, but we must build on a more secure foundation than a passing fancy. Our whole aim should be to have taught as fully as possible the chief function of every organ or set of organs in the human economy and how to assist in the performance of such functions. It is not to make athletes on the one hand, or to cure diseases or deformity on the other, that we would urge the introduction of such a department, but to secure proper growth and development based on some knowledge of physiology and anatomy. The need of such a department is urged by many educators.

At a meeting of the Educational Section of the International Congress of Arts and Science, Dr. William H. Maxwell, superintendent of the public schools of New York City, made an address in which he observed that no school was doing adequate work without physical culture in the form of play, gymnastics, athletics and manual training.

In a personal letter to a friend of mine, on this subject, the school superintendent of one of the largest cities in this state says: "I take the ground that educational theory

universally accords supremacy to the physical side of education wherever it conflicts with the intellectual side: that because of our almost universal apotheosis of training in the three R's we neglect most shamefully considerations of health and growth. As proof of the supreme importance in my mind of the physical side of education I would personally be willing to have a health officer as a ranking officer to the city superintendent with plenary powers as to all matters relating to the construction, adaptation to school requirements, sanitation and hygiene of school buildings and all connected therewith. He should have all the powers that are accorded to health boards in respect to contagious diseases."

Physical education, as I have defined it, involves, necessarily, some instruction in anatomy and such practical knowledge of organic function or physiology, as bears upon the ordinary health conditions. To attempt to teach anatomy, except in a very general way, is, of course, impossible and out of place in the public school. But the functions of organs and the various means at hand to assist and preserve these functions can be taught more fully and explicitly. For instance, in the muscular system it could not be expected that the names of muscles, except, perhaps, a few, be memorized. But their groupings and their actions could, in a general way, be taught. It should be shown to the pupil that the uses of the muscles are for posture, as standing, sitting and assuming various attitudes, for motion which would include locomotion which again would include running, walking and swimming.

All these uses of the muscles, though so common, are very faulty. For instance, the prevailing awkwardness of the country lad and lass is not a necessity. It is largely due to lack of discipline and control. The physical embarrassment which comes to any rapidly growing youth need not exist if he is receiving proper physical training. The erect carriage and manly bearing of the soldier could be made the accomplishment of every school-boy. The grace and physical control characteristic of the girl of refined bearing could be made the accomplishment of every school-girl.

Besides being taught how to walk and run and stand and sit, school children should be taught to swim. This is a matter of utility quite as much as one of exercise and sport. The importance of this subject can be realized when it is known that eighty per cent.

of public school children are unable to swim; that is to say, that, of every five thrown into deep water, four would drown. In the frightful General Slocum steamboat disaster last summer, more than a thousand persons, hundreds of them children, lost their lives because unable to swim. This and other drowning accidents in lakes and at the seashore have incited several cities to teach swimming in the public schools, either in tanks or by means of swimming exercises.

I have taken the muscular system as an example of how the theory and practice of proper function can be taught both because of the importance of the muscles and also because in training them other organs are indirectly brought into activity, as the heart and circulatory system, the lungs, the sight, and hearing.

I am aware of the fact that in many public schools throughout the country, physical exercise and physical education are being efficiently taught. Wherever they have been introduced the results have been, I think, most gratifying.

Henry R. Edmunds, President of the Board of Education of Philadelphia says: "All the children have been much benefited since we introduced class-room calisthenics and setting-up drills, and arranged for them to have some exercise in the open air during the day. Headache, which used frequently to interfere seriously with the work in the class-rooms, has almost entirely disappeared. What improves a child's health is pretty certain to improve the chances of his turning out a good citizen. And swimming, cleanest and most exhilarating of exercises, is needed most of all. Until the schools are able to attend to this duty, it devolves upon the parents and it is one that they should not neglect."

A general and systematic medical inspection of schools, supplemented by a department of physical education would insure to the youth of our land a priceless boon. This can only be affected by legislation to this end. A bill with this object in view will probably be introduced at the next session of the legislature of this state. Two objections are likely to be raised against it; first, the expense involved; second, that it will take too much of the pupil's time from study. To the first objection, my answer is that the results to be obtained justify the expense. An answer to the second objection involves a consideration of the real aim of public school education.

If, as seems to be the prevailing impres-



sion at present, the public schools are to be stuffing machines to fill the young brain full of dry facts and technicalities, physical education has no place in their curriculum. If, on the other hand, their object is to help the young child to grow mentally, to develop and acquire mental power and vigor, if quality of work, rather than quantity of work is to be the standard, if a normal co-relation between mind and body is a desideratum, if, in short, we wish to graduate from our public schools well-rounded men and women, then it is our duty to give due regard to their physical education.

It was James Russell Lowell who said: "It was in making education not only common to all, but in some sense compulsory on all, that the destiny of the free republic of America was practically settled."

The schools determine, more than anything else, the character of our citizens and our country.

I realize that I have treated a very broad and important subject quite imperfectly and superficially. It has been my aim to suggest rather than to attempt any exhaustive discussion. But I am deeply impressed with the necessity of a more practical and more perfect method of instruction of school children as to the laws of their being, that there may be instilled within them a full appreciation of the sacredness of life and health, and a dutiful desire to prolong the one and preserve the other.

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### CALOMEL

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#### As an Intestinal Antiseptic.\*

BY ALEXANDER McALISTER, M. D.,  
CAMDEN, N. J.

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The unprecedented success of antiseptic measures in wound treatment have made an effort to apply similar principles everywhere in medicine, as well as in surgery, inevitable. The universal cause of disease had at last been apprehended, apparently at least, in bacterial life and the panacea, antiseptics, was discovered. Sterilize wounds; disinfect everything—the mouth, the respiratory tubes, the alimentary tract, the urinary apparatus, the blood, etc.—became the watchword. The theory was: give all the vital processes aseptic materials upon aseptic work benches and disease cannot exist.

Time has now demonstrated with a fair degree of clearness the range of utility of

\* Read at the 138th Annual Meeting of the Medical Society of New Jersey.

antiseptics in internal therapeutics. The purpose of this paper is to consider their application to the alimentary canal, particularly in pediatrics, and to compare the effects of calomel with those of the group of remedies commonly classed as intestinal antiseptics.

Efforts to apply antiseptic measures to the alimentary tract have resulted in much animated discussion and valuable experimentation. Already much important knowledge has been gained regarding this interesting region of the animal economy. The gist of this knowledge is contained in the statement that an aseptic alimentary canal is an impossibility by any known method; and, further, that a condition closely approaching it is impracticable and injurious.

Bacterial activity is essential to normal digestion and assimilation. The products of bacterial life act mechanically and chemically as stimulants of intestinal activity. In other words, this region has its normal flora in the growth and activity of essential intestinal bacteria. The presence of a powerful antiseptic in the intestines is injurious to the degree in which it is destructive to this normal flora.

Excessive bacterial activity is a prominent characteristic of all morbid conditions of the alimentary tract. If not generally causative, it is always active in prolonging and aggravating disease. Every remedial measure which fails to restrain this excessive activity is valueless. The feature to consider, then, is not the presence of bacteria in the intestines, but their proportion and condition; or, in other terms, an abnormally dense flora.

Fermentation and putrefaction are processes of the highest importance in normal digestion. The former is always abnormal when it occurs in the large intestine and the latter, when it occurs in the small. It has been suggested that digestive activity is probably the sole restraining cause of putrefaction in the small intestines. It certainly so acts with reference to fermentation in the colon, for properly digested food has no particles which are any longer susceptible of fermentation.

On the other hand, excessive fermentation in the small and excessive putrefaction in the large intestine are both abnormal conditions due to a too dense bacterial flora, the latter being the same in the large and small intestines.

The presence of products of incomplete or otherwise faulty digestion in the colon favored by intestinal torpor, always results

in fermentation or excessive putrefaction, or both; and retained matter anywhere in the intestinal canal, undergoes secondary decomposition. But, whether one or the other morbid process obtains the result is that new and deleterious chemical products are formed which cause disease.

Two facts relative to the products of excessive bacterial activity are of special interest in this connection. First, they lack the intestinal movement, and thus indirectly as well as directly retard digestion. Second, this effect is accumulative in its character. As the toxic chemical products are absorbed conditions are rendered more and more favorable for the production of still larger quantities of such products.

The morbid results are shown in such various conditions as constipation, the bilious state, diarrhea, enterocolitis, skin diseases, etc. The indications for treatment are always three-fold. Fecal accumulations must be removed, glandular activity stimulated and the excess of bacteria reduced to the normal proportion.

The order of importance of these indications is observed in the above statement. The first is essential to the accomplishment of the second and *vice versa*, the second is needed to bring about the first. On the other hand, both are directly and indirectly active in gaining the third.

The intestinal antiseptics — naphthol, naphtholine, creosote, sulphocarbolates, salicylates, salol, etc., all interfere more or less with the digestive functions. This is a stubborn fact in clinical medicine capable of demonstration in the test tube. The digestive ferments, whether in the body or out, cannot act normally in the presence of this class of drugs. These antiseptics do not pass through the stomach without interfering with gastric digestion. In the intestinal canal they may or may not be actively germicidal. Their general effect is to retard rather than stimulate glandular activity and peristalsis, and thus they leave the bowel contents unmoved.

Some of the remedies named are of especial value for controlling intestinal fetor, because effective in minute doses. This applies particularly to the sulphocarbolates. But none fully meet the three-fold indication for antiseptic treatment even when preceded by suitable cathartics.

Their usefulness is small, especially in the treatment of children, in my experience. In the treatment of adults, on the other hand, certain conditions call for their systematic employment. Typhoid fever, when

there is looseness of the bowels, and certain diarrheal diseases may be named as examples.

Calomel, while never so classified, is yet our best intestinal antiseptic in pediatric practice. It alone can be depended upon to meet the three-fold indication for treatment above named. The mercury group gives us our best antiseptic for external local treatment. It is but natural that this group should contain also the best antiseptic for internal use. It is an odd fact, that both these mercurials are chlorides and that while the former is a corrosive poison, the latter is "sweet," as the ancients described it.

Unlike the so-called intestinal antiseptics, calomel does not interfere with the action of digestive ferments. It does not retard a single normal process, whether secretory or mechanical. On the other hand, the functions are stimulated and given tone to resume normal activity. This applies to the liver as well; no matter whether we regard the drug as a true cholagogue or merely as a stimulator of the flow of bile.

In the presence of free alkalis a small portion of calomel is converted into black oxides, probably the only form in which the medicament is absorbed. This is still, however, a debated subject; but the mooted questions have only a passing interest, since the antiseptic effect is obtained so largely in an indirect way. There is direct antiseptic action by reason of which, in a measure at least, the mercurial purgatives are so distinct and unique a class. The oxide exerts such action in extended treatment throughout the length of the intestinal canal.

The point of greatest interest in the comparison of calomel with the members of the group above named, is this indirect antiseptic action. Calomel liberates the stagnated bile, increases the pancreatic secretion and stimulates all the intestinal glands. The result is not merely the characteristic large watery "calomel stools"; but, and this is the feature of greatest interest, the restoration of functions which make for a normal intestinal flora.

In normal digestion provision is made for the neutralization of acids, that are no longer required, and for the removal of free alkalis when digestion is completed. In like manner provision is made for the destruction of normal bacteria when their work is done and for holding their growth within normal bounds during digestion.

The latter result we have in what is called the antiseptic power of normal secretions, digestive juices, etc., of which there re-



mains much to be learned. But the point in consideration here is the fact that calomel stimulates the flow of these normal intestinal antiseptic fluids in a manner foreign to all other drugs.

Speaking especially of the treatment of children calomel with its long history is our best intestinal corrective and antiseptic. It is now used more than ever before and its scope of application is sure to continue increasing. Small doses place the drug in easy control and enable the physician to gauge and prolong the therapeutic effects.

At the present time one-tenth grain doses are used more frequently than any other by the profession in general. Smaller doses will come into larger use because their effect is better understood, the drug is applied with more skill and the former bitter hostility toward it has largely disappeared.

Every quality of calomel, physical and remedial, eminently adapt it to the treatment of infants and children. That children literally fatten on calomel is a commonplace observation.

As a rule, I administer one-tenth grain doses every hour until one grain has been given, or till evacuations occur. If the condition treated is diarrheal smaller doses are employed or the interval lengthened. Whatever the condition, the first object in treatment is to impress the system by reducing abnormal bacterial activity. In gaining this point the combination of soda bicarbonate with calomel acts beneficially by facilitating the conversion of the insoluble chloride into soluble compounds.

#### A TROLLEY CAR SANATORIUM.

A committee of the New Jersey State Charities Aid Association has devised a plan for the establishment of a trolley car settlement for pauper consumption patients at Snake Hill on the Hackensack Meadows. It is believed that the Board of Chosen Freeholders, which has charge of the county institutions at Secacus, will provide for the tuberculosis colony on the highest point on the hill. The president of the Public Service Corporation, a trolley company operating in northern New Jersey, has promised to place at the disposal of the committee several trolley cars whose days of usefulness are over. The cars will be taken to Snake Hill and placed on stone foundations at a considerable distance from the penitentiary, almshouse and lunatic asylums. The first patients to be admitted to the trolley car settlement will be consumptive men and women inmates of the almshouse. There are about twenty of each. The town of Scotsdale, Ariz., has a tuberculosis colony inhabiting about 1,500 abandoned trolley cars.—*Med. Record.*

#### CORRESPONDENCE.

410 Westminister Avenue,  
Elizabeth, N. J., Jan. 13th, 1905.

*My dear Doctor Newton:*

The physicians of the City of Elizabeth have formed a medical club. The objects of which are scientific, social and the advancement of the best interests of the physicians themselves.

Every legally qualified physician, without regard to "school," is eligible to membership. The club will establish a "black list" and employ a collector. It will bind its members not to make contracts with societies or lodges, nor to attend the members of such organizations for less than the regular professional fees.

The club will inculcate charity and honest dealing toward all medical men. They hope eventually to have a club room containing a good medical library.

There will be stated monthly meetings for the discussion of medical topics of general interest. The officers are as follows: President, Norton L. Wilson; Vice-President, John Younglove; Secretary, Charles H. Schlichter; Treasurer, John P. Reilly; Executive Committee, Arthur Stern; Louis R. Brown, Thomas N. McLean.

We are broad, liberal minded doctors and are willing to give and take. Yours truly,

NORTON L. WILSON.

419 Chestnut Avenue,  
Trenton, N. J., Jan. 13th, 1905.

*Dr. Richard C. Newton:*

DEAR SIR:—Pardon me, if I take up too much of your time, but I am quite sure that you will agree with me, that the subject of contract practice of medicine, is an important one, by this I refer to the societies and lodges, which elect a physician for a specified time for a specified salary. How may I obtain information regarding this practice in the counties of New Jersey and in fact in the whole Union?

The Mercer County Society has taken steps to eradicate this rapidly growing evil—now, we need the support of the State of New Jersey, and finally the support of all States.

Our Society appointed a committee to investigate the manner in which the Trenton Emergency Hospital is being conducted, and also the practice by contract with lodges and societies. Circular letters were sent out to each regular physician in the county, for signature, if satisfied that this practice was unethical and unremunerative. Most gratifying is the result, and to-day we have an agreement called "Non-Contract Agreement," signed by the majority of the physicians practicing by contract. Before our next meeting in February, we expect to gain the signatures of all physicians within Mercer County. Every physician is willing to give it up, if the other fellow will, and we are fast approaching the last "other fellow."

We do not want the importation of contract doctors, this is my reason for asking for information from other counties.

I think the JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY a grand idea, as we need something of this kind to keep us in closer touch with each other, between annual meetings.

Trusting that I may hear from you, I remain

Sincerely yours,

A. DUNBAR HUTCHINSON, M. D.,  
Pres. Mercer Co. Society.

55 W. 36th St., New York City.

Dear Dr. Newton:—

I am enclosing an itinerary of a proposed special train outing in connection with the July meeting of the American Medical Association which may interest yourself and the readers of your valuable journal.

The entire expense of the trip as planned is estimated to be \$325.00 per head.

Sincerely yours,

F. H. WIGGIN.

**MEMORANDUM OF THE PROJECTED  
TOUR OF A SPECIAL PARTY TO  
THE AMERICAN MEDICAL AS-  
SOCIATION MEETING AT  
PORTLAND, OREGON,  
JULY, 1905.**

This party will travel by a special train, composed of about five sleeping cars, and a dining car. The present schedule contemplates leaving New York the evening of June 27th. A stop next day will be made at Niagara Falls, for about ten hours, taking in the "Gorge Route Trip" and other points of interest.

The next stop will be made at Kilbourn, Wis., for the steamer ride through the Dells of the Wisconsin River (the scenery of which is beautiful and fantastic) breaking the monotony of the trip. The next day, a stop of twelve hours will be made at Lake Minnetonka, Minn., a beautiful sheet of water, thirty miles in length, affording all kinds of water amusement, such as boating, bathing, fishing, etc. After leaving Lake Minnetonka, no stop will be made, until Yellowstone Park is reached, where the party will leave the train and spend five and one-half days in the Park. Special stages will be provided for the party, and stops for meals and lodging will be made at regular Park hotels, which are especially well equipped for high-class tourist business.

Coming out of the Park, the next stop will be five or six hours at Butte, Montana, a typical Western mining city. Seattle, Washington, an important seaport on Puget sound, will be visited next—the afternoon and evening being devoted to sightseeing.

The present schedule provides for the party to arrive in Portland Monday morning, July 10th, remaining until the evening of Friday, July 14th, which time will be given to the meeting of the American Medical Association, and sight-seeing, including the Exposition, which will be open at that time. After leaving Portland, the next stop will be in San Francisco, arriving there Sunday morning, July 16th, and remaining three days, until the evening of Tuesday, July 18th. This time will be given to sight-seeing, including the city of San Francisco, and the trip up Mt. Tamalpais, the Golden Gate, etc., etc.

Los Angeles will be reached Wednesday morning, and two days given to that vicinity, including the trip on the Orange Belt route, visiting the orange groves, etc., including Mt. Lowe, and other points of interest. Returning, a stop of a few hours will be made at Sacramento, the capital of the state.

Salt Lake City will be reached Sunday morning, July 23rd, and the entire day spent in sight-seeing, including a trip through the city

in special cars, the Mormon Temple and Tabernacle, and a visit to Salt Air Beach on Great Salt Lake. The following morning, Glenwood Springs, Colo., will be reached, where a stop of a day will be made, which will be particularly interesting to physicians, on account of the vapor baths and caves, hot baths, plunge pools, etc. This is a beautiful spot in the mountains, and the stop is sure to be enjoyed.

Leaving Glenwood Springs at a convenient hour next morning, the impressive mountain scenery of Colorado will be passed in daylight, and Colorado Springs reached shortly after noon. A trip through the Garden of the Gods, up Pike's Peak, and over the scenic route to Cripple Creek, visiting the mines and other points of interest will occupy the following two days. An afternoon will be spent in Denver, on a special sight-seeing car, giving a very good idea of this beautiful Western City, built on the great plains, within view of the mountain ranges fifteen miles west.

The next stop will be at Omaha where, under special invitation, several hours will be devoted to inspection of one of the large packing houses in that city, giving a thorough insight into the way the business is conducted, and beef extracts and other by-products manufactured.

Leaving Omaha, a straight run will be made to New York, arriving, on present schedule, Sunday morning, July 30th—having been away from home thirty-three days.

While in Yellowstone Park, Portland, and San Francisco, the party will be quartered in first-class hotels. The remainder of the time, they will live on the train.

**THE BRACER.**

"The bracer" is the name popularly given to a so-called patent—that is, not patent, but very secret—concoction sold at "soda water" fountains by the nostrum drug stores. In some towns or small cities, and in some parts of our country it is said that practically every one has this form of the drug habit, for such it is. Narcomia is being extended by this means to an extent that is frightful. "Clerks and office men are hardly able to go to their work until they have had four or five glasses of these secret drugs, and the laboring population is almost as bad." The attention of the Woman's Christian Temperance Union (which thinks the medical profession responsible for alcoholism and drug habits) is respectfully called to this atrocious abuse. Saloons also help in the degrading horror of drugging the already wretched quality of the liquors sold. All true temperance people will unite with the medical profession to check this abuse. Women's civic improvement clubs and leagues might well devote some of their energies to getting good laws passed and in getting bad men to execute them. If they would set about it, the women could outroot this and many similar evils. Possibly no new laws are needed, and that only scientific analyses of these drugged drinks should be made in a thoroughgoing way, followed by prosecutions of the criminal manufacturers and sellers, followed by jailing the wretches who thus defy every demand of law, medicine and health.—*American Medicine.*



## News from the County Societies

At the annual meeting January 13, 1905, the following named gentlemen were elected officers for the ensuing year: President, Emery Marvel, Atlantic City; Vice-President, E. H. Madden, Absecon; Secretary and Treasurer, Edward Guion, Atlantic City; Reporter, A. B. Shimer, Atlantic City.

The Union County Medical Society held its regular meeting on January 11th, at the Elizabeth General Hospital and Dispensary. There were so many cases reported and discussed that the essayist, Dr. Charles H. Schlichter, could not read his paper on "Pemphigus."

Professor William H. Welch, of Johns Hopkins University, addressed the Essex County Medical Society on January 17th, on the subject of "Some Practical Applications of the Principles of Immunity."

At the annual meeting of the Burlington County Medical Society, held January 12, the following officers were elected: President, Dr. J. Howard Pugh, Burlington; vice-president, Dr. Frank G. Stroud, Moorestown; secretary, Dr. George T. Tracy, Beverly; treasurer, Dr. Enoch Hollingshead, Pemberton, and censors, Drs. Alexander Marcy, Jr., Riverton; Elmer D. Prickitt, Mount Holly, and Alexander H. Small, Riverside.

### BOOK REVIEWS.

**BLOOD PRESSURE AS AFFECTING HEART, BRAIN, KIDNEYS AND GENERAL CIRCULATION.** A Practical Consideration of Theory and Treatment. By LEWIS FAUGERES BISHOP, A. M., M. D., Physician to the Lincoln Hospital, New York, late Chairman of the Section on Medicine of the New York Academy of Medicine. Member of the New York Pathological Society, the Neurological Society; Alumni Association St. Luke's Hospital, etc. 16mo., 112 pages. New York: E. B. Treat & Co., 1904. Price, \$1.00.

The author makes a claim for better and more thorough clinical study of the dynamics of the circulation, and depreciates a too implicit reliance upon so-called laboratory methods of study, valuable as these unquestionably are.

He asserts that as tuberculosis carries off many of the most promising of our youth, so circulatory disorders cut off prematurely many of the world's most valued workers, and rightly holds that adding years to the usefulness of the latter is as important as the prevention of the early demise of the former.

He divides the cases of abnormal blood pressure into two principal groups, the low tension and the high tension cases, with a third group of secondary low tension cases in which there has been a preceding high tension.

He considers these three classes separately with the regimen and therapy, both prophylactic and curative, appropriate to each and concludes with a chapter on general considerations, and one on the estimation of blood pressure and the use of the nitrites for its modification.

The subject is handled in a refreshing way, and the perusal of the brochure tends to broaden one's views on a topic of absorbing interest, which has been as yet too little studied.

**THE SURGICAL TREATMENT OF BRIGHT'S DISEASE.** By GEORGE M. EDEBOHLS, A. M., M. D., LL. D., Professor of the Diseases of Women in the New York Post Graduate Medical School and Hospital; Consulting Surgeon to St. Francis Hospital, New York; Consulting Gynecologist to the St. John's Riverside Hospital, Yonkers, N. Y., and to the Nyack Hospital, Nyack, N. Y.; Fellow of the New York Academy of Medicine, and of the American Gynecological Society; Honorary Fellow of the Surgical Society of Bucarest; Permanent member of the Medical Society of the State of New York, etc. 8vo., cloth, 340 pages. New York: Frank F. Lisiecke, 1904. Price, \$2.00.

That Dr. Edebohls has put the entire profession under a deep obligation by his frank and logical discussion of this subject is apparent. Having accidentally discovered that diseased kidneys had improved in five cases in which he had done nephropexy, which involved decapsulation, he performed January, 1898, "the first operation ever undertaken upon the kidneys with the deliberate purpose of curing chronic Bright's disease." Since that time he has done the operation sixty-six times and relates the histories of the cases and the results in his book. He sums up the results as follows: "Of the entire number of 72 patients, 13 received no benefit from operation, while 59 experienced amelioration varying all the way from slight and temporary improvement to complete cure. In 9 cases the operation proved directly life-saving by rescuing the patient from immediately impending death." There were 7 immediately fatal results and 22 ulterior or remote deaths. Twenty patients experienced decided improvement and a majority appear to be on the high road to complete health, and 17 recovered completely.

As our author modestly says, "The surgical treatment of Bright's disease is on trial. \* \* \* Years of patient observation will be required to determine and establish finally and definitely the value of any method of treatment."

The author claims that any form of Bright's disease is susceptible of improvement and perhaps cure by his method.

No one can read his book carefully without taking a deep interest in the outcome of the weighty questions involved.

The book is well printed from clear type and is of convenient size and attractive appearance.

### BOOKS RECEIVED.

**ABBOTT'S ALKALOID DIGEST.** A Brief Therapeutics with Clinical Applications. By W. C. ABBOTT, M. D. 16mo., 240 pages, flexible cover. The Clinic Publishing Co., Chicago, 1904. 50c.

**A THERAPEUTIC GUIDE TO ALKALOIDAL DOSIMETRIC MEDICATION.** By JOHN M. SHALLER, M. D. 2d edition, 12mo., cloth, 424 pages. The Clinic Publishing Co., Chicago, 1904.

**TEXT-BOOK OF ALKALOIDAL THERAPEUTICS.** By W. F. WAUGH, M. D., and W. C. ABBOTT, M. D., with the collaboration of E. M. EPSTEIN, M. D. 8vo., cloth, 405 pp. with appendix 22 pp. interleaved. The Clinic Publishing Co., Chicago, 1904.

*Books received will be noted in this column as soon as may be after their receipt.*

*Those which will be interesting to our readers will be reviewed as opportunity and space permit.*

*Publishers will confer a favor by marking the prices of books plainly upon the title page.*

# THE JOURNAL

OF THE

**Medical Society of New Jersey.****FEBRUARY, 1905.**

*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

## ILLUMINATING GAS POISONING.

The increasing prevalence of cases of illness and death from the inhalation of illuminating gas makes this condition a matter of concern to every physician.

Gilman Thompson (*Medical Record*, July 9, 1904), takes up the study of these cases and reaches some interesting conclusions. He calls attention to the dearth of medical literature upon the subject and asserts that probably 2,000 cases of gas poisoning occur in New York City annually.

The recent asphyxiation of four men in one room and the death of a young woman and her male companion from escaping gas in Newark, were startling examples of the prevalence of this preventable means of sickness and death.

Thompson presents a study of 90 cases, many of which he had personally observed. As is well known the principal toxic agent in illuminating gas is carbon monoxide which attaches itself after inhalation to the erythrocytes and inhibits their oxygen carrying properties.

In addition to this phenomenon there is decided leucocytosis. In 29 cases in which a blood count was made, it was well marked in all but two. In 18 of these the leucocytosis was over 18,000 per c. c. Amongst adults the highest counts in the non-fatal cases were 44,000, 32,000 and 31,000. In a mild case of an infant of four months the count reached 52,000; leucocytosis however,

is relatively high in infancy. In every fatal case in which a count was made, it exceeded 18,000; the two highest being each 50,000. It reaches its maximum usually in 24 hours, sometimes not before 48 hours after the poisoning.

The urea and chloride percentage of the blood was also found increased in four and five cases, respectively.

The temperature of the body is elevated in almost all of the unconscious cases. The fever lasting for one day to a week or more. The temperature does not, however, afford a definite index of the severity of the case. A low temperature may be present with severe coma and a high one with normal consciousness. In eight cases a preliminary fall was noted. In one case the temperature on admission to the hospital was 96 degrees, and the respirations, 40. In convalescence there was a sub-normal temperature in about one-third of the cases observed by Thompson.

The pulse is greatly accelerated and usually out of all proportion to the temperature and respiration. It is seldom below 120, frequently reaches 140 during the coma. The pulse beat is usually, but not invariably, much weakened, although it remains regular. The respiration is accelerated irrespective of the condition of the lungs. It averages about 30. In twelve cases it reached 36, although physical examination of the chest was negative. The breathing is apt to be labored or jerky, and in severe coma may be of the Cheyne-Stokes variety.

Artificial respiration was maintained for a long time in a number of the cases with a decidedly remedial effect.

Digestive disturbances were observed, but were not severe nor characteristic. Constipation is the rule; vomiting sometimes occurs, more especially in mild cases or during convalescence from the coma.

Several patients perspired excessively. The urine showed no special peculiarities. The pupils were so variable that nothing typical could be asserted in regard to them. The nervous symptoms were varied and in



some cases long continued. Coma, generally profound, was nearly always present when the case was first seen.

The only treatment which was found available was phlebotomy followed by intra-venous infusion of normal salt solution. This should be performed in every catamorse case having a vigorous pulse. The infusion alone should always be done in unconscious cases in which the pulse is too feeble to justify phlebotomy. From 15 to 18 ounces of blood should be drawn and at least 1,500 c. c. of normal salt solution should be infused. The rationale of this therapy is as yet conjectural. Of its efficacy there can be no doubt, judging from the cases cited.

Of the 90 cases, 17 or 18.8 per cent. were fatal, although the nervous and other symptoms were often persistent and hard to control.

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### MEDICAL INSPECTION OF SCHOOLS.

"What is the matter with modern education? smatter." As Doctor Tomlinson has well said in his paper published in another column "the attempt to do too much in too short a time is each year claiming more victims." However, we will not now animadvert upon the short-comings of our school system from the intellectual side. These are apparent enough, but are not so vitally important to us as the present inadequate and perfunctory efforts to remedy the evils of cramming, bad hygiene and neglect of the bodies of our children when they need the most intelligent and solicitous care.

The responsibility for the neurasthenia, dyspepsia and mental instability which so frequently follow a course in our public schools is in great part at least to be laid at the door of the medical profession. Doctors are not sufficiently alive to the hygienic sins which are constantly committed in nearly every school. If they were, much could be done toward their prevention. If we had proper ventilation in our school rooms, and no over crowding was permitted; if the children were all made to take a bath before

coming to school, only a part of what is needed would be accomplished. We must prevent all the injurious influences, but that is not all; we must insist on physical development.

In our opinion, modern school life begins at too early a period. A child who has played in the sunlight and chased the butterflies over the meadows or coasted, skated and snowballed during most of his daylight until he is eight years old will have a better and sounder education when he is fourteen than the average graduate of the grammar school now has.

It is not that our children work too hard. We believe that most of them never really learn to apply their minds thoroughly and effectively. Their intellects, like their bodies, are ill-developed, because they had been subjected to a process called a "show process" of education, and have thoroughly learned nothing. A smattering of a variety of more or less useful studies is not an education. If our boys knew how "to ride a horse, to bend a bow, and to speak the truth," what a different type of American manhood we should find.

It seems to us that by devoting themselves to materia medica and curative medicine, and neglecting physical education and hygiene, doctors are like cobblers, who do nothing toward the production of what is good and useful, but only strive to patch up broken down machinery.

How much better, more noble and more satisfying a rôle we would play, if, by inculcating an enforcement of the plain laws of health and development we could insure the production of human machines that would not require such constant patching.

We must reform the public schools, and not only that, we must meet the universal cry from the intelligent parents for guidance in rearing vigorous and wholesome offspring. If we do not play our part efficiently others will do it in our place and we shall receive the condemnation which is inevitable for all who having been plainly told their duty deliberately neglect it.

### SPITTING IN TROLLEY CARS.

The Newark Board of Health has enjoyed an interview with Colonel Hine, of the Public Service Corporation, in regard to the utter disregard of the ordinance of the former, forbidding spitting upon the floors of the trolley cars, and the indifference of conductors to the enforcement of this salutary provision.

The colonel, who seems to be a past master in repartee, but not fully alive to the hygienic value of the measure under discussion, escaped after having given vent to the usual glittering generalities. A suggestion was offered, that uniformed inspectors of the Board of Health be allowed to ride free on the cars like firemen and police officers. Whether these functionaries were intended to overawe the spitters by their imposing uniform and hygienic demeanor, and thus prevent the defilement of the floor and the disregard of the edict of the Health Board, or whether they were to be present in a punitive capacity, prepared to apprehend the offenders and hail them to justice, is not clear from the newspaper account of the s $\acute{e}$ ance.

We are disposed to unite with the colonel in enquiring in a n $\acute{a}$ ive fashion how many of these uniformed inspectors there may be.

Does the Health Board intend to provide one for every trolley car? This seems like rather a large number of officials for the tax payers to support. But a small force will be entirely inadequate to control the situation.

When we have ridden in these cars recently they have been so crowded that one could not spit unless he spat upon his neighbor. There was no chance to defile the floor. And this leads to the enquiry whether spitting upon one's neighbor is an infraction of the health ordinance merely, or whether it is also an assault.

It seems to us that the assumed right of the generous and whole-souled trolley company to run one-half of the proper and necessary number of cars and to take twice as many persons in each car as it was intended

to hold and to allow the passengers to expectorate freely in every direction should not lightly be called in question.

There was at one time an opinion, never, perhaps, amounting to a belief, that the public had some voice in the matter of the kind and extent of accommodation which the trolley company was bound to provide in return for franchises conveying an enormously valuable monopoly. But this is about as fatuous as the assumption that the ordinances of the Newark Health Board are meant to be obeyed by the trolley company's employees.

We notice now, that the signs prohibiting spitting have been posted in such a manner that they can scarcely be read. This serves the double purpose of not annoying the spitters and saving some space for advertising which may be worth a few dollars.

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### "SOCIETY FOR RELIEF OF THE WIDOWS AND ORPHANS OF MEDICAL MEN OF NEW JERSEY."

The announcement of the death of Dr. Byron Cook Pennington, of Atlantic City, will, no doubt, startle many of our readers, some of whom will remember him apparently in good health and spirits, working with indefatigable energy on the committee of arrangements at the meeting of the American Medical Association, at Atlantic City, last June.

Cut off in the prime of life and in the height of his usefulness, his loss must be keenly felt. However, such a fate may be awaiting any of us, and should be, so far as lies in one's power, provided against. Not only should one think of those who are dependent upon himself, he should consider the helpless ones that any professional brother may leave behind. Everyone, but especially every physician is, to a great extent, his brother's keeper, whether he explicitly acknowledges the obligation or not.

In no way can more sensible, more efficient and more satisfactory aid be offered to the family of a deceased comrade than by



building up and extending the usefulness of the "Society for Relief of Widows and Orphans of Medical Men of New Jersey."

The immediate payment of the death benefit to the widow has frequently been the only money which she could get hold of in her dire necessity. And for that reason alone the society ought to be sustained and its usefulness extended. There was, however, an ulterior design in the minds of the founders of the society, viz: the support of the widow and education of the orphans of a deceased member. To accomplish this end, a permanent fund has been established and now amounts to over \$5,000; when it shall reach the sum of \$10,000, the interest from it may be used for the purposes mentioned.

The society now has over 280 members. If each member will pledge himself to bring in at least one new member in 1905, the death benefit will be nearly \$500.00 and the permanent fund will soon reach the point where the interest will become available to help some persons sorely needing help.

### A GREAT TRIP.

Our indefatigable friend, Dr. Wiggin, sends us a communication, published in our correspondence column, which reads like a projected tour in fairyland.

That all this wonderful scenery can be seen and enjoyed in so comfortable a manner in thirty-three days, at an outlay of a little over \$300 seems almost incredible.

But we know Dr. Wiggin's faculty for organizing and carrying out such expeditions from past experience, and therefore do not hesitate to recommend any of our readers, who can possibly arrange their affairs so that they can take this trip, to close with the offer at once.

The JOURNAL will be pleased to receive any subscriptions and to forward them to Dr. Wiggin, and hopes that the Medical Society of New Jersey will be well represented in his party.

Dr. Henry W. Elmer, of Bridgeton, sailed January 12 for Port Antonio, Jamaica.

Dr. Emery Marvel, Atlantic City, had a septic wound of the finger from the puncture of a needle while operating, but is now rapidly recovering.

### MARRIED.

A. Arling Heil, M. D., and Miss Margaret V. Cole, the only daughter of Mr. and Mrs. George Cole, of Milford, were recently married at the home of the bride.

### OBITUARY.

Lyman Leavitt, M. D., died at Trenton, December 29, 1904, of pneumonia. He was 73 years of age and graduated in medicine at the Pennsylvania Medical College in 1857. He was a surgeon in the civil war and was attached to the famous 71st regiment, New York Volunteers. He was a member of the New Jersey State Legislature in 1887 and belonged to the Mercer County Medical Society.

One of his sons, Dr. Charles B. Leavitt, died four years ago. Another son, N. D. Leavitt, of Trenton, survives him.

John Greenbank, M. D., a retired physician, died in Asbury Park, December 29th, 1904. He was 75 years of age and retired from practice fifteen years ago.

Samuel Hemingway, M. D., died suddenly of disease of the heart on December 19, at his home in Newark, N. J. He was born in 1854, and practiced for a number of years in New York and Newark, retiring some ten years ago.

Joseph D. Tantum, M. D., of Trenton, N. J., died at the German Hospital, Philadelphia, on December 18, at the age of forty-eight years. He was graduated from the Medical Department of the University of Pennsylvania in 1878.

Henry Clay Clark, M. D., died at Woodbury, N. J., on December 27, at the age of seventy-four years. He was graduated from the Medical Department of the University of Pennsylvania in the class of 1853. He was assistant surgeon to the Second Regiment, New Jersey Volunteers, during the Civil War, and was taken prisoner at the second battle of Bull Run.

Byron C. Pennington, M. D., aged 47, one of the best known physicians of Atlantic City, died from uraemia Jan. 1, after a long illness. A trip to the Bermudas in the early winter failed to restore his health. Dr. Pennington was one of the vice-presidents of the American Medical Association, president of the Atlantic County Medical Society, and a member of various medical organizations. The high esteem in which he was held by his fellow physicians of Atlantic City was attested by the fact that on October 17 they presented to him a handsome silver loving-cup before his departure for the Bermudas.

Dr. Lewis S. Pilcher, of Brooklyn, will deliver an address entitled "The Present Status of the Operative Treatment of Urinary Obstruction from Enlarged Prostate" before the Pierson Library Association, at their rooms in the Stickler Memorial, corner Essex avenue and Main street, Orange, on Tuesday, February 14th, 1905, at 8.15 P. M. The profession are cordially invited.

Dr. Leslie L. Hand, Millville, is seriously ill with diphtheria contracted from repeated exposures to the infection in his practice.

The annual meeting of the Board of Health of Atlantic City was held January 12, 1905, and officers for the coming year were elected as follows: J. R. Fleming, M. D., President; M. L. Somers, M. D., Vice-President; Edward Guion, M. D., Secretary.

At the annual meeting of the Orange Mountain Medical Society, January 20th, Dr. Sidney A. Twinch, of Newark, read a paper on "The Diagnosis of Bone and Joint Diseases." Dr. Fitch, the retiring president, entertained the Society. The following officers were elected for the ensuing year: President, Dr. Richard C. Newton; vice-president, Dr. David E. English; treasurer, Dr. J. Minor Maghee; secretary, Dr. Richard D. Freeman; reporter, Dr. Henry A. Pulsford; executive committee, the above, and Dr. George A. Van Wagenen, Dr. Arthur W. Bingham, censors, Dr. Thomas S. P. Fitch, Dr. Wellington Campbell, Dr. William H. Van Gieson.

New York, Jan. 20.—President Woodrow Wilson, of Princeton, who was operated on in the Presbyterian Hospital several weeks ago, left the hospital yesterday, cured. Dr. Andrew J. McCosh, son of a former president of Princeton, performed the operation and had charge of Dr. Wilson, while he was in the hospital.

The annual banquet of the Practitioners' Society of the Oranges will be held next month. The annual meeting of the society was held Thursday night, when Dr. Francis B. Lane, of East Orange, was elected president; Dr. D. Warren Poor, of Orange, vice-president, and Dr. Edgar Calvin Seibert, of Orange, secretary. An executive committee consisting of Dr. H. A. Pulsford, of South Orange, and Drs. Stephen G. Lee and Palmer A. Potter, of East Orange, was named. The retiring president, Dr. Thomas N. Gray, read a paper on "The Relation of Medical Societies to Sanitary Matters."

A loving cup was presented to Dr. Alonzo Pettit, of Elizabeth, at a banquet held in his honor at the Hotel Astor, New York City, on January 19th, by the staff of the Elizabeth General Hospital and Dispensary. Dr. Pettit was one of the founders of this institution 25 years ago, and has been its president. He now retires on account of ill health and becomes consulting physician and surgeon.

The Board of Health of Paterson, N. J., has determined to take up the question of declaring tuberculosis a notifiable disease and of providing for the isolation and care of persons suffering from this affection. A special meeting will be called for the consideration of this matter.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.  
 Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D., 42 Church Street, Montclair, N. J.  
 The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.  
 Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.  
 The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the authors of papers.  
 It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.  
 Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.  
 Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.

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## RECENT PROGRESS IN MEDICINE AND THERAPEUTICS.\*

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Of the advances in medicine during the past year, those along the lines of infectious and parasitic diseases, stand out most prominently, and it is with pardonable pride that we can look upon the work of the American profession in these researches. Probably next to these in importance, and certainly equal in interest, are the investigations of the bodily metabolism, which, while yet practically in their infancy, are highly suggestive of the depth and importance of the work.

That which is attracting the most attention, however, is the application of the X-rays, as well as the newly discovered element, radium, as therapeutic measures. With the former, much has been done, and results obtained which place it upon a fairly firm basis. But of the latter, it is as yet too early to speak, except that it promises to be of great value in the treatment of certain lesions of the skin, and in malignant processes. Indeed experiments have been made in which it was administered internally in chronic affections of the gastro-intestinal tract.

Turning to the infectious diseases, typhoid fever, while it has been studied and

assailed from all sides by the profession, still presents many and varied phases which court our interest in the highest degree, and offer a vast field for research. Concerning this infection, many points have been discussed during the year. Of the interesting complications, Memmi (1) reports the case of a woman, age thirty-six, who had gall stone colic some months after an attack of enteric fever. She soon developed a pneumonia of the right lower lobe, having all the classic signs of this disease. Examination of the blood bacteriologically, and of fluid obtained by puncturing the lung, showed characteristic typhoid bacilli. In this instance the author believes that he demonstrated the absence of pneumococci and thinks that in this case, at least, he showed that the bacilli of Eberth caused the pneumonic process. In the diagnosis of typhoid by means of the Widal reaction, a new method has been suggested in which chloroform cultures of the bacilli are used, thus obviating entirely the necessity of consuming twenty to twenty-four hours in growing the germs on an agar medium.

Para-typhoid or para-colon fever, which has been rather carefully studied of late, has attracted no little attention, and in discussing this infection, Johnson (2) reports four cases, and reviews the literature of all previously reported cases. In two of his cases the para-colon bacilli were isolated in pure culture, from the blood, and in two the diagnosis was made by the agglutination test. The general appearance of all the cases

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was that of typhoid with varying degrees of severity. The pulse was slow and irregular and sometimes dicrotic. Rose spots were present in eighteen cases. The spleen was palpable in fifteen cases, and enlarged to percussion in three cases. Epistaxis was present in four cases, vomiting in two. There was diarrhoea in ten cases. The blood showed no leukocytosis. Albumen and casts were found in the urine in nine cases. The disease is usually mild, but may be severe and terminate in death.

Probably that disease which merits our keenest consideration, and is of as much if not more importance than any of the infectious processes, is tuberculosis. Its etiology, and pathological lesions are well known to us all, but it is the prophylaxis and cure of this affection which are of paramount importance.

The founding of the Phipps Institute in Philadelphia, for the study and treatment of the disease, marks a milestone in the progress of the study of this infection, and it will be with no little interest that the profession, and the public at large will await the findings of those connected with it.

In speaking of tuberculosis, M. P. Ravenel (3) discusses the intercommunicability of human and bovine tuberculosis. He has proven, by one of his experiments, that it can be transmitted from human beings to cows, and reports the case of a definite primary lesion in a child from whose mesenteric glands a culture was obtained which produced tuberculosis in two calves and a cow. Koch, on the other hand, however, flatly insists that human tuberculosis cannot be transmitted to cattle. Ravenel's views support those of Von Behring on the subject, who insists that tuberculosis in children is in large part due to infection from milk. The prevention of tuberculosis has for some years past, occupied much of the attention of the profession and laity, and in his recent address before the Phipps Institute in Philadelphia, Biggs of New York ably deals with the administrative control of this infection and shows conclusively that no preventive measures, against any form of the disease, can be efficient without compulsory notification and registration. Such measures have been combated on several grounds, with more or less force, namely, breach of professional confidence, and increasing the hardships of those already unfortunate individuals. In answer to this Dr. Biggs replies that New York, for some years past, has enjoyed the distinction of

being the only city in the world that demands compulsory notification of all cases of tuberculous disease, and, with the enforcement of this law, there has been a steady decrease in the death rate of tuberculosis, exceeding that of any other city in the world. As he points out, we are naturally very jealous of any interference with individual rights, but we must admit that, under certain circumstances, the safety of the community must outweigh the rights of the individual. As to whether such an administrative campaign, as has been outlined, is calculated to effect the purpose aimed at, the experience of the last few years in New York speaks loudly in the affirmative. Tact, however, is necessary to bring about such changes. Education, therefore, should always precede restrictive action in matters in which it seems necessary to infringe upon individual rights for the general good.

Of other infectious processes, the investigations of Bertelsmann (4) in the bacteriology of the early stages of sepsis, have been both interesting and conclusive. Of two hundred and twenty cases, forty-eight showed bacteria in the circulating blood. This is an unusually large number, since these cases include not only those suspected of general sepsis, but also all cases of local pyogenic infection. In osteo-myelitis and cellulitis large quantities of bacteria were found in the blood. Surgical measures, however, applied to the primary focus, caused the bacteria to disappear rapidly. The results of these investigations proved that a staphylococcus infection is graver than that with the streptococcus. A conclusion which does not however concur with the views of many other authors.

What has attracted as much attention as any one thing in medicine, during the past year, is the work of various investigators in protozoan pathology. Close upon the work of Gaylord and the New York State Board of Health Cancer Laboratory urging as the most probable cause of cancer certain bodies resembling protozoa, comes the announcement of Councilman and his colleagues, in Boston, concerning the protozoan etiology of variola and vaccinia; and also that by Mallory of certain structures in the skin in scarlet fever, which he considers probably protozoan, and to which he is inclined to give etiologic importance. Another important step, is that of Novy and McNeal, who have succeeded in growing the tympanosoma, that peculiar organism now thought to be the cause of the so-called "sleeping

sickness." It is difficult to decide how much importance can be attached to the numerous reports of discoveries among this group of animal forms. The nature and life of the protozoa are such as to make them much less satisfactory subjects of consideration than bacteria. Because of their inability to grow on culture media, with a few exceptions, it is impossible to carry out the requirements of Koch's law. On account of their delicate structure, variability and peculiarities in staining, it is difficult or impossible to fulfill even the first step of the law, namely, that the suspected organism shall be found in all, or nearly all, cases of the disease. And so far as the experiments have been carried out, they are in all probability more limited as to the media in which they can grow than are the bacteria.

Among diseases of metabolism, diabetes mellitus has occupied a prominent place in the literature during the past year. L. Schwartz (8) discusses leucosuria, particularly referring to the excretion of levulose in diabetic glycosuria. In nineteen cases of diabetes he proved six instances of a combination of leucosuria and glycosuria. There seemed to be no definite relation between the food and the amount of levulose excreted, except that, in a number of instances, it could be determined that administering levulose increased the amount of this substance excreted. The author therefore believes that diabetes, with a tendency to leucosuria, should receive little levulose in the food, and that previous teachings concerning this point should be modified. As to the pathologic findings in diabetes, Steele (9) reports a case of a man of seventy-two. On autopsy there were found a diminution in the number of the Islands of Langerhans, an invasion of certain portion of the islands by fibrous tissue, and some compression and degeneration of the cells. The case was one of those belonging to the type of intestinal pancreatitis with secondary and late involvement of the Islands of Langerhans. Such findings would suggest that this form of pancreatitis may be associated with diabetes quite as typical as that which occurs in the form that Weichselbaum and Stangel attribute to a specific cause and believe to occur earlier and be more severe.

The present status of affections of the gall bladder and bile ducts is such that it is largely the province of the surgeon to deal with these conditions. However, I may, without fear of trespassing on the ground of others, perhaps say a few words from the stand-

point of the medical man, who, as a rule, is the first to see such conditions.

Brewer (17) discusses in detail the differential diagnosis of diseases of the gall bladder and ducts and considers at some length the three chief symptoms, viz., pain, tumor and jaundice. If the pain radiates upward and backward toward the shoulders and if there be an area of tenderness under the free border of the ribs, the diagnosis is probable. The addition of a tender and palpable tumor in the gall bladder region, with moderate spasm of the rectus muscle, strongly points to cholecystitis. The appearance of jaundice aids materially in the diagnosis, and when found in conjunction with the three points mentioned, almost conclusively points to this condition. A review of the literature seems to show that affections of the gall bladder and bile ducts are certainly less frequent in this part of the country than in other localities, for example the West. Whether such a discrepancy is due to the atmospheric conditions, or differences in food and water, I am unable to state. It is a point, however, that will bear some investigation in studying the etiology of this affection. In speaking of dysentery, L. Rosenthal has investigated eighty-five cases of this affection and found the bacillus of Shiga present in each instance. The blood and urine were in each case sterile. These investigations bear out the findings of a number of other observers; all of whom conclude that this bacillus is the cause of epidemic dysentery.

In the healing art, although nothing startling has been brought forth the past year, we have on the whole made real progress in the application of drugs as remedial agents, which in itself is satisfactory. An important feature in the work of the American Therapeutic Society, at its last meeting, was the symposium on the "Teaching of Therapeutics." The general conclusions were that the following methods should be combined in suitable time allotment.

*First.* A practical acquaintance with the various remedial, physical measures and remedies not less physiologic and methods of preparing the latter. This should be acquired early in the student's career.

*Second.* Actual knowledge of the action of agencies and remedies acquired by personal experiments under the teacher's eye.

*Third.* The application of these agencies and remedies, the actuality of their effects, for good or evil, having been fixed in the



student's mind in the treatment of diseases and symptoms, under proper supervision.

*Fourth.* The accurate direction for the exhibition in strict pharmacopeal nomenclature of remedies and the scientific use of physical agencies must be so thoroughly comprehended by the student that he can not only intelligently apply them, but give valid reasons for his statement.

Of the therapeutic agents, deserving special attention, I desire to call attention among the first to adrenalin chlorid.

*Adrenalin.* While a comparatively new production, the value of this substance is now thoroughly understood, and the conditions in which it may be used with benefit are certainly increasing. Crile has demonstrated its usefulness in shock. He employs a strength of one to twenty-five thousand in a solution of normal salt. It is particularly indicated in conditions associated with vasomotor collapse. As a hemostatic, its position is assured. Large doses, twenty-five minims of a one to one thousand solution in ninety minims of water, have been given in haematemesis. In the upper air passages its efficacy has been thoroughly proved. Injections of a solution of adrenalin, the strength varying from one to twenty thousand to one to one thousand, have proved of value in chronic posterior urethritis. It has been found that strictures which are so small as to prevent the passage of even a filiform bougie would easily allow a small instrument to be passed five or ten minutes after the installation of the solution. The addition of chloretone seems to increase the anaesthetic effect, and a solution of adrenalin, chloretone and normal salt solution can be kept for an indefinite time, if protected from the light and sterilized by heat before using.

*Acetozone.* Since its first introduction into medicine the employment of this drug has steadily increased, and it is the opinion of those who have used it the most extensively that it possesses marked germicidal activity. A solution of twelve to fifteen grains in one-half gallon of water may be employed. Such a strength equals one to one thousand bichlorid of mercury, is easily administered and entirely innocuous. It is rapidly absorbed, said to stimulate the urinary secretions, and is thrown off as hippuric acid. Numerous observers report that in their hands it prevents tympanities, checks diarrhoea, decreases the fetor of the stools, and greatly diminishes the percentage of complications. The drug has been

successfully used in the treatment of chancre, abscess of the foot, and in various other like conditions. With reference to its action as an intestinal antiseptic in typhoid fever the views expressed by Hobart A. Hare on the subject are worth repeating. "In the first place the dose of any intestinal antiseptic is inadequate when the length of the intestine and the number of germs to be combated are considered, also, that by the time typhoid fever is diagnosed the germs have passed beneath the mucous membrane and are no longer to be reached by germicides." As contrary to these views, experiments have shown that acetozone, when administered to rabbits, causes sterile stools. It follows therefore that acetozone and like drugs may inhibit the growth of intestinal germs even if these micro-organisms are not killed.

*Argyrol* (Silver Viteline). Said to contain thirty per cent. of metallic silver, and to possess the power of penetrating deeply into the submucosa, is a powerful germicide. It allays inflammatory conditions and is absolutely non-irritating. During the past year the drug has been extensively used in the treatment of acute and chronic inflammations of the urinary, ocular and nasal mucous-membranes. In the urethra, it may be used in the strength of from two to twenty-five per cent. A ten per cent. solution is useful in the treatment of catarrhal conditions of the conjunctiva, and in purulent conjunctivitis, a solution as strong as twenty-five per cent. may be used. Acute and chronic conditions of the nose, nasopharynx and larynx have been markedly benefited by its application. Kevin (10) reports twenty-five hundred cases of acute and chronic gonorrhoea treated with argyrol and speaks highly of the efficiency of the drug. The strength of the solution varied from two to twenty per cent. It would seem from the results obtained by various observers that this remedy is now apparently established on a firm basis.

*Arsenic.* Most favorable results have been reported from the sub-cutaneous injection of a solution of sodium arsenite in the following affections: sarcomata of the skin, psoriasis, lichen rubra, dermatitis herpetiformis and eczema.

*Aspirin.* Has been employed as a substitute for the salicylates. It is almost insoluble in water and has little taste. Because of the former quality it does not irritate the stomach or produce nausea. When given in large doses it may produce the symptoms of

salicylism, as it may produce symptoms of cardiac weakness, or collapse, especially in depressing affections. The condition of the heart therefore should be carefully noted before and during its administration.

*Cerebrin.* The reports on the use of cerebrin in epilepsy are apparently most satisfactory. As a preliminary measure, any of the bromine derivatives should be withdrawn and no restriction made as to diet. The drug is to be administered in the form of tablets (two grains daily) or subcutaneously, two to seven injections being used weekly. If the attacks become weaker and of less frequency only, the dose is to be increased. A series of fifteen cases reported by Lion, which he divides into four groups, viz., as follows: The first group, consisting of two cases, was relieved from the attack from the first day. In the second group, consisting of six cases, the attacks disappeared almost completely. In the third class, of seven cases, there was considerable decrease in the number, as well as lessening of the attacks. In the fourth class, the attacks increased in number, but changed in character, the severe convulsions being converted into petit mal, or slight attacks of dizziness.

*Chloretone.* In post-anaesthetic vomiting the administration of ten to fifteen grains of chloretone, two hours before operation, has been followed by good results. In a series of forty-eight cases, in which the drug was used, vomiting occurred in but four instances.

*Collargol.* The intravenous injection of collargol in the treatment of septic conditions was originally introduced by Crede. One case reported was that of a woman whose condition, three weeks after her delivery, became so desperate that collargol, eight c. c. of a one per cent. solution, was injected into a vein; at the end of thirty-six hours she was much improved and, by the end of twelve days, she was, with the exception of a venous thrombus in the left leg, apparently cured.

*Carbolic Acid.* Attention has been called to the use of pure carbolic acid in the treatment of small pox from the striking results obtained with the drug in pustular eruptions of the skin. In four cases excellent results were obtained by using the pure acid, applying it by means of a camel's hair brush to the face and head, being the first areas selected. From this limited experience, Duhr (12) concludes that the carbolic acid used in this way will arrest the eruption in the papular,

vesicular or pustular stage. The danger from local gangrene and from absorption must be considered in such cases.

*The subject of serum-therapy* has developed so rapidly into such a complex affair that it is difficult for those in private practice to attempt to master its many and complex phases. It is, however, only a question of time when these various theories must give way to something more fundamental and be interpreted in terms of chemistry and physics. The recent work of Keys speaks forcibly on this subject and insists upon putting the whole conception on a chemical basis.

*Anti-streptococcus Serum.* Laboratory experiments show that the serum is applicable only for the germ or germs for which it was prepared, and that the serum is directly, or indirectly, germicidal in its action and acts, not like diphtheria antitoxin, by neutralizing the toxins, but by destroying the germs themselves. Sir Dyce Duckworth, (13) in the *British Medical Journal* of May 23, 1903, reported a case of malignant endocarditis successfully treated by rectal injections of anti-streptococcus serum. The reason for administering the drug by the rectum was due to the fact that when given subcutaneously, it produced no effect. Cases of scarlet fever, treated with the serum, have showed a marked fall in temperature, reduction in the frequency of the pulse and respiration and disappearance of the nervous symptoms and cyanosis. Piorkowski, (14) in a review of the various streptococcus sera, believes that those now in use are objectionable for two reasons; first, because of the high dosage required, and second, because the various streptococci differ from each other, so that a serum may be effective for one form of infection and not for another.

*Tetanus Antitoxin.* Under the exhibition of antitoxin the mortality has been reduced from eighty to between forty and fifty per cent. in a general run of cases. In the period of full tetanus, forty-eight hours after infection, the subdural method alone is of any service.

*Antithyroidin.* This remedy is prepared from a serum from the blood of herbivorous animals, from which the thyroid has been removed. The serum injected subcutaneously has been used in Basedow's disease with some success. No untoward symptoms following its use were noted, the goitre became smaller, the circumference of the neck lessened, and the patient slept



better; but the number of pulse beats was not materially lessened. An interesting fact was that an interruption in the treatment caused a return of the symptoms.

As I stated earlier in this paper, probably what has attracted as much, if not more attention than anything else during the past year, and along which lines decided progress has been made, is the work in photo-therapy, radio-activity, and Röntgen-ray therapy.

*X-Rays.* The literature on this subject has been enormous. In the treatment of malignant diseases, the best results have been obtained in rodent ulcers and cutaneous epitheliomata. But in deeper-seated malignant growths the results have been less satisfactory. In sarcomata, the use of the X-rays have not proved very gratifying. Park's observations showed that X-rays and ultra-violet rays both afford methods of treatment for extremely new growths of limited areas and of superficial character. They not only cause no pain, but tend to relieve it. They are adapted to cases which cannot be submitted to other treatment. There is a suppression of odor, and it is possible to avoid burns and dermititis; and as a supplementary treatment after operation the rays have been extensively used to prevent any recurrence. In lupus, the results of X-ray treatment have been almost as favorable as in rodent ulcer. Radio-therapy is the latest addition to this branch of science, and at present seems to be uppermost in the minds of those interested in that line of work. What will be the results of those who are doing most with this newly found element, the future only can show; but from the conclusions already reached, it bids fair to take its place in the front rank of allied agents.

*Radium,* (15) a member of the barium group, discovered by Mme. Curie, possesses enormous power of discharge; i. e. withdrawing electricity from an electro-scope. The atomic weight is two hundred and forty to two hundred and fifty. A radium salt is always hotter than its surroundings, which implies that it is constantly losing energy, but without any sensible loss in weight. It has been suggested that radium possesses the power of intercepting and making manifest certain invisible and hitherto undetected rays of the sun, and that the wonderful heat phenomena displayed by the new metal, are derived from the sun, the radium playing the same part to the sun that the fluoroscope does to the X-ray. The new element emanates three different kinds of rays, one which travels at the rate

of one hundred thousand miles per second and has already been recognized as likely to have a useful place in the treatment of certain diseases, particularly those that lie near the surface of the body. Small animals, exposed to its action for a few hours, perish, if not during its application, within a measurable time thereafter.

Plimmer, (16) of the Lister Institute, discusses the experiments carried out by him with radium bromid, on seventeen cases of cancer at the London Cancer Hospital. The amount of radium used was thirty milligrams and the cases experimented on consisted entirely of carcinoma, many of them being in an advanced condition. The exposures varied from five to forty-five minutes, the capsules containing the radium being placed directly on the growth. After a month the cases were examined and the effects in each instance were negative as to either the size or appearance of the nodules. An exposure of the skin for ten minutes was sufficient to produce blistering and under the scabs there was found a slowly-healing granular surface. The radium had apparently no effect in regard to either causing or relieving pain and the irritation following the blisters was slight.

In closing Mr. Plimmer says, "It appears as if the emanation from radium can only act on young and rapidly growing cells and that older ones, especially if surrounded by a fibrous capsule, are less easily affected, and if there be an excess of fibrous tissue they are not affected at all."

In conclusion I wish to state that it is with much regret that I have been unable to touch upon many important subjects which, though interesting and well worthy of our consideration, lack of time will not permit of their review and discussion. That the year past has been a fruitful one a perusal of the general medical literature which, while voluminous, and in many instances confusing, will answer in the affirmative.

I cannot close without expressing my appreciation to Dr. S. Hamil Horne for kind and valuable services rendered in reviewing much of the year's literature, and to others for lending assistance in gathering the material for this paper.

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## PROGRESS IN STATE MEDICINE AND HYGIENE.\*

BY EDWARD E. WORL, M. D.,  
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In a paper of this kind there must be a process of selection. The advance of medicine is such that only a few topics can be advantageously touched upon. Our own State interests us most and the interesting question to-day is an old topic—the "Jersey Mosquito." The Legislative act, called the "Duffield Bill," defines as a nuisance waters in which mosquito larvae are found and it gives powers to local Boards of Health to abate such nuisances. This is a great advance. It gives power to act at once. This movement, when it began, met with great ridicule. The mosquito had been with us always. He was not to be so easily gotten rid of. To-day the action has assumed a practical character. We have to study 33 varieties of mosquitoes of different habits. All of these lessen our comfort and decrease the value of property and *some* are carriers of disease. All mosquitoes breed in stagnant waters and take from one to three weeks to pass from eggs to winged mosquitoes. The malarial mosquitoes (the anopheles) are the most dangerous, but as a rule do not travel far from their breeding places. We recognize him by his habit of resting with his body at an angle to the wall, the body and beak being in a straight line. Surely we must exterminate him, for this is the best preventive medicine. We can find the anopheles also in fresh running water. Last year we ditched on the Newark meadows 30 acres. The trenches were 6 inches wide, straight edged, and 18 inches deep, and 50 feet apart. This practically cleared one of our worst sections of mos-

quitoes and drained it too. This year we have \$1,000 to work with and a good prospect of \$4,000 to come. This means that we can drain and clear the Newark meadows of all breeding spots for mosquitoes. Monmouth Beach has been ditched to the extent of 150,000 feet and the Sandy Hook district has been fairly well cleared. This is only a part of the battle. We need co-operation all over the State and the help of New York to clear Staten Island. We can breed the mosquito in any stagnant water and a sunken pool may destroy the peace of an entire village. I consider that the practicability of the scheme has been sufficiently demonstrated. It rests on us as physicians, always foremost in matters of public welfare, to aid by all means in our power in ridding New Jersey of its reputation as a mosquito breeding State. What malaria can do is well illustrated in the Roman Campagna. Once it was a densely populated district with 22 towns. To-day it is a dreary waste, depopulated and forlorn, with less than one-tenth of its area under cultivation. Even the herdsmen and cattle leave it for the mountains. Defective drainage and stagnant water have produced this change. The modern Italian must imitate his Roman ancestor and drain his ground.

We can use three good arguments in the mosquito crusade:

1. It would be sufficient if it did no more than add to our peace and comfort.
2. It materially enhances the value of property. It seems to me that this appeal to the pocketbook ought to be unanswerable.
3. The destruction of the anopheles means the destruction of malaria.

### Tuberculosis.

Two years ago, I described to you a method of treating tubercular cases; particularly those of a more chronic order. When the symptoms seem to point to a condition of *sepsis* produced by the so-called "*associated bacteria*."

The work of late years seems to point toward the production of a serum which shall arrest progressive cases or produce a condition of immunization in those especially liable. We have to-day some results to offer. There are two of these sera. 1 tubercle serum, 2 sepsis serum. During the past year nearly 5,000 bottles were produced and distributed free to all Newark patients. The nature of the disease is such that we cannot assume positive cures until

\* Read at the 138th Annual Meeting of the Medical Society of New Jersey.



after years have elapsed. So far 300 patients have been treated and have improved. The advantages of the treatment are obvious. It does not interfere with the ordinary and recognized treatment of the profession, but is an added weapon of defense combined with proper feeding and climatic treatment. It should be efficacious in all early cases. But the sepsis serum is capable of far more extended use. In acute septicaemia it can be given every 8 hours. Pneumonia and erysipelas have also been benefited by its use. We have records of a dozen cases of puerperal and post-operative sepsis, where the use of this serum, as often as every two or three hours, has produced results after almost every other plan has proved unsuccessful. One suggestion leads to another. It has been proposed that by infecting the patient prior to operation, we may be able to secure an immunity from infection during the operation. One of the most striking cases occurred in the U. S. Marine Hospital service at Stapleton, Staten Island. This was a case of tuberculosis of the abdominal wall and pelvis. Practically it was inoperable and hopeless. It was treated with the special sera and showed such good results that the patient was enabled to leave the hospital. It would seem to me that we have a possibility of using with good results the sepsis serum in the class of cases known to the profession as "septic scarlet fever" (scarlet fever anginosa or ulcerosa). The ulcerative process begins almost invariably in the tonsil and leads to wide-spread destruction of adjoining parts. The brawny infiltration of the tissues of the neck may be so great as almost to encircle the neck like a collar. There are necrotic patches which often lead to a diagnosis of diphtheria. Here we have the gradual development of a condition of septicaemia. The temperature remains high, the pulse is rapid and feeble, there is exhaustion and great prostration. Toward the end of the second week a measles-like rash appears, confirming the septic nature of the disease. We have here so distinctly to deal with sepsis that some form of sepsis serum should be used; for the prognosis of these cases is bad; and, even where recovery is possible, the convalescence is slow and interrupted by complications.

#### Contagious Diseases.

New Jersey has, in the last two or three years, passed through a season of smallpox which, with our lack of compulsory vaccination, seems periodically due. New Jersey

to-day is not as well educated as Japan on the vaccination question. Heathen Japan has accepted scientific results, where Christian New Jersey has accepted some other so-called sciences—for instance "Christian Science." Whether there is anything in weather conditions which favors the prevalence of contagious diseases, meteorology is not to-day sufficiently advanced to offer us anything more than conjecture. There certainly has been in the past year, a marked prevalence of contagious diseases. Of most interest to us have been diphtheria, measles, German measles and scarlet fever. Diphtheria to-day is a controllable disease with a good prognosis. Under the use of Newark antitoxin our mortality is 7% against the 35% and 40% of olden times. German measles is principally of importance because it is continually confounded with other diseases of a graver type. Scarlet fever, however is of grave import. It is widespread and the nature of its complications makes an early diagnosis important. No disease is more difficult to diagnose for its variability of type is often puzzling and confusing. Bacteriology has not hitherto helped us in studying its etiology and we have to-day to depend on our old clinical methods. And furthermore the use of antiseptics and sera have introduced still more rashes for us to consider. We have, in northern New Jersey, marked variations in this disease. Cases of measles have been confused with scarlet fever and *vice versa*. In the year 1903 in Newark we had 779 cases of scarlet fever and 71 deaths; equal to 9% of the total deaths. In the first four months of 1904 there were 662 cases and 60 deaths; also about 9% of the total mortality. So that the six winter months show two-thirds of all the cases. When we consider the wide range of the mortality in scarlet fever, varying from 3% to 30%, and its multiple complications, it seems to me that we ought to recognize the fact that the modern house is not a fit place to treat contagious diseases in. That, in these large flat-apartment houses, it interferes too much with other families, not so affected. We should, in view of the necessity for a long quarantine, educate our people to the recognition of the fact that all these cases should be treated in fever-hospitals, specially constructed for the disease, and that we should take away from the general public the practical management of the long convalescence, when the personal danger to the patient is small; but the danger of spreading the disease to other peo-

ple is often at a maximum. For people *do not* and many times *will not* recognize the danger.

### OYSTERS AND CLAMS AS VEHICLES FOR THE TRANSMISSION OF TYPHOID FEVER.\*

BY EDWARD GUION, M. D.,  
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*Atlantic City, N. J.*

It is the writer's opinion that oysters and clams may, under certain conditions, become the vehicles for the transmission of typhoid fever. This possibility is not by any means universally admitted. Individuals commercially interested in the shell-fish industry are very naturally prejudiced against accepting circumstantial evidence tending to injure their business.

Hard-headed scientists who want absolute proof of the specific infection of the food in any case followed by indisputable evidence of direct connection between this specific infection and the sickness, alleged to be caused by the eating of the food, have thrown much discredit upon the belief that typhoid fever is really attributable to sewage-polluted shell fish.

But it would seem from the mass of accumulating evidence that the only safe conclusion is that the forces of sickness and death are harbored within the shells of some oysters and clams and that these have been the vehicles for the transmission of typhoid fever.

The following resolution, adopted by the Conference of State and Provincial Boards of Health of North America, held at Baltimore recently, shows that this matter is considered of serious import.

*Resolved*, That in view of the fact that typhoid fever has been frequently traced to the use of oysters, this Conference recommends legislation by the several seaboard States which will prevent the propagation and fattening of oysters in sewage-polluted waters.

The following cases are cited out of a great list available for the purpose. They are of profound interest to us because reported by reliable authority.

The first case known to the writer which attracted widespread attention to the possibility of the transmission of typhoid fever by polluted oysters was that which occurred at

Wesleyan University in 1894, reported by Prof. Conn. The history of this epidemic points so conclusively to the eating of oysters as the cause for the epidemic of typhoid fever that I shall present it in full in this paper. About October 20th several students in the college were taken with a mild form of sickness accompanied by a slight fever. This was not thought of much import at first. The number of cases increased, however, and some of them became more severe, until after about one week, when the diagnosis of typhoid fever was made. For a week and a half following October 20th the cases increased rapidly, and by November 1st, there were over twenty cases of sickness among the students, accompanied by fever, with more or less typhoid symptoms. After November 1st the appearance of new cases declined. This limitation of dates is very important in the subsequent consideration of the epidemic. In all there was a total of twenty-five cases of sickness which were accompanied by fever. Of these twenty-three were pronounced by the physician in charge, typhoid fever.

As soon as it became evident that the disease in the college was typhoid fever a committee was appointed to investigate the trouble and determine the cause of the outbreak.

After eliminating the water supply, milk and all other possible causes, the cases were traced, as this report will show, to the eating of oysters at a banquet held October 12th. The date of this banquet, it will be noticed, is just the proper date to explain the outbreak of typhoid fever on the 20th of October and its disappearance after the fourth week following the banquet (November 10th). Indeed these dates in themselves are almost sufficient to demonstrate the banquet as the source of infection. At this banquet raw oysters were served, among other things. All other articles of food were excluded as a causative factor after a very rigid investigation. The oysters were served on the half shell, as a single course, at the beginning of the banquet. It was therefore quite probable that all persons who attended the banquet ate of them except such as had a special dislike to oysters. Inquiry elicited the information that all but one of the students who were sick had eaten of the oysters, the exception was too ill to give the desired information.

It was learned that at this banquet were quite a number of persons not students at the college, who lived outside the town.

\*Read before the New Jersey Sanitary Association, Lakewood, N. J., December 9th, 1904.



Letters were at once sent to them, and reports returned, showing four cases of genuine typhoid fever and several cases of slight illness (chills, diarrhoea, weakness, etc.). These latter may or may not have had some connection with the infection. Inquiry showed that the oysters in question had been taken from deeper water in Long Island Sound and had been brought into the mouth of the creek and allowed to lie in fresh or brakish water a day or two for fattening before they were sent to the consumers. During this period of fattening the oysters are known to absorb fresh water, swell up and become quite plump. Close to the oyster beds, where this fattening occurs, are the outlets of a number of private sewers. At a distance of a few hundred feet from the beds where the oysters were fattened was an outlet from a private sewer from a house in which were two cases of typhoid fever. When the grounds were surveyed it was further noticed that at the rising tide an eddy was found to be settling along the shore, from the region of the sewer outlets upstream, in the direction of the oyster beds. This condition would plainly make it possible for typhoid contaminations from the sewer to be carried to the oysters.

For the benefit of those who do not understand the term fattening or freshening as applied to oysters, I would state that the salt oyster in its original condition has a disagreeable bitter taste and is thin. To overcome this taste and to make the oyster more presentable, the oysters are put into a float or bed, containing a mixture of salt and fresh water in certain proportions, where they are allowed to remain for 24 to 48 hours. They are then ready for delivery. In a number of cases known to the writer, it is the position of this freshening bed (i. e., close to the outlet of sewage) and the source from which water is obtained, that cause the pollution of originally unpolluted oysters.

According to a report by Dr. H. Timbrell Bulstrode, to the Local Government Board, London, Eng., on November 10th, 1902, there took place at Guildhall, Winchester, a dinner to the ex-Mayor, 134 guests being present. Of these ten persons developed typhoid fever and a number of others developed gastro-enteritis of varying degrees, about 63 in all. Investigation proved that of the 63 persons who became ill, all but two ate raw oysters. Of the cases of typhoid fever, all of the ten ate raw oysters. It was ascertained beyond a doubt

that oysters were the only article on the menu partaken of by all of the persons suffering from typhoid fever. The fishmonger, from whom the oysters were procured by the caterer, stated that he in turn obtained them from an oyster merchant at Emsworth on November 10th, the day of the banquet. These oysters were delivered to the fishmonger's shop in Winchester, "given a drink" of salt water, opened at the shop, delivered to the banquet on their flat shells on a tray, and forthwith spread out by the waiters on the plates, three oysters being placed before each guest. These oysters were imported into England from France, to be laid down or stored in the waters of Emsworth. It was learned that they had come originally from a source other than Emsworth and that they had been stored in the ponds of Emsworth for a few days.

(Mayor's Banquet at Southampton). This banquet was held on the same date as the one at Winchester, (Nov. 10th) 1902, 132 guests being present. Eleven developed typhoid fever, and others gastro-enteritis. In all 55 were taken sick. Fifty-four of this number ate oysters. All of the typhoid fever cases ate oysters. The oysters consumed at this banquet were obtained by the caterer from a firm of local fishmongers who in turn procured them from the same firm at Emsworth as that which supplied the Winchester banquet. Investigation of the oyster supply showed that Emsworth ponds were used mainly for the storing of oysters. Into these ponds the sewage of Emsworth emptied. At about this time, or to be more exact, between October 22 and December 8th, 1902, there were in all nine Emsworth houses (comprising thirteen cases) invaded by typhoid fever, and six of these houses were invaded before November 10th. The slop water of the infected dwellings, which would be apt to contain the washings from bed linen, etc., as also some of the excreta, passed in every instance but one, into the sewer. It may in fact be said, that every house save one, communicated in some measure with the sewers, and that specifically infected material from eight out of the nine houses had opportunity of entering the outfall sewer which discharges near to the oyster ponds.

Dr. W. Wilson, of London, cites three instances which appear sufficiently conclusive. He says, "About ten years ago Mrs. S. requested me to visit one of her daughters whom I found with a high temperature. The next day the son was attacked in the

same way, and a few days later a second daughter. On inquiry it transpired that the family had been staying at Naples. Raw oysters formed part of the menu of their daily dinner. The mother did not partake of them. The eldest daughter ate of them once. Violent vomiting and diarrhoea followed. The three others ate them daily. They all contracted typhoid fever. About the same time another lady requested me to see her daughter. I found her suffering from fever. On inquiry I found that they had been stopping at the same hotel at Naples as Mrs. S. and family, and dining daily with them. The mother had not eaten oysters but the daughter had."

"A party of friends went to the theatre and afterwards supped together. Raw oysters formed part of the repast. Two of them ate of them, and contracted typhoid fever. The others did not and escaped."

Sir William Broadbent, Bart., M. D., makes the following report:

"I saw on November 12th, 1894, a young married lady who had been confined a little more than one month previous to the time of the attack, for which I was consulted. She had made a favorable recovery. The precautions against the communication of disease of any kind were more than usually careful. Milk and water were boiled and the sanitary arrangements of the house were perfect. No other occupant of the house was ill in any way. In the course of her convalescence from the confinement she had eaten raw oysters and in about ten days later was attacked with typhoid fever."

"On December 6th I saw in consultation a young man who three weeks before had had an attack of bronchial catarrh. During this time he partook freely of raw oysters. The sanitary arrangements of the house were faultless. No other member of the household suffered. No other source of the attack of typhoid fever from which he suffered could be traced."

Chantemesse, in *Gazette des Hôpitaux*, No. 64, 1896, alludes to the danger of infection with typhoid fever through oysters. He cites particularly an instance of 14 persons in 6 families, who became infected. The other members of these families who did not eat oysters remained healthy. Eight of the patients had mild symptoms (pain in the stomach, vomiting, diarrhoea, loss of appetite and tympany) for two or three days. Four younger members, who had eaten only a little, had severe symptoms of the same general character with dejections

of dysenteric appearance. Two others of 20 and 21 years respectively had severe cases of typhoid fever and one died. The illness was not one of simple poisoning such as occurs after consumption of ordinary shell fish. Finally the author was able to show by direct experiment that typhoid germs become incorporated in the body of oysters when the latter are placed in infected water.

Dr. Newsholme's annual report of 1894 refers to 53 cases of typhoid fever and states that, after a careful and exhaustive inquiry into the circumstances attending the onset of these 53 cases, he was led to the conclusion that 15 of them were caused by sewage-contaminated oysters, and that 6 cases were ascribable to other contaminated shell fish eaten in an uncooked condition. Of the latter, one was caused by clams, one by cockles and two by mussels, which in each case were eaten raw. Dr. N. adds that at least 40% of the cases of typhoid fever originating in Brighton during 1894 were ascribable to sewage-contaminated shell fish.

C. J. Foot, in a paper on "A Bacteriologic Study of Oysters, with Special Reference to Them as a Source of Typhoid Infection" states, "Oysters were inoculated with typhoid, and the germs proved to live forty-eight hours."

Freytag found that bacilli, typhi-abdominalis would live in concentrated salt solution five months. Giaxa detected them in unsterilized sea water after nine days from the date of infection. In sterilized water after twenty-five days.

From Foote's paper we find that his experiments do not throw very much light on the question of the multiplication of the B. typhi-abdominalis in oysters. They do, however, seem to show that, if multiplication does occur, it takes place within the first two weeks, and that after that there is a progressive decrease in the number of the B. typhi-abdominalis found in oysters, but that they may be found even after thirty days from the date of infection. They further show that the B. typhi-abdominalis not only lives in the juice but penetrates into the stomach and lives there for some time. In fact the B. typhi-abdominalis lives longer in the juice and stomach of the oyster than it does in the water in which the oyster grows.

*Journal of the French Academy of Medicine*, 1896, paper, "The Spread of Disease Through Agency of Oysters," relates cases of typhoid fever caused by oysters, and ex-



periments upon the life of typhoid germs in oysters. The germs lived forty-eight hours.

*Public Health Journal* (England) 1900, gives results of investigations by Drs. Burdoni, Uffredizzi and C. Zenobi. They proved first that the typhoid bacillus would live in sea water for fourteen days, secondly they found *B. coli communis* in oysters.

The writer's opinions have been put into practical operation in his own city. As a member of the Board of Health of Atlantic City he has had opportunities for observation and study which have broadened his views and brought the subject home with a good deal of force. Three years ago there was a small epidemic of typhoid fever there. This affliction was needed to focus public sentiment to the peril of eating sewage-polluted food. The city is in the center of an extensive and productive field of shell fish. Not only are large quantities of oysters and clams consumed locally but the shipments to other places are very large. In 1903 there were 75,500 bushels of oysters consumed in Atlantic City, and 3,820,000 clams. There were also shipped away 20,000 bushels of oysters and 5,240,000 clams. Most of this product was brought in by boat from local waters within a radius of ten miles; 87,000 bushels of oysters and 8,915,000 clams were so obtained. The remainder of the total yearly traffic was shipped in by rail. Sixty per cent. of the oysters and seventy per cent. of the clams are handled in the seven warm months of the year. The original sources of these oysters are unpolluted; 25,000 bushels come from Eagle and Grassy Bays, 14,000 bushels from Absecon and Lakes Bays and 53,000 bushels from Great Bay. Formerly these oysters were freshened or fattened in floats located in the thoroughfares about Atlantic City where sewage is discharged. This practice was determined to be a menace to the health of the community and the local Board of Health prohibited under penalty for violation of the regulation, the laying down of oysters in any waters within the city limits. Of course this caused a storm of protest from those engaged in the industry. But that did not matter. One result of this action was the establishing of public confidence in the purity of Atlantic City oysters. In consequence traffic in this article of food has increased. To-day the dealers are in hearty accord with the action of the Board of Health.

Prof. F. Herbert Snow, of Boston, who is an expert on questions of sewage disposal, is authority for the statement that examina-

tion by him of water (as well as clams and oysters), taken from waters adjacent to the outlet of a sewer, shows the presence of the coli bacillus in large numbers. An examination of water 1,000 feet from the outlet of this sewer, showed over 1,000 blood temp. organisms per c. c. Intestinal organisms, 520. 5,500 ft. away, 380 blood temp. organisms per c. c. 130 intestinal organisms per c. c. 6,000 ft. distant from outlet, 220 blood temp. organisms per c. c., 130 intestinal organisms per c. c. 12,500 ft. distant, 130 b. temp. organisms per c. c., 62 intestinal organisms per c. c. 13,500 ft. distant, 16 b. tempt. organisms per c. c., 7 intestinal organisms per c. c. The water immediately over the outlet contained 1,000,000 blood temp. organisms per c. c. of which nine-tenths were intestinal.

Clearly clams taken from unpolluted sources ought not to be laid down in sewage contaminated waters and legislation calculated to prevent this should be passed. Oysters taken from doubtful sources should be laid down in unpolluted waters for a period of two weeks. It has been found that by this process the oysters purge themselves of all sewage germs and are rendered safe as food for human beings.

In the writer's opinion there is a zone of pollution established by the mere fact of the existence of a populated city upon the banks of a stream or tidal estuary, which makes the laying down of oysters and clams in these waters a pernicious custom, if persisted in, because it renders these articles of food dangerous at times and always suspicious.

The mere wash from streets and yards is in itself polluting. The bacterial contents of water taken from conduits receiving the storm water from roofs, yards, streets, gutters, etc., is not much different from that of home sewage. So it seems reasonable and only safe for the public health authorities to recognize such a state of affairs as a permissible or legal, natural, unpreventable pollution of waters within immediate vicinity of large cities; and in accordance therewith to frame such regulations as shall effectively prohibit the contamination of otherwise pure oysters and clams by their temporary laying down in the doubtful or polluted waters.

The writer, as a remedy, would make the following suggestions: First: Waters within the territory of cities into which sewage is allowed to empty, should be declared unsuitable for the cultivation of oysters or clams, and the beds in such waters should be aban-

done. Second: That oysters and clams taken from safe sources should *not* be laid down for any purpose, in polluted waters. Third: Oysters taken from doubtful sources should be kept for a period of at least two weeks in unpolluted water before being placed on the market.

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### IMMUNITY.\*

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BY HENRY A. PULSFORD, M. D.,  
SOUTH ORANGE, N. J.

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It must be quite obvious to anyone who has given any thought to the matter, that the discovery by Lister and Pasteur of the influence of bacteria in the production of disease was the starting point of two series of scientific investigations, which, though having for a common object the prevention of diseases due to germs, yet differed radically in the means by which they sought to attain that end. These two schools, if we may so call them, far from being antagonistic to one another, must, from the very nature of their work, be mutually supplementary; for the one, in which we may properly consider Lister the pioneer, concerns itself exclusively with the discovery and development of methods for the destruction of pathogenic bacteria, and the prevention of their entrance into the body; while the other, represented rather by Pasteur and his successors, gives its attention to the study of the power of the body to resist the attacks of bacteria, and to the discovery of methods of artificially increasing that power.

As far as practical results are concerned, the progress of the two schools has been very unequal. The work of Lister, so soon utilized in the development of his antiseptic methods in surgery, has experienced a rapid growth and attained in a comparatively short time the practical perfection of the present methods of aseptic surgery, which leave little to be accomplished along these lines. Indeed, it is doubtful if the science of the future can have anything further to teach us in the way of the destruction of bacteria outside of the body, or of the prevention of their access to it.

As far as the work of Pasteur and his followers is concerned, there is quite a different story. Not that there has been any lack of work, but because the enormous amount of work done has been apparently so sterile in practical results. For with the exception

of the discovery of the diphtheria antitoxin, of the comparatively unimportant protective inoculations against rabies and of the antitetanic serum of Tizzoni, physicians have as yet been given no practically valuable methods for increasing in a specific way their patients' powers of resistance to disease.

Nothing could be more unjust, however, than for us practitioners, to estimate the importance of this kind of work by the value of these meagre results, or to take no interest in what is being done along these lines in hundreds of public and private laboratories, both here and abroad, because the results seem to have no immediate value for us in our daily work. We can, on the contrary, I think, find something both of profit and interest in a consideration of these investigations; and it is this idea that has prompted me to prepare this paper and to submit it for your discussion to-night.

Resistance to infectious diseases or immunity, as we now call it, is a phenomenon that was recognized long before the causes of such diseases were understood. It may occur either as a racial or an individual characteristic, it may be natural or artificial, congenital or acquired. Examples of racial immunity may be found in the case of several of the common communicable diseases. In measles, as it is seen among the inhabitants of Europe and America, the type of disease is so radically different from that seen among the aborigines of the South Pacific, that it is certain that our own race enjoys a comparative immunity to the disease. The same statement applies, though perhaps not so obviously, to syphilis, against which, probably as a result of the almost universal prevalence of the disease in Europe during the middle ages, there has been developed among Europeans a condition of comparative racial immunity, so that in our own times syphilis is of a far milder type than that seen in the ravages of the disease among a virgin people. It seems not improbable that tuberculosis too, is one of the diseases against which our race is developing an immunity, much as the natives of tropical malarial and yellow-fever districts have developed immunity to those diseases.

The condition of a naturally acquired immunity is familiar to us all in individuals who have passed through an attack of one of the eruptive fevers, as *par example*, diphtheria or syphilis. As for artificial immunity, we have all produced it as far as small-pox and diphtheria are concerned, by vaccination and by the use of immunizing doses

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\*Read before the Orange Mountain Medical Society.



of diphtheria antitoxin. But as I have already said, these two methods, one of which antedates Pasteur by almost a hundred years, are the only practically useful procedures that we have at command for the production of artificial immunity. It seems, then, a fair question to ask of the large numbers of scientific workers who have been devoting themselves for the past twenty years to the study of immunity, what they have accomplished in all that time?

Their work, as we all know, has been necessarily carried on for the most part through experiments upon the lower animals, and for this reason their investigations have been limited to those diseases which can be communicated to such animals, and the study of diseases, which can not be so communicated, has been difficult or impossible. Nevertheless in their investigations an experimental immunity to a very large number of bacteria has been produced, in various ways, and the condition itself has been subjected to the closest critical analysis; in the attempt to determine, as nearly as possible, of exactly what it consists. And in this attempt they have met with a considerable measure of success. The sum and substance of their discoveries and of the conclusions which they draw from them, I shall endeavor to set before you, as briefly and concisely as the nature of the subject will permit.

It is a matter of common knowledge to all of us that the potential virtue of immunity lies in the blood-serum of the immunized individual, and may be communicated to another by subcutaneous or intravenous injections of that serum. The chemical composition of the substances which confer this power upon blood-serum have thus far defied all ordinary methods of isolation and analysis; but by means of a most remarkable series of physiological investigations, a large mass of facts relating to the genesis and nature of these bodies has been accumulated, and a theory satisfactorily explaining the great majority of the phenomena of immunity has been enunciated and elaborated.

In the first place it has been discovered that there is in an immune serum a multiplicity of protective substances, each one of which has a definite and specific action in protecting the organism from the invading bacteria. These bodies are at least as numerous as the harmful substances secreted by the bacteria themselves, and probably in most cases more numerous. It is only recently that the workers along these lines

have begun to think that the toxic action of a germ can not be attributed altogether to the soluble toxin, found associated with it in its growth upon culture media outside of the body; for in the case of many pathogenic bacteria no such toxin has ever been found. As Welch, of Baltimore, was the first to suggest, and as his experiments, I believe, establish, some pathogenic bacteria produce their toxic substances only after they have invaded the body of their host, and have been stimulated so to do by the necessity for protecting themselves against substances deleterious to them, which are secreted by the cells of the host. However these toxic products of bacterial life are formed, it is their stimulating effect upon certain cells of the organism attacked, that gives rise to the production of the protective substances of immune serum.

The only well developed theory which has thus far been propounded to explain the phenomena of immunity is known as the "lateral-chain theory" of Ehrlich. According to this all cellular protoplasm is made up of complex molecules, each one of which is furnished with groups of lateral atomic chains, called "receptors," which easily form addition products with other organic substances, and are not very firmly attached to the central framework of the molecule. The normal function of these receptors is that of taking up from the blood or lymph-current substances for which they have an affinity, and which are required for the assimilatory or secretory needs of the cell.

The toxins likewise are of a complex chemical structure, having, according to Ehrlich's theory, at least two lateral atomic groups, of which one is relatively stable, and is called the "haptophore," while the other, relatively unstable, is called the "toxophore" group. Now, when any toxin is introduced into the animal economy, it can exercise its deleterious influence upon that economy only on condition that there exist in the protoplasm of some of the cells of the invaded body, receptors having a chemical affinity for the haptophore group of that toxin. Through this affinity the toxin is fixed by its haptophore group to that particular kind of cell, while the presence of the toxophore group in the resulting combination causes the injury or destruction of the cell.

When a cellular tissue is thus subjected to the effect of a toxin, the cells endeavor to protect themselves from it by casting off the susceptible receptors, first those already

combined with the toxin, and then, having been stimulated to produce them in great excess of the normal functional need, before any such combination has occurred. The blood and lymph, therefore, as a result of the injection of the toxin, become impregnated with an unusually large number of these unattached receptors, each of which has the power of combining with, and so rendering harmless a molecule of the toxin. Each additional dose of toxin stimulates the cells anew to this excessive production of receptors, until the blood-serum becomes so abundantly supplied with them, that it is capable of neutralizing an enormous dose of the poison.

Intricate and complicated as this process of antitoxin formation undoubtedly is, it probably represents only one of the infinitely complicated processes which go on in the tissues during immunization. Besides the antitoxin, there are found in the immune serum a number of substances each having a certain specific action either upon the infecting bacteria or upon the products of their growth. The most important of these are the agglutinins and the bacteriolysins. Of these two agents the former has the power of balling together the bacteria, the latter of causing their solution in the blood-serum. A closer examination of these two substances, which may serve as types of this class of protective bodies, discloses the fact that they are not simple, but complex, each being made up of two distinct and separate parts. One of them, which has been given the name of the immune body or the intermediate body, has according to Ehrlich's theory, two haptophore groups, one exhibiting a specific affinity for the receptors of the bacteria, the other an affinity for the protoplasm of the bacteria. The second part of the agglutinin is called the complement. It is only when the complement is chemically united to the bacterial protoplasm through the intermediary immune body, that the specific action, whether it be the agglutination or the solution of the bacteria, can be exercised. It can further be shown that while the intermediate or immune body is in some way formed in the serum as a result of the infection with the bacteria, the complement exists as a normal constituent of the serum, quite independent of the process of infection or immunization.

I have not yet discovered any report of investigations tending to show where or by the activity of what tissues the immune body is produced. It seems highly probable, how-

ever, that like the antitoxin, it is the product of cellular activity and is elaborated possibly by a process similar to that which is supposed to take place in the formation of the antitoxin.

But the formation of toxins, antitoxins, agglutinins, bacteriolysins and so forth, must not be supposed to represent the sum total of the changes brought about in an organism by the introduction of infecting bacteria. Of these several substances, the toxin is the only strictly bacterial product; yet being themselves living, cellular organisms, it is not to be supposed that they have no other weapon of defense against the substances formed for their destruction by the cellular tissues of their host. Indeed, it seems probable, as I have said before, that in the case of some infectious diseases the substances which produce the characteristic symptoms are not soluble toxins existing preformed in the culture medium of the bacteria causing the disease, but are formed by them only after they have invaded the body, and are themselves threatened with destruction there. Under these circumstances they may elaborate, as Welch has pointed out, not only anti-agglutinins, anti-bacteriolysins and many similar "anti" bodies, but also haemolysins, cytotoxins, cytolysins—an inconceivable variety of substances poisonous to the cellular economy of the organism they are attacking.

What limitations there may be to the multiplication of these complex chemical products in the body fluids of an individual struggling to resist the attack of an invading colony of bacteria, is a matter rather for conjecture than for serious scientific inquiry. But the cursory description that I have given of the probabilities and possibilities in such a case, will serve at least to illustrate the difficulties and complexities of this most confusing subject of immunity. As far as our present knowledge goes, it would seem quite certain that these complexities are not simply those of the terminology of a new and, perhaps, crude branch of science, but are rather inherent in the phenomena of this condition.

With these facts in mind we should not be surprised that investigators along these lines are making little progress as far as practical results are concerned, but rather consider it a matter of good fortune that in the course of their work they should have stumbled upon some few valuable remedial or prophylactic measures. The prospects for more of such discoveries in the future



are, I believe, bright and hopeful. We have at least discovered that the problem of immunity is not the simple problem it appeared to Koch, when he exploited tuberculin, and enough has been done in unraveling its intricacies to inspire us with the confidence that the next important discovery of his co-workers will not prove such another fiasco.

Before concluding my paper I should like to bring to your attention one consideration which has repeatedly suggested itself to me in my study of this subject, and, it seems to me, has some practical bearing upon it. According to Ehrlich's theory, you will remember, the receptors concerned both in rendering cells susceptible to toxins, and in the elaboration of antitoxin, have under normal conditions a function which is not pathological, but assimilative or secretory. That is to say, they have normal affinities for nutritious or other substances circulating in the blood, and through these affinities exercise the selective activities in that part of metabolism which is a peculiar function of the cells to which they belong.

This being the case, it seems highly probable that there are substances other than bacterial toxins, substances, it may be, already familiar to us if not as nutrient agents, at least as products of the tissue metabolism or katabolism, or chemically related to them, which normally satisfy the affinities of the cell receptors, just as the bacterial toxins satisfy them pathologically. And it would be perfectly possible, if only we knew what these substances were, to administer them in such a way as to stimulate the cells to the same excessive production of receptors, which they take on when stimulated by the injections of toxin. Thus it might be possible without the use of any toxic material whatsoever, but merely by artificially increasing the quantity of a certain substance already normally present in the blood, directly to stimulate cellular tissues to the formation of a specific antitoxin.

One practical result which, I think, we may confidently expect to develop from this work in the near future, is the discovery of a method for measuring in any individual the degree of immunity he possesses for any infectious disease. The practical importance of such a discovery must be obvious to you all. Indeed, it seems to me to be the first essential to be fulfilled before attempting immunizing experiments upon our kind; for how can we tell how far we are from failure, or how near we are to success, if we have no reliable test for the presence of the

condition we are striving to produce. Possibly it will be established that the agglutination test is a good measure of the degree of immunity in a blood-serum, possibly some other but similar reaction will prove better. But whatever method for its determination is found adequate, the discovery will be of unquestionable value, and will give renewed impetus to the practical side of this work.

### CHORIO—EPITHELIOMA MALIGNUM OR SARCOMA OF PREGNANCY.

BY F. V. CANTWELL, M. D.,  
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Mrs. X., age 31, married seven years, has had no children and no miscarriages. Always enjoyed good health. Her father's sister and her mother's sister died of cancer of liver and stomach. Husband strong and robust.

In October, 1903, she had a severe bleeding from the uterus. Dr. Barwis, who saw her at that time, was unable to say whether or not this was the result of a miscarriage. She recovered from this and was well until March, 1904, when she began to suffer from soreness over the abdomen with some distension. She then missed one menstrual period. Thought she was pregnant, but was not sure. In the middle of April, 1904, she had another hemorrhage which became so profuse as to threaten her life.

On May 5 she was sent to St. Francis Hospital with a diagnosis of probable fibroids of the uterus. An examination disclosed a womb about the size of a four months pregnancy, very soft with a dilated os, from which oozed blood-clot and grape-like bunches of hydatidiform mole. She was pale and had a somewhat more waxy look than is common in anemia from loss of blood. A quart of this mole was spontaneously evacuated and the womb contracted to almost normal size. After remaining in the hospital four weeks she went home. During this time she had gained in strength and her color improved, although she still had slight bleeding.

From that time until September she gained in weight and felt well in every way except for a continuous showing of the blood. On September 25th I examined her in my office. She looked well nourished, but showed evidences of loss of blood. For the past two weeks the bleeding had increased and she suffered some pain, not much—more of a discomfort. The uterus was as big as that of a four month's pregnancy. The cervix was soft; the os was too small to admit a finger; the body was symmetrical and felt boggy. Pregnancy was out of the question as there had been no sexual intercourse for seven months. The question was whether we had to deal with a chorio-epithelioma malignum or a soft myoma, with all the evidence in favor of the former. With this idea she was again sent to St. Francis Hospital and prepared for hysterectomy.

Operation September 30 at 7.30 A. M.

She took ether well. Upon opening the belly two ounces of bloody fluid was found loose in the cavity. The uterus was squat, flattened out in the pelvis which it almost wholly filled. It was soft. In general appearance and to the touch it was so like a pregnant uterus that a feeling of dismay came over me, but remembering the history this was dismissed. On top of the fundus was a spot as big as a silver dollar, roughened, and from which oozed a little blood. This looked as if the peritoneum had been rubbed off. It may have been through this and the absorption of the bloody fluid that such a rapid dissemination of the growth occurred afterward.

Considerable difficulty was experienced in securing the arteries, because, not only was the womb squat deep in the pelvis, but it was turned so that the left broad ligament was dragged down and back to an almost unapproachable position. When the ligaments were tied and cut as usual, there was profuse and general oozing of blood which was very hard to control. This and the fact that there seemed to be no involvement of the intra-vaginal cervix, decided me to amputate the uterus low down. This was done and the operation was finished as usual.

Upon cutting into the uterus I found what at first sight looked like either a placenta or a partially organized blood clot. Upon closer inspection this dark material was found to involve the walls of the uterus and was everywhere beneath the endometrium.

Here and there normal uterine tissue ran through it while one or two places showed nodules almost surrounded by healthy tissue. It involved the body only, and my incision went through the uterus, well away from it. This was proven by the fact that there was no local recurrence. Fig. 133 in Robert's "Gynecological Pathology" is an almost perfect picture of this specimen. A microscopical examination was made by Dr. C. L. Allen, who pronounced it a deciduoma malignum. To my mind the name chorio-epithelioma malignum is not a good one for this kind of growth as, clinically and microscopically, it is a sarcoma.

After the operation the patient did well until October 6th, the twelfth day, when her temperature rose to 101 degrees and pulse to 120. She complained of severe pains in her left side at about the site of the apex beat of the heart. There was no cough, no shortness of breath or other symptoms pointing to the lungs. The pain spread over a large area and was, no doubt, due to the involvement of the pericardium and pleura.

October 8th, pain is disappearing. She is much more comfortable. Temp., 100 degrees; pulse, 108.

October 12th, she has had occasional returns of pain. No fever, but her heart is acting rapidly, never going below 100. No abdominal symptoms. She looks pale and worried, eyes prominent.

October 15th, remains weak; no appetite, pulse 120; respirations shallow.

October 18th. She is out of bed but is thin, pale, listless and apprehensive.

October 28th. Left the hospital to-day, but in a bad condition, depressed mentally and physically with everything foreboding ill for the future.

On November 23d, Dr. G. A. Schoenig, her physician, reports a rapid general failure, with a pulse rate of 130 to 140. She has a cough and has raised some blood. Complains of much pain in left thigh and right arm near the shoulder. The femur and humerus at these points were tender and swollen, and the thigh was edematous, showing, no doubt, a deposit at these points. A small growth appeared in the roof of her mouth. Her liver was enormous, extending down into the pelvis.

She died on November 26th, of a general sarcomatosis, and, as the lesions were evident, I did not insist on a post mortem examination.

In every case of hydatid mole a careful microscopical examination should be made and if there is a suspicion of malignancy no time should be lost before doing a hysterectomy. Heretofore there does not seem to have been any way to determine the malignancy in these cases except to wait and if death occurs the case is considered malignant, if recovery ensues it is benignant. I venture to say that if the uterus was removed in every case, benignant and malignant, the death rate would be less than it is at present. In this case the patient had a previous bleeding spell from which she recovered. The uterus had contracted well and she had rallied so that even in the face of a strong suspicion of malignancy she was allowed to go home.

Because of the positive signs of deposits in the pericardium and pleura occurring so soon, the question arose—did the operation precipitate the dissemination of the disease. A review of the case would indicate that metastasis had commenced during the month preceeding the operation, and the only result of the operation was to make the patient weaker. I do not think this life could have been saved except by some unheard of surgical foresight.

The tumor was in the walls of the uterus and the cavity was lined with an unbroken endometrium. This suggested the following questions:

Is the blood of a pregnant woman, loaded, as it must be, with "building material" favorable to the growth of sarcoma? Is sarcoma a colony of insane cells?

That the tumor was confined to the uterine wall and that the first bleeding occurred over one year before death would favor the theory that this was primarily a sarcoma of the uterus over which were implanted the membranes of a pregnancy which had altered and stimulated its growth.

The Morristown Medical Club met on February 1st at the Morris Plains Insane Hospital. Dr. Evans, the host, read a paper on "Mental Disease."



## THE METHOD AND THERAPEUTIC VALUE OF NORMAL SALT SOLUTION.\*

BY E. A. Y. SCHELLENGER, M. D.,  
SURGEON, COOPER HOSPITAL,  
CAMDEN, N. J.

Saline infusion was first brought into prominence about ten years ago by Hildebrand of San Francisco. To-day it stands as one of our best therapeutic agents to meet urgent surgical and medical conditions. Further study and clinical experiments have proven that it increases the volume of the blood, lessens its sp. gr. and stimulates the heart through the increase in the volume of the blood. The arterial tension is raised and a larger blood supply is carried to the vital organs. The functions of the skin, kidneys and intestines are greatly stimulated and all organs of the body are influenced by it. It does not coagulate blood, on the contrary, it keeps it in a fluid state. The quantity of urine is greatly increased, being frequently three or four times the usual amount, and with this we find a great increase in the quantity of the urea.

It is important to remember that it is not safe to infuse more than one drachm of the solution to each pound of body weight in fifteen minutes, at the rate of about one pint in ten minutes, otherwise the accumulation of fluid would be too great and the kidneys could not excrete fast enough. Over distention of the subcutaneous skin must be avoided as local necrosis may take place. In intra-venous injection the flow should be gradual; if the solution flows rapidly it may produce pneumonia, engorgement of the liver and spleen and effusions into the pleural and peritoneal cavities.

Alarming symptoms which have been noted after the use of salt-solution are dyspnoea, headache, vertigo, specks floating before the eyes, mental excitement, delirium, hallucinations, severe pains in the left side and throbbing in the neck. The tension of the arteries is a good guide in shock; and in hemorrhage the radial pulse.

Saline infusion is contra-indicated in oedema of the lungs either from the heart or kidneys, and chronic bronchitis, in stout, old persons and young children, and in parenchymatous nephritis; also in cases of high arterial tension except those due to uraemia or puerperal eclampsia, in which the tension is first reduced by bleeding. It is also

contraindicated in atheroma, arterial-sclerosis, cardiac degenerations, bad valvular lesions, thrombosis and recent cerebral apoplexy. Chronic inflammatory affections of the liver and lungs are liable to be aggravated by it.

Various formulæ exist for making normal salt solutions. The proportion of sodium chloride should be about sixty grains to the pint.

Calcium Chlor, gr. 4.  
Potassa Chloride 1 2-3 gr.  
Sodium Chloride gr. 144.  
Sterile water, 1 quart.

The above formula suggested by Hare, of Philadelphia, and Locke, of Harvard, is the one usually used, as it is prepared in solution and tablets; and all that is necessary is to add the sterile water. The infusion may be given, intra-venously, in an artery, by the rectum, intra-peritoneally, or subcutaneously. All authorities agree that hypodermoclysis gives as good results as the others and is very much easier and practically free from danger. The intra-venous method is more difficult and is not free from danger.

**Intra-venously.**—All that is necessary is a small trocar or glass irrigator to which a piece of rubber tubing is attached (any kind of a vessel can be used, ordinarily a fountain syringe will do). The patient's arm at the elbow is carefully disinfected and a bandage is tied above the elbow to make the veins prominent. The vein is then exposed and a ligature is tied around it at the lower end of the wound. Another ligature is passed around the upper end, but is not tied until the vein is opened and the glass tip or canula is inserted into it. The ligature is then drawn tightly over the vein, enough to prevent the escape of blood. When enough saline has been used, the ligature is tied and the wound dressed antiseptically. Experience teaches us that this method is indicated in acute infections where bleeding is indicated. The patient is bled from one arm, an injection being given at the same time in the other.

In acute poisoning, also in extreme shock from hemorrhage or in collapse from cerebral injuries or from any cause, a rapid intra-venous saline infusion will restore the vasomotor tone quicker than any other method.

**Intra-peritoneal Infusion.**—The indication of this method is only when a laparotomy has been performed, according to Clark, who uses it as a routine procedure,

\*Read before the Camden City Medical Society.

first, to supply fluid and thus alleviate thirst for the first few days, second, as a preventive to possible post-operative infection.

In all forms of local and especially general peritonitis, the value of flushing the peritoneal cavity and leaving it full of salt solution after the operation is still an unsettled problem.

**Infusion by the Rectum.**—One should never depend upon rectal absorption in shock or any critical condition. Kelly, of Johns Hopkins, gives salt enemata at the end of every operation, the object being to prevent post-operative shock and thirst. It is also indicated, in addition to the subcutaneous method in cases of traumatic and post-operative shock. In cases where one wishes to use salt sol. every two or three hours, the subcutaneous method becomes painful; you can then use this method every two or three hours, and hypodermoclysis every six or eight hours. It is better to inject well up in the colon, and use the solution at temp. 105° to 120° F. If given carefully and not combined with whiskey, the rectum will bear salt infusions every two hours for days and frequently weeks. In very exhausted patients an enema of ½ pint salt sol. with ½ ounce of whiskey, given at night, will often produce sleep, and thus save the stomach for nourishment.

**Hypodermoclysis or Subcutaneous Method,** is the introduction of saline fluid into the subcutaneous cellular tissue.

Unquestionably this is the method of choice. The same apparatus may be used. Temp. of sol. should be 100° F. After the skin has been sterilized, the trocar is plunged into the subcutaneous tissue of the loin, buttock, scapular or mammary region. The place usually selected is the pectoral region, as there are a great many vessels there, the tissue is loose and one can readily infuse a pint, with very little pain and practically no danger of necrosis. The same place can be again made use of in four to six hours. Injection into the buttock as a rule had better not be done, as the part is fat, not vascular, and infusion producing pressure is frequently followed by gangrene.

#### Indications for Saline Infusions.

The therapeutic value of saline injections is to replace fluid which has been lost by hemorrhage, or to replace the fluid in the body which has been lost by excessive excretions, especially in the different forms of diarrhoea. In all conditions in which there are *poisons* or *toxins* circulating in the blood, the saline infusions are unquestiona-

bly valuable in diluting such poisons. In addition they increase the power of, at least, the kidneys and perhaps the intestines and skin, in the excretion of the poison. It, without doubt, increases the vasomotor tone and stimulates the excretion of fluid from the kidneys, not only the quantity of the fluid but its organic and inorganic constituents. In hemorrhage from any cause, salines are indicated.

In typhoid fever, the hypodermic injection of sterile salt sol., 2 ounces with 18 grs. of ordinary gelatine, is of great value. According to Crile, in surgical shock due to vasomotor centre, adrenalin is better than salt sol.; but in collapse due to hemorrhage salt solution is preferable. In selected cases of pneumonia, in conjunction with other treatment, it acts as a powerful heart stimulant, when other heart remedies can no longer sustain a flagging circulation. It increases the secretions and moistens the throat as well as the skin, and also aids the respiration.

Puerperal eclampsia. In these cases its value as a life saver is beyond a question of doubt, as it produces perspiration and increases the flow of urine and also replaces the expended fluid of the blood.

In puerperal infection, salt sol. given by subcutaneous and rectal injections increases the power of the tissues and blood to resist the toxins and assists nature in throwing off their effects. It is useful in uraemia not associated with dropsy, and in cases of suppression of urine. In septicaemia and the comatose state of diabetes it causes the rapid elimination of the impurities; as also in poisoning by coal gas and narcotics. It has been used in tetanus and in cases of obstinate vomiting. It will very frequently relieve much suffering by allaying thirst and increasing the urinary flow in gastric ulcer.

Saline infusion is indicated in cholera infantum and cholera morbus of a severe type and particularly in Asiatic cholera, in which cases it supplies the fluids and dilutes the toxins of the disease. It is useful also in cases of severe burns, not only to overcome shock, but more especially to relieve the toxæmia, which seems in some cases to be the true cause of death.

Intra-arterial warm salt infusions in the direction of the heart have been used successfully in moribund animals, if the cessation of the heart beat has not lasted longer than ten minutes.

In closing I would say that the indications for the use of normal salt sol. are so numer-



ous and in most cases so urgent, that I believe that every physician should have a special apparatus for transfusion, which should be included in his obstetrical and surgical armanentarium.

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### OF HOW MUCH VALUE IS CLINICAL PATHOLOGY TO THE PHYSICIAN IN GENERAL PRACTICE?

BY LOUIS FAUGERES BISHOP, M. D.,  
 NEW YORK CITY.

This is a question that I have often put to myself, receiving as many different answers as I chose different points of view. Looking at the facts as they actually exist at the present time, I would say, that clinical pathology is of very little value to the general practitioner. Its help is only sought in those cases where the suspicion of the presence of some particular thing is so strong as to make an examination almost unnecessary. Diagnosis has still the coarse meaning of simply sorting diseases under the different heads, that can ordinarily be well done by the symptoms of the case. The single pathological examination does not do more than confirm this diagnosis. In such cases clinical pathology is of but little use to the general practitioner and rightly but little money value is placed upon such insufficient examinations. Clinical pathology rises to the dignity of a valuable adjunct to the work of the general practitioner, adding not only to the scientific, but to the pecuniary value of his work, when examinations are made frequently enough to follow the case and become familiar with the progress of significant changes in the tissues and secretions. The proper interpretation of a single examination of the urine for instance, is almost impossible without the perspective afforded

by the progress of the case. A physician should be familiar with the habitual performances of the function of the kidneys in all of his patients, not therefore, to be misled by the presence of albumin during an acute illness in a patient suffering from cyclic albuminuria, or even the presence of tubercle bacillus in the sputum, when as in a case of my own, they have existed for years without apparent affect upon the general health.

Medicine is a truly great and glorious profession, and we all love it, or we certainly would not give it so great a proportion of our time and attention as we do. But we must not be misled into pretending that we are what we are not.

The leaders in the profession have always excited admiration for the greatness of their personalities, and the fineness of their work, but what has always been much more interesting, is the condition of the great majority of the profession who actually care for the health of the larger portion of the people.

Clinical pathology is not at the present moment of much practical value to this part of the profession, or to the great mass of the people. We have undertaken to seek and suggest a means whereby the resources of clinical pathology can be brought within the reach of every practicing physician. The problem is to get the men capable and willing to do the laboratory work, in touch with the men who have the people to treat, and to persuade the latter that pathology has a sufficient pecuniary value for them to sufficiently, if not abundantly, compensate the workers in clinical pathology. My small part in this has been the establishment of a laboratory, where for a stated fee per month within reasonable bounds, the physician can send all material in range of clinical pathology that he can collect in the course of his practice. I hope by a sufficiently well planned organization, whereby all routine matters will be attended to by men recently graduated and under the supervision of the best specialist in each line of work, to make this possible. The prospect of financial return is certainly not alluring, but the satisfaction of improving the resources and the quality of work, and the advantage that will come to me from an opportunity to study the clinical pathology of private practice, which I believe to differ materially from that of hospital work, will be a sufficient return for a fairly costly experiment. With 100 or 150 men paying \$10 a month, I believe the thing can even be made a financial success.

This does not only apply to the men practicing in cities, for a drop of formalin, a postage stamp, and a mailing case bring such a laboratory within the reach of all.

## Clinical Department.

### A Case of Ruptured Tubal Pregnancy.

By Alexander Marcy, Jr., Riverton, N. J.

Ida H., age 39, American. Housewife. Four children. Was taken suddenly at the house of a neighbor, with severe abdominal pains, on the evening of January 24th. The pain was so great that she had difficulty in getting home, although it was but across the road. In addition to pain, she felt faint and sick, and subsequently vomited a number of times. She felt cold and chilly, and as the conditions seemed to be growing worse her husband sent for me. This was about 1.30 A. M. and one of those delightfully cold, zero weather nights that we had last January, and the patient lived two and a half miles out in the country. On arriving at the house, was told that Mrs. H. was upstairs, and they guessed she was pretty sick, as she was vomiting every little while, and they thought she must have eaten something that did not agree with her.

On entering her room, I was struck by the ghastly palor of her face, and found her pulseless, with cold extremities, gaping and stretching with a slow sighing inspiration. Her acute pain at this time had subsided, and she complained only of a distressed feeling in the lower part of her abdomen. Her heart sounds were very feeble and temperature subnormal. It was evident that her condition must be due to internal hemorrhage, and in searching for a cause I inquired about her menstrual function. She informed me that she had gone ten days beyond her expected period, and that she had always been regular, excepting when pregnant. These facts in connection with the sudden onset of the attack, the severe pain in lower abdomen, the evidences of shock and hemorrhage, decided my diagnosis, as ruptured tubal pregnancy. I immediately gave her hypodermic injection of  $\frac{1}{8}$  gr. morphia sulph., and 1-60 gr. atropia sulph. I also ordered hot bottles around her and directed that she lie perfectly still.

I returned to my office for instruments, etc. in order to transfuse her, and also to secure some assistance. I succeeded in getting Dr. Tracey out of his nice warm bed and into the zero temperature, which by this time I had grown quite fond of, and we arrived at the house about 3 A. M.; found patient much the same, still pulseless at wrist, but no more pain or vomiting. After opening the medium basilic vein, I injected one quart of normal salt solution. A marked reaction occurred with return of pulsation in the radials, and a more general feeling of comfort for the patient. I then gave 1-30 gr. strychnine hypodermically, and continued the dry heat. I left Dr. Tracey in charge of the patient, and to await the coming of Dr. Applebaugh, who was to operate. Dr. Applebaugh came, operated and found ruptured tubal pregnancy on the right side quite close to the uterus. The tube was about the

size of a lead pencil. The woman made a good recovery and in four weeks was attending to her work.

### Intestinal Obstruction from an Adhesion Following an Appendectomy.

A second case, equally interesting, came under my care a few weeks ago. W. G. E., age 30, had an attack of appendicitis in April, 1903. The attack was severe and about the third that he had had. It was decided to remove him to the Hahnemann Hospital for operation, which was done, and a gangrenous appendix removed. The abscess cavity was drained and he made a good recovery, remained perfectly well until May 15th, 1904. On this date he was taken suddenly with pain in the abdomen centering around the umbilicus; vomiting soon followed. I was sent for at 5 A. M. The bowels had moved freely the day before, as well as twice that morning, as a result of a dose of castor oil and an enema of soap and water. No fever, no tenderness on pressure; belly flat; pulse normal. I concluded it must be an attack of gastro-intestinal irritation and gave a hypodermic of morphia and atropia, with instructions to have the bowels moved freely again, if the pain was not promptly relieved.

I saw the patient again at 11 A. M. and at 8 P. M. He was still complaining of pain and had occasionally vomited. Calomel in  $\frac{1}{4}$  gr. doses was given, followed by citrate magnesia, but bowels did not move. I then gave a compressed enema of 2 oz. epsom salts, 2 oz. glycerine, tablespoonful spirits turpentine,  $\frac{1}{2}$  pint of water; by high injection.

In a half hour the patient had two large fecal movements. I expected that this would surely relieve him, and so stated to his family, who were getting rather anxious. The next morning I was summoned at 5 A. M. and found that he had put in a very uncomfortable night, was still having pain and still vomiting. At this time it was noticed that the vomiting was more of a regurgitation and without effort. He still had no rise of temperature, pulse perfectly normal, belly not distended. My diagnosis was acute obstruction of bowels, probably of the small intestine high up, and most likely caused by an adhesion from appendicitis. I advised operation. As he had been under the care of Dr. Van Lenop before and part of his family were rabid homeopaths, I concluded to have Dr. Van Lenop see him, and operate if he thought best.

The doctor, after a careful examination could not make up his mind whether the patient had an obstruction or not, and said he was between "the devil and the deep sea," saying, if he cut him, and there was no obstruction, he would be blamed; and on the other hand, if there was an obstruction and it was allowed to go too long, then the patient would probably not live and he would blame himself. It was agreed, however, to try one more compressed enema, high up, and later a very large injection was to be thrown into the colon, and, if symptoms were not relieved by these, to operate. Relief was not obtained and the abdomen was opened at 6 P. M. A firm adhesive band was found under which were about four feet of the ileum and a volvulus also existed in the same piece of gut. The intestine was still in good condition and the obstructions were easily removed. The patient made an uneventful recovery.



## INHALATIONS OF 95 PER CENT. ALCOHOL. ITS USES.

By E. B. SILVERS, M. D.,  
RAHWAY, N. J.

About forty years ago, there was located here one of the old fashioned Methodist divines. One of those who seemed to think that the more he pounded the ancient upholstery of his desk, and the more he "hollered" out his words, the more he pierced the sleepy heads of his hearers. In consequence of the strain and inhalations he lost his voice to such an extent that had to give up preaching. He procured a position in a mixing department where large quantities of alcohol were used and of necessity he inhaled daily the fumes of it. In three months time he was entirely free from his disability and resumed preaching. Of course, rest of his vocal chords was an auxiliary to his cure. But to my mind, the inhalation of alcoholic fumes was a large factor in this result. Since that time, in all colds in the head and in all grippe attacks I have had my patients use it with the happiest results. In laryngeal and bronchial cases, I order the inhalations for ten or more minutes three or four times a day. The first effects are not very pleasant, as there is considerable smarting with much defluxion from the eyes, which soon passes off followed by a pleasant clearing of the nasal passages and prompt relief. If it is breathed at the start through the mouth, exhaling by the nasal passages, it will smart less. To induce children to use it, a perfume may be added, of these, the oil of wintergreen is the best on account of its antiseptic properties. A little salicylic acid extra can be added, particularly in diphtheritic cases. I take a section of an unfolded newspaper and approximate the two opposite edges, somewhat overlapping them, and fasten them with a large safety pin. At the apex of the cone I secure an unfolded handkerchief, and in using it I have the eyes out, the nose and mouth covered. This plan of administration is easily adopted and the cone can be readily renewed in the interest of cleanliness.

Try it, fellow practitioner, and you can soon abort a cold, and prevent its travelling down and affecting the lungs. The hawking and strangling so often incident to a cold in the head, is easily prevented and sleep is readily induced if the treatment be used freely before retiring.

Dr. Ernest J. Lederle, formerly health commissioner of New York City, recently gave an informal talk on milk at the annual meeting of the Village Improvement Association of Cranford.

Drs. Augustus M. Clark, Marx Danzis and Marcus Seidman were summoned before the Health Board of the City of Newark last month, charged with apparent violations of the sanitary code.

The Montclair Board of Education has voted to unite with the Board of Health in employing a medical inspector of schools, who shall visit every school in his town at least twice a week.

## Annual Reports from the County Societies—1903-'04.

### CAPE MAY COUNTY.

*Dr. D. King Webster, Reporter,  
South Seaville.*

During the last year Cape May County Society held two meetings; one in October and one in April. The meetings were fairly well attended. The diseases peculiar to the different seasons of the year have made their appearance regularly. Pneumonia and tonsillitis have been prevalent. Death removed one of our leading members, Dr. V. M. D. Marcy, of Cape May City. Five new members have been added to our roll. Dr. Theodore Davis read a paper on "Injuries In and about the Joints," and Dr. J. Morgan Dix presented a paper on "The Country Physician as a Gynecologist." The Society was reorganized and a new charter received.

### BURLINGTON COUNTY.

*Dr. Joseph Stokes, Reporter,  
Moorestown.*

The interest in this Society has been well sustained. Several new members have been added. We have sustained a severe loss in the death of our honored Secretary, Dr. Addison W. Taylor, of Beverly. The reporter complains that he is hampered by the apathy of the members in replying to his inquiries; only four answers having been received. Last summer there was very little sickness. Intestinal troubles being markedly less than usual. The severe winter, however, caused a large amount of sickness. We had no epidemics of la grippe, but pneumonia, bronchitis and tonsillitis have prevailed to an unusual degree. During the spring months there have been widespread epidemics of whooping cough, mumps and measles. We have rarely seen typhoid fever and malarial fevers are becoming almost unknown in Riverton, according to Dr. Marcy. Dr. Pugh reports from Burlington, the prevalence during the whole year of scarlet fever, generally of mild type. Dr. Shipps, of Bordentown, reports small pox and typhoid fever.

### BERGEN COUNTY.

*Dr. James W. Proctor, Reporter,  
Englewood.*

Four regular meetings of this Society have been held during the past year. One special meeting was held for the purpose of reorganization. Several new names have been added to the roll of membership. No death has occurred among the members. Several interesting and instructive papers were read during the year. No serious epidemics have occurred during the past year. La grippe continued throughout the winter months, accompanied by pneumonia of the bronchial variety. Diseases of children, as rubeola, scarlatina, diphtheria, mumps and whooping cough have existed at times, but not to the extent of an epidemic in any case. One member reports tubercular disease and cancer on the increase. The Society generally, is in a flourishing condition.

**ATLANTIC COUNTY.**

*Dr. A. Burton Shimer, Reporter,  
Atlantic City.*

This Society has held its regular meetings and more enthusiasm has been evinced than usual. Thirteen new members have been elected and no deaths have occurred during the year. Drs. William M. Barnes, and David A. Kraker have moved from our jurisdiction. The new constitution and by-laws were adopted and a new charter granted. A number of interesting cases were presented, and the following papers read: Dr. J. Madison Taylor, "Diagnosis with Especial Reference to Diseases of Children;" Dr. H. D. Nichols, "Mechanical Methods of Diagnosis and Treatment;" Dr. John H. Musser, of Philadelphia, President of the American Medical Association, "Some Special Points of Diagnostic Interest in Obscure Abdominal Troubles." Dr. W. Blair Stewart, "The Use and Abuse of Hypnotics;" Dr. G. H. Simmons, "American Medical Association Work."

A special meeting was held at the Atlantic City High School, when Dr. George M. Gould gave an illustrated lecture on "Home and Health," showing more than one hundred views. The city has contracted for the disposal of garbage by the Arnold Utilization System, instead of the present method of incineration. The Board of Health has established a very comfortable quarantine hospital for the especial treatment of contagious diseases. The mosquito plague in Atlantic City has been greatly lessened by filling in lowlands. Malaria is still unknown. The schools are inspected daily. One medical inspector is assigned to each school building. Great activity has been shown by the Sewage Commission. \$48,000 has been expended this last year for improving this plant. The Atlantic City Water Department guards the source of the water supply and maintains its purity. The health of the county has been as usual; no epidemics having been reported.

**CUMBERLAND COUNTY.**

*Dr. W. P. Glendon, Reporter,  
Cedarville.*

The regular quarterly meetings have been held. The attendance has increased and the papers were of scientific value. At the July meeting, Dr. E. Stanley Goudy read a paper on "Cystic Tonsillitis." In October Dr. Tomlinson read a paper on "Puerperal Insanity." In January Dr. O. H. Adams read a paper on "Medical Oversight of Public Schools, a Phase of Preventive Medicine." At the annual meeting in April, Dr. M. K. Elmer read a paper on "Foreign Bodies in the Alimentary Tract." Many interesting cases were reported. Dr. Miller reported a case of cancer of the stomach. Dr. Hogg reported a case of cirrhosis of the liver, upon which he had performed Talma's operation with satisfactory results. Dr. Day reported a case of displaced cystic kidney. Dr. Adams reported a case of tetanus cured by the use of anti-toxin. Dr. Stites reported a case of pancreatic disease. At the annual meeting Dr. J. Chalmers Da Costa gave a talk on the cancer question. Death has removed one of our oldest members, Dr. Ephriam Bateman, while six new names have been added to the membership.

**GLOUCESTER COUNTY.**

*Dr. W. Grant Simmons, Reporter,  
Swedesboro.*

The meetings have been well attended. There were five meetings during the year. One being the social session which was held at Wenonah Inn. Many interesting cases have been reported and the papers have been of a high standard and have brought forth much profitable discussion. The health of the county has been about as usual, except for a few cases of small pox. At the January meeting a special committee was appointed to decide upon a uniform fee for attendance upon these cases. There have been no additions in membership, neither have there been any losses by death or resignation.

**CORRESPONDENCE.**

Riverton, N. J., Feb. 4, 1905.

*Dear Doctor Newtons*

I would like to see a synopsis of the meetings of each county society appear in the "Journal," as it would stimulate the members to do better work in their societies, as well as bring to notice much that is of scientific value.

At the next meeting of our State Society, I am going to bring the matter up and propose that the proceedings of the county societies be published in the "Journal."

It would certainly add very much to the value as well as interest of the paper, if such a department could be established.

With kind regards for yourself and best wishes for the success of the "Journal,"

I am yours very truly,

ALEX. MARCY, JR.

**BOOK REVIEWS.**

**MENTAL DEFECTIVES: THEIR HISTORY, TREATMENT AND TRAINING,** by MARTIN W. BARR, M. D., Chief Physician Pennsylvania Training School for Feeble-Minded Children, Elwin, Pa. Octavo, cloth, illustrated, 368 pages. Philadelphia, P. Blakiston's Son & Co., 1904.

The keynote of Dr. Barr's system of caring for and training the mentally deficient, is a careful classification of these unfortunates. He divides them into five classes, as follows: Idiots, idio-imbeciles, moral imbeciles, imbeciles and the backward or mentally feeble.

The first class is sub-divided into the profound idiots, who are unimprovable; and the superficial, improvable in self-help only. The idio-imbeciles are improvable in self-help and helpfulness, trainable to a very limited degree. The moral imbeciles are mentally and morally deficient. They are sub-divided into low, middle and high grades. They are all susceptible of considerable improvement; but need constant watching and care, are bestial in their tendencies and prone to all sorts of mischief. The imbeciles are mentally deficient. They are also divided into low, middle and high grades and are trainable in the manual arts and to some extent in intellectual pursuits. The backward or mentally feeble can, under proper care and instruction, be trained for a place in the world.

Dr. Barr rightly lays great stress upon physical and manual education and the improvement of the



physique. He recommends circumcision as a routine practice in the male defectives. The chapter on diagnosis is perhaps not as full as it might have been made. As our author says, however, "conditions, however approximate, change and merge so imperceptibly that the experienced eye alone can recognize and place the patient." Therefore, an expert should be consulted in every case and generally speaking, all idiots and imbeciles should be placed in suitable institutions, for the two-fold purpose of being under the care and observation of experts and of being associated and trained with other defectives, as it is well known that association brings emulation, excites interest and improves the mental and moral tone of children, whether normal or defective.

Our author disapproves of the idea, which seems to prevail amongst the laity, and is no doubt fostered by the interested teachers, that any feeble-minded child can be benefited by education. These children should be carefully classified and their friends truly informed of their condition and their prospects for improvement.

The chapter on etiology is well written and interesting. That on training and treatment is the most valuable part of the book. Dr. Barr condemns craniectomy as a curative measure in idiocy and quotes some excellent authorities. He is strongly in favor of preventing by law the marriage of the mentally deficient. The latter portion of the volume is devoted to a description of cretinism, epilepsy, hydro and micro-cephalus, etc. The illustrations are abundant and good. The work is designed for the general practitioner and should find a place in the library of every progressive physician.

**PHYSIOLOGICAL ECONOMY IN NUTRITION**, with Special Reference to the Minimal Proteid Requirement of the Healthy Man. An Experimental Study. By RUSSELL H. CHITTENDEN, PH. D., LL. D., Sc. D., Director of the Sheffield Scientific School of Yale University and Professor of Physiological Chemistry. Member of the National Academy of Sciences; President of the American Physiological Society; Member of the American Philosophical Society, Etc. 8vo., cloth, 478 pages. New York, Frederick A. Stokes Company, 1904.

There is a wide difference between Professor Chittenden's book and any other work on dietetics which has ever come under our notice. The latter, while valuable and interesting, are largely conjectural and didactic, and generally convey the impression that the author may be more or less biased by prejudice or self-interest. The violent attacks upon meat for instance, as an article of diet, in which certain writers indulge, lose much of their force from their extreme and apparently ill-founded statements. Furthermore, the authors of such books seem to be actuated by a dominant motive to prove their preconceived theories even at the expense of scientific accuracy.

Dr. Chittenden's book is free from any such drawback. It can but commend itself to any thinking person by its moderate tone, and by the care which the author has exercised throughout not to take anything for granted and to check off all of his own observations and conclusions by the work of others.

At last we have a record of a carefully conducted series of scientific observations upon the physiological human dietary sufficiently extended to be convincing and carried out with every reasonable precaution against erroneous conclusions.

That the work is an epoch maker in this field of research, is, to our mind, undeniable.

That Voit's rules of diet allow too great a proportion of nitrogenous food has been before asserted, but it has remained for Dr. Chittenden and his collaborators to prove this.

Isolated examples of what a man can accomplish upon a meagre diet containing the equivalent of only six or eight grams of nitrogen per day, are not wanting. Such writers as Horace Fletcher and Eustace Miles have been able to do an almost incredible amount of work, both mental and physical, on a diet costing from 10 to 15 cents a day and consisting of milk, maple sugar and a cereal or milk biscuit and an apple or two with plenty of water. But these are probably exceptional men and it is doubtful whether their regimen would answer the same purpose with mankind at large.

Our author, however, made his observations upon three classes of men, as follows: First—A group of five professors and instructors in Yale University of varying ages. Second—A detail of thirteen soldiers, members of the Hospital Corps U. S. Army, and, third—A group of eight students in the University. The soldiers were under observation for six months and some of the other men for longer periods, so that time enough was taken to be certain that the results of the restricted diet, were not transitory. Perhaps the most remarkable result of Professor Chittenden's observations upon the members of these groups was that in all the physiological need of nitrogen was practically the same, viz., from .108 to .134 grams of metabolized nitrogen per day to the kilogram of body weight, and this quantity of nitrogen was taken up by the tissues of the athlete taking full exercise and by the professional man leading his ordinary life.

Space will not permit us to analyze the results of the experiment as completely as we would like to do and as their importance warrants. The examinations of the blood of the soldiers during the course of the experiment are of great interest and disprove the commonly accepted notion that beef is necessary to make good blood.

The unsolicited testimony of the soldiers themselves that the regimen to which Professor Chittenden subjected them, was highly beneficial to their health and that they would willingly undergo the ordeal again, is very convincing.

The book proves that meat is not an essential article of diet for the average man in health. That nearly every one eats two or three times as much of all kinds of food as he needs, and that physiologists and physicians generally have entertained and taught wrong beliefs in regard to diet. The illustrations are extremely effective.

To say that every doctor in the world should read this book and lay its precepts to heart, is to put a moderate estimate on its value.

At the annual meeting of the Gloucester County Medical Society the following officers were elected: Dr. E. Mortimer Duffield, Glassboro, president; Dr. C. Frank Fisler, Clayton, vice-president; Dr. George E. Reading, Woodbury, secretary and treasurer, and Dr. W. Grant Simmons, Swedesboro, reporter.

Dr. Obadiah V. Garnet, of Paterson, is critically ill with nephritis at the Paterson General Hospital.

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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MARCH, 1905.

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### ATTENTION, DOCTORS!

Again the osteopaths of New Jersey are in the saddle. Again they are endeavoring to secure the enactment of a law which will virtually license them to practice medicine in this State. A bill has already been introduced into the State Senate intended to accomplish this object under the specious pretext of examining and sorting out those who are competent (sic) to practice the so-called science of osteopathy.

Now is the time for the qualified physicians in every part of the State to act.

Let every one of them, forgetting former differences, unite to prevent the passage of this pernicious measure. Let every one see his senator and representative in person, or, if that is impossible, write or telegraph them without delay, and point out to them that there are nearly 2,500 legally qualified physicians now practicing in New Jersey, and that the enactment of such a law will be an insult and an injury to every one of them, as well as a menace to the life and safety of each inhabitant of the Commonwealth.

### DEMENTIA PRAECOX.

This term was introduced by Pick and is a translation into Latin of the *démence précoce* of Morel. It is an exceedingly significant name for a striking form of insanity. However, Dercum (*Journal American Medical Association*, February 4, 1905) proposes its abolishment on the ground that it is

misleading and therefore unscientific. As he points out, the term dementia, from its derivation and usage implies an incurable mental degeneration, whereas of the conditions included under the term dementia praecox, eight per cent. of the hebephrenic and twenty per cent. of the catatonic forms recovered (according to Kraepelin) although there may be recurrences.

In its simplest form dementia praecox may be defined as an arrested mental development or idiocy, which supervenes in subjects who have started life with, to all appearance, a normal intellect. The "accidental and acquired idiocy" of Esquirol.

Dercum would substitute for dementia praecox the term "insanity of adolescence" (Das Jugendirresein of the German writers) and would divide this general term into three divisions: The simple form (hebephrenia), the catatonic form and dementia paranoides.

Of these the first comes on early in life (as its usual name implies, at the time of puberty), the second somewhat later, and the third still later, even, in some cases, according to Kraepelin, as late as between the fiftieth and sixty-fifth year.

These forms all resemble each other, as they also resemble general paresis, in showing an initial depressive stage of varying duration, followed by an expansive stage, and terminating in complete dementia. They also shade into each other in symptomatology, so that an exact differentiation is often difficult and perhaps impracticable.

In spite of Dr. Dercum's clear and logical argument we are disposed to regard the term dementia praecox as firmly rooted in the literature of insanity, and to think that it designates, as clearly as any arbitrary term can, a primary dementia as distinguished from a terminal, a paretic or a post-organic dementia.

Whether the study of insanity would be simplified or not by the adoption of Dercum's suggestion to drop this expressive term and to substitute for it the more general term "insanity of adolescence" is, as we



have already intimated, somewhat uncertain.

Every student of this important subject will, however, be abundantly repaid by a careful perusal of the interesting paper from which we have quoted so freely.

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## HEALTH BOARDS AND POLITICS.

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*American Medicine* has said some extremely pertinent things recently about the ever-to-be-sought divorce of all matters pertaining to the public health from the corroding influence of politics. We paraphrase a recent editorial as follows:

Increase of the sufferings of the dependent classes, degradation of the medical profession, and degeneration of that sanitary science which alone can alleviate the hygienic sufferings and wrongs of the poor and, for that matter, of the well-to-do, inevitably come with the rule of the American politician. The experience of trying to secure a proper enforcement of sanitary laws through political channels has been repeatedly tried and has as often failed.

So tremendous are the possibilities of evil in the control of the water supply of New York City, for example, by the political rings, that Mayor McClellan, "partisan" as he confesses himself to be, has advised that a bill shall be introduced into the State Legislature to turn over the whole question to a permanent committee of three, who shall be beyond all political influence.

To some such conclusion every city, whether it be Newark, or Jersey City, or Paterson, must finally come. Typhoid fever is neither Republican nor Democratic, nor is the "great white death" amenable to ward politics.

Every physician who is worthy of the name, and every right thinking man and woman must lay aside all political affiliations and unite to bring about the day when the people's lives and the health and welfare of our children shall no longer be the sport of the political boss, and when health officers shall not find it necessary to place questions

of party expediency above those of the public good.

To secure this great desideratum, a more determined and better organized profession is the first requisite. When that is secured the force of public opinion before which, as the court of last resort, everything, in America at least, must finally yield, will afford us all the support we need and many things which seem at present beyond our reach will be readily obtained.

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## THE CONTRACT EVIL.

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The communications of Doctors Hutchinson and Wilson printed in our correspondence column last month tell their own story and tell it well.

The letter of the former, dealing with an insidious and growing evil with some minuteness and calling for information as to the spread of the contract system in other counties than his own, we especially commend to the attention of our readers. Perhaps some one, who has given attention to the question, can answer Dr. Hutchinson's request for facts and figures.

To the thoughtful mind it must be apparent that the lot of the general practitioner constantly grows harder. As has been wittily said, the specialist has left him nothing to treat except the umbilicus. The dispensaries and clinics are doing everything possible to instill into the minds of the laity the conviction that it is entirely needless to pay a doctor, whose chief delight it is to give away his services and allow his family to starve. But—and this is the unkindest cut of all—doctors by underbidding each other and taking lodge and society contracts are actively engaged in pulling down their financial house about their ears.

Brethren, this must be stopped! The remedy is in our hands and can best be applied according to the plan outlined in Dr. Hutchinson's letter, namely, through the county societies. But to make it effectual every legally qualified practitioner of medicine should be brought into his county socie-

ty and must then pledge himself to do no work for lodges or societies for less than the regular professional fees. And the society must see to it that he keeps his pledge. And they must also see to it that no one not legally qualified can practice medicine in any county in this state.

This may sound Utopian. But we are convinced that it is not only feasible but will eventually come to pass. Self interest alone will before many years force every legally qualified practitioner to join his county society, and the county societies, on the other hand, will be forced to break up the contract evil, discipline their own refractory members and drive out the quacks or go out of existence.

Physicians must organize more thoroughly to protect themselves, and if the present state and county societies can not protect their members their doom is sealed, for they will soon be replaced by organizations that will do this and do it effectually.

### THE ABDOMINAL BELT IN WHOOPING COUGH.

Kilmer (*Journal American Medical Association*, December 10, 1904) reports eighteen consecutive cases of pertussis treated by an abdominal belt. The belt is made of elastic webbing similar to that used in elastic stockings, and, for children under one year of age, should be five inches wide. The width being increased in older children so that it entirely covers the abdomen. This belt is snugly applied over a knit undershirt and fastened smoothly in place.

The device is similar to the well-known sea-sickness belt.

Of the eighteen cases of which the history is given, seventeen were greatly benefited by this simple appliance.

While it is too soon to pass judgment upon this method of treating a distressing and often fatal malady, the comparative inutility of the therapeutics ordinarily employed renders any innovation which is at all promising doubly welcome.

*The Committee on Scientific Work desires to give notice that interesting original papers from members of the Society are desired for the next annual meeting.*

*The titles and a brief synopsis of each paper should be in the hands of the committee by March 1st, 1905, so that a properly balanced program may be arranged and, wherever it seems advisable, a suitable discussion upon the subject of the paper may be provided for.*

*Address all communications and inquiries to*  
TALBOT R. CHAMBERS, M. D.,  
*Commercial Trust Building,*  
*Jersey City, N. J.*

*Most of the county societies hold their annual meetings in April or May and now is the time to urge all reputable medical men in this State to join their respective county societies.*

*About one year ago cards were sent out for the purpose of obtaining a personal record of every practicing physician in New Jersey—name, age, birthplace, school of practice, etc., etc. These cards, after being filled in, were to be sent to the Recording Secretary of the Medical Society of New Jersey and by him kept on file. Duplicate cards were to be kept by each county secretary of the practitioners in his county. Most of the county secretaries have made returns, but from some nothing has as yet been heard. The latter are reminded of this undischarged duty and urged to collect and send in these cards, properly filled out, at an early date.*

*Blanks similar to the cards have been printed on sheets of paper and can be supplied on application to the Secretary, Wm. J. Chandler, South Orange, N. J. It is very desirable to have a complete record of all men, regular and irregular, practicing medicine in this State. The time is not far distant when illegal practitioners will be prosecuted and punished to the full extent of the law.*

### OBITUARY.

**Spencer Van Dalsen, M. D.**, died at his home in Paterson, February 16th, of pneumonia, following an attack of gripe. He was 52 years old and graduated at the College of Physicians and Surgeons, New York, in 1876.

**William H. Risk, M. D.**, died at his home in Summit, N. J., February 7, after a long illness. He had been president of the Board of Health of Summit for two years. He was born in 1842 and was educated in Lafayette College and at the University of Pennsylvania. He lived in Philadelphia many years and went to Summit in 1873. He was consulting physician to the Fresh Air and Convalescents' Home at Summit, director of the Summit National Bank and a member of the School Board. He was also a member of the Morris County and the New Jersey State Medical Societies, the Society for the Relief of the Widows and Orphans of Medical Men of New Jersey, and an honorary member of the Orange Mountain Medical Society. He leaves one daughter

**Leonard J. Gordon, M. D.**, died at his home, 114½ Mercer street, Jersey City, on Thursday, January 26th, from heart disease, after an illness of three months. He was born in New York on April 16, 1844. In 1866 he became a student at the



New York University. When the Civil War broke out he enlisted in the Seventy-first New York Volunteers, and later volunteered in the Sixth New Jersey, of which he became Adjutant. For ten years he was engaged in business in New York, and for a time was private secretary to Daniel Drew. In 1872 he entered Bellevue Medical College, from which he was graduated three years later. Dr. Gordon practised medicine in Jersey City for two years, and was then appointed chemist of the Lorillard Tobacco Company, which position he held until the business was absorbed by the American Tobacco Company in 1894. At the time of his death he was director of the Jersey City Free Public Library. He was a member of the Hudson County Medical Society and of the Society for the Relief of the Widows and Orphans of Medical Men of New Jersey.

### THE MICROBE'S CONVENTION.

By Dowling Benjamin, M. D.

Near a little court or ally  
Where the dirt is moist and thick  
Near the centre of the city  
Where the folks are often sick.

All the Microbes held convention,  
To discuss with kindly grace,  
Micrococcus and Bacillus—  
How to help the human race.

Of the Microbes in the city,  
Very few will cause disease;  
But these ruled the whole convention,  
Ran the thing with perfect ease.

When the meeting called to order  
And the members heard the terms,  
Then they found the big convention  
"Packed" with Pathogenic Germs.

There was Leffler-Klebs Bacilli,  
And Bacillus of Anthrax,  
Shaking hands with old Plasmodium,  
Patting Staphylococci's backs.

Old Tubercular Bacillus,  
With a confidential grin,  
And fierce Tetanus Bacilli,  
(To admit them was a sin).

Low but gay Pneumococcus,  
Hoping now to rule the rink,  
With the ribald Diplococcus,  
"Rolling up" to take a drink.

Every blooming Streptococcus,  
Led a vicious septic gang,  
With the common Koch Bacillus,  
Drank and swore and smoked and sang.

When the good benign Bacilli  
Traveling in a natural way,  
Came on foot, by wind, or water,  
(Honest microbes could not pay.)

Every evil scheme was slated,  
Helpless they outside the bars;  
For the *Pathogenic* Microbes  
Had *Free Passes* on the cars.

## Hospital News.

### BEQUESTS TO TRENTON HOSPITALS.

The managers of the three public hospitals in Trenton, N. J., have been notified that each institution is to be given an amount aggregating \$35,000 for the establishment of free beds in memory of the late Dr. James D. Tantum, who recently died from the effects of an operation in a Philadelphia hospital. He left no will, but on his deathbed requested his daughter and sister to give from his estate \$35,000 to three hospitals in Trenton and \$5,000 to the German Hospital in Philadelphia.—*Medical Record*.

A thorough investigation into the management of the Essex County Hospital for the Insane was undertaken last month.

A concert was held in Elizabeth in January under the auspices of the Ladies Aid Society for the benefit of the Elizabeth General Hospital. The affair was a great success socially and financially.

The new building of the Mountainside Hospital in Montclair, was opened on February 7th. D. Bryson Delavan, M. D., of New York, and the Rev. Dr. A. H. Bradford, of Montclair, made addresses. The capacity of the institution is now 67 beds and it is one of the best equipped suburban hospitals in the State.

After a discussion as to the cause, spread, prevention and cure of tuberculosis, the Paterson Conference of Charity and Correction, at a public meeting adopted the following:

"Resolved, That it is the sense of the Paterson Conference of Charity and Correction that the proposed action of the Board of Health declaring tuberculosis to be a communicable and contagious disease meets with our hearty approval, and that their action declaring that all cases of tuberculosis be reported to the Board of Health and treated as other contagious diseases is a public safety measure, deserving the support of all our citizens; and that the proposed action of the Board of Health regarding disinfection of all places that have been occupied by tuberculosis patients is a timely and sanitary measure and receives the hearty endorsement of this organization.

"Resolved, That the Board of Education be requested to bring this subject before the teachers and pupils of the public schools at stated meetings, at which expert medical instruction may be given.

"Resolved, That public safety demands that the Board of Health establish a place where incurable cases can be properly isolated and cared for."

The discussion was participated in by Dr. John C. McCoy, Dr. John L. Leal, Dr. William K. Newton, Dr. McBride, Dr. John H. Banta, Father Stein, Rev. David S. Hamilton, Superintendent of Schools William E. Chancellor and Mr. Davies.

Dr. Walter E. Cladek has been appointed City Physician of Rahway.

## DIGNIFIED EDITORIALS.

"It is too bad that cologne won't keep sewers fresh and wholesome, and we admit on the spot that scavengers are a distinct blot on the face of municipal proprietary. It is also to be regretted that work means sweat and war means death. But, on the other hand, experience teaches that moral suasion is a frail staff in a mob, and that two fists beat an axiom every time in a street fight."

"It is never pleasant to look upon the nasty face of corruption; it does not enhance one's feeling of respect for his profession to learn the opinion of a manufacturer that a very large percentage of physicians will write an article lauding any preparation whatever, for \$25.00 or less, or to know that a still larger percentage of "medical journals" will publish such an article when written—if the manufacturer is an advertiser or will extend his advertising patronage. It does not make one pride-swollen to look upon this sort of thing in the medical profession. It does not add to the editorial joy in living to receive a carefully prepared "write up" from some manufacturer, consign it to the waste basket, and then watch that self-same article appear in numerous "medical journals" as an original and valuable contribution to medical literature. It does not increase one's respect for his kind to see and know these things and to picture the sort of intellect and conscience possessed by the doctor who owns and edits such "medical journals" and helps in the exploitation and debauching of his own profession—who offers himself and his possessions openly for prostitution. Dishonesty, fraud, graft—these are not pleasant nor dignified attributes, nor is the contemplation of them, nor a discussion of them, what would be called 'dignified.' Of course not. Doubtless the house-breaker considers the illuminating ray of the patrolman's night light a most undignified thing; nay, even an impertinent, no doubt."—*California State Journal of Medicine*.

## A TEST OF CHRISTIAN SCIENCE.

A bill has been introduced in the Iowa Legislature forbidding Christian Science "healers" to practise their art in the State under penalty of imprisonment in the penitentiary. The introducer of the bill has promised to withdraw it if the Christian Scientists will cure the doorkeeper of the House of deafness. Some of the "healers" are not willing to accept the challenge, but others believe that this is the appointed time to make a great demonstration of their powers in the most public way and propose to organize a concert of prayer and hard thinking for removal of the doorkeeper's belief that he cannot hear.—*Medical Record*.

## TO BAR CONSUMPTIVE TEACHERS.

"No teacher who has tuberculosis shall be permitted to continue his or her work in the class room," is part of a resolution adopted by the Jersey City Board of Education. Teachers thought to have tuberculosis "must submit to an examination by a physician to be designated by the Board of Education." The physician must "employ all modern methods of diagnosis, including a bacteriological examination, and shall report his conclusions to the board."

## SINGLE SERVICE PAPER MILK BOTTLE.

When informed that a paper milk bottle was placed upon the market, A. H. Stewart, of the Bacteriological Department, Philadelphia Bureau of Health, obtained several bottles to determine their efficiency. The bottles are made in three sizes, quart, pint and half-pint; they are conical in shape and made of heavy spruce wood fibre of three-ply thickness. The bottom is made of heavy pasteboard and the edges are so locked that pressure upon the upper or upon the under surface merely serves to lock it more tightly in position. A downward pressure of two hundred pounds is not sufficient to collapse the bottle. The lid is made of heavy pasteboard and fits in the lumen of the bottle by a surface contact of about one-half inch, with protruding lips, to enable its ready removal. The bottles are placed in paraffin bath at 100 C. for one-half minute and then transferred to a hot chamber which removes the excess of the paraffin and facilitates penetration. The paraffin coating strengthens the bottle, prevents the imparting of the woody taste to the milk and also sterilizes it. He placed 25 c.c. of sterile water in several bottles, shook them thoroughly and then allowed them to stand for one-half hour when plates were inoculated from the water, but no colonies developed. He then sent closed glass and paper bottles to several dairies in the city. When the milk was received at the laboratory the glass bottles invariably showed slight evidence of leakage, while the paper bottles did not. The bacteriological examination of the sets showed that the milk in the paper bottles contained about one-fourth as many bacteria as the glass bottles. The milk was also found to remain sweet longer in the paper bottles than in the glass. The paper bottles can be made for about one cent apiece, so that after they have been used once they can be thrown away without materially adding to the cost of the milk. By so doing there is less danger of carrying disease.—*Medical News*.

## SOCIETY MEMBERSHIP AS A QUALIFICATION.

It is announced that a man of means is to build four hospitals along the line of a certain railway extending through four States. The general public is to be admitted to these hospitals, and may be under the care of any physician "who is a member of the State Medical Society." As the profession becomes better organized, it will be recognized in more and more lines of activity that membership in representative medical societies is a good indication of the standing of a physician.—*Journal American Medical Association*.

## ONLY A SLIGHT DIFFERENCE.

"Far as I can learn," said the Pruntytown philosopher, "the only difference—excepting, of course, in the size of their bills—between the fashionable city physician, with several mysterious initials after his name, and the plain, every-day village doctor, who is commonly called 'Doc,' and swaps horses on the side, is that the former diagnoses your malady and the latter simply tells you what's the matter—that is, you s'pose they do."—*Woman's Home Companion*.



Baby No. 22 arrived at Charles Morgan's home in Philadelphia the other day.

Here are the statistics:

Mrs. Morgan is 40 years old.

The pair have been married twenty-two years.

There were eighteen boys and four girls.

All the boys, save the latest, died.

The four sisters range in age from 1 to 20 years.

"Haf you heard about Isaacstein?"

"Vaas it iss?"

"Dey took him by the hospital und took his appendix away from him, alretty."

"Hal Vat a pity, ain't it, he didn't have it in his wife's name."—*Cornell Widow.*

Dr. Sigmund E. Bondy, of Jersey City, has been arrested on the charge of having caused the death of a young woman by a criminal operation.

Dr. A. Jacobi, ex-president of the New York Academy of Medicine, has purchased the com-

plete collection of monographs belonging to the late Prof. Gerhardt and presented them to the Library of the Academy. There are 5,000 titles in the collection.

Dr. Luther M. Halsey, of Williamstown, read a paper on "Physiological Chemistry" at the annual meeting of the Gloucester County Medical Society.

Dr. F. LeRoy Satterlee, of New York City, will lecture before the Pierson Library Association, in their rooms in the Stickler Memorial, Orange, on March 7th, 1905, at 8.15 P. M. His subject will be "The Treatment of Rheumatism." The profession are cordially invited.

According to a newspaper report, 27 children have been born to one couple, Mr. and Mrs. George W. Dunville, of Yanton, S. D. The father is 43 years old and the mother is 38. The children are in 9 sets of triplets. 24 of them are boys and 3 are girls.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D., 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

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## GASTRO-UTERINE DISEASE.\*

BY JOSEPH M. RECTOR, M. D.,  
JERSEY CITY, N. J.

Intricate may appear the underlying conditions which become responsible for the complex mass of symptoms referable to gastro-uterine disease; impassible may seem the barriers which surmount the attempt to unravel these pathological difficulties, yet how simple they all become when one systematically follows an investigation which is complete from beginning to end.

These poor creatures, the slaves of chronic gastric or uterine disease, cannot but attract our undivided attention and elicit our strongest aid as we see them coming to us in the resultant state of malnutrition and distress. The disease becomes still more pitiable when we are told of the many failures happening as the results of careless examinations, inattention and even the forgetfulness by some of the fact that there exists far reaching injury consequent upon the disturbance of the balance of sexual life.

That the female sex, as an entirety, suffers from one or more functional derangements of the organic body, is almost an axiom which is accepted as a fact. These simple departures from the normal state, though functional at first, mark the beginning of multiple and complex organic derangement ending at last in a severe pathological lesion.

Your patient complains of a feeling of unrest, a slight frontal or occipital headache, excessive fatigue upon ordinary exertion, loss of appetite, distaste for her accustomed food, continued sleepiness, dragging pains in her back, a sense of fullness in her pelvis, soreness in the calves of the legs, disordered or painful menstruation followed by persistent leucorrhoea, heaviness after meals, increasing until epigastric pain is her constant companion. She is losing in weight, her muscles become flabby, the adipose tissue has lost its stability, her rotundity of figure is a memory of the past.

Matters of interest to other women are causes of anxiety and peevishness to her; coldness of the extremities, hot and cold flashes, numbness and tingling of the hands and feet give her the first warnings that a miserable state of existence has become her lot, which, unless relieved will condemn her to chronic invalidism.

If we examine the woman, when her symptoms first appear, we may find a simple lacerated cervix uteri, a prolapse of one or both ovaries, a retrodeviated uterus, with or without adhesions binding down the organ or its adnexa. The uterus entire may be inflamed, or its endometrium alone diseased, a small fibroid may be felt upon the fundus, or in the posterior wall. The purulent discharge from the cervix, or the enlarged and tender tube, may tell us the story that an infection was the starting point of the disease. The epigastrium is tender over the stomach centre or along the greater curvature, percussion shows its enlarge-

\* Read at the 138th Annual Meeting of the Medical Society of New Jersey.



ment, examination of its contents shows lack of synchronism in its action. Constipation and tympanitic enlargement of the abdomen mark the beginning of the gastric or intestinal indigestion.

As time passes by and a second examination is made, we find the uterus subinvolved and in a condition of complete procidentia, the fundus uteri pressing against the rectum, the cervix chronically inflamed, thickened and rendered inelastic by reason of its own hypertrophy. The tubes are the seat of purulent inflammation. The withdrawal of the examining probe is followed by a discharge of blood from the uterine cavity. The broad ligaments are engorged and tender. Burning micturition, frequent desire to urinate, prolapse of the bladder and the anterior vaginal wall and the adhesions between uterus and bladder show us how time and disease have accomplished their purpose.

The greater curvature of the stomach can be found at the level of the umbilicus, the margin of the liver projects well below the free border of the ribs, intercostal neuralgias, interscapular pains and lumbo-sacral disquietude are usually complained of. Nausea and frequent vomiting are present. Dyspepsia, acid eructations and cardialgias appear. The hydrochloric acid of the stomach is decreased. Sulphuretted hydrogen is present in excess in the intestinal tract. There is resulting non-assimilation and therefore anaemia. The abdominal walls are distended from the loss of tone of muscle and aponeurotic. Chronic endometritis with its resultant interglandular tissue is followed by indigestion. Menstrual congestion is accompanied by tympanitic distension, belching and vomiting; the epigastrium becomes sensitive and tender; faintness and anorexia show the presence of ovarian hyperaemia.

To the end that I may explain the relationship between the stomach and uterus and the symptoms or diseases referable thereto, happening, as the result of their anatomical relations and directly through the medium of the nervous system, by means of its inter-connecting nerve branches, I submit to your judgment the following anatomical facts.

Nature has endowed these two organs very liberally with nervous structures. We find the cerebro-spinal, sympathetic and pneumogastric group of nerves. The cerebro-spinal system need concern us only as it forms connections with the sympathetic

and also in its distribution to the external genital organs. The labia are supplied by the ilio-inguinal nerve, the perineum and clitoris by the pudic nerve.

The abdominal sympathetic consists of two major divisions: the splanchnic nerves and the lumbo-sacral chain of ganglia. The splanchnic nerves are: 1st, the greater splanchnic; 2nd, the lesser splanchnic, and 3rd, the smallest splanchnic. These three nerves arise from the fifth to the twelfth, inclusive, sympathetic ganglia. After passing through the diaphragm, they descend, each crossing the adjoining crus, so that the right nerve is behind the inferior vena cava and the left is behind the pancreas. They then unite to form the semilunar ganglion. From the several terminal ganglia of the splanchnic nerves are numerous branches surrounding the cœliac axis of the aorta and from them is formed the cœliac or solar plexus. Coming to this plexus are branches from the aortic plexus and the right pneumogastric nerve.

The solar plexus, in turn, gives out nerve branches which unite to form secondary plexuses and are distributed to the abdominal vessels, accompanying them in their paths to the viscera. Various plexuses are now formed, of which to us the cœliac, renal, spermatic and aortic are of interest. The cœliac through its gastric branch is distributed to the lesser curvature of the stomach. It joins the lesser splanchnic and the right and left pneumogastric nerves. The renal sends its terminal filaments to the ovary and receives the ends of the smallest splanchnic nerve. The spermatic supplies the fallopian tubes and uterus—fundus and anterior wall—its branches connect with the pelvic or inferior hypogastric plexus through the medium of the utero-vaginal, at which juncture it is also connected with the 1st, 2nd and 3rd sacral nerves. The aortic is of interest to us only through its inferior mesenteric plexus in its supply to the upper part of the rectum and its junction with the hypogastric plexus.

The lumbo-sacral chain of ganglia is a nerve cord which travels downward, resting upon the bodies of the lumbar and sacral vertebrae. It consists of four ganglia in the lumbar region and three or four over the sacrum. These ganglia connect one with the other and receive filaments from the corresponding spinal nerves. Branches from the upper three lumbar ganglia join with branches from the renal and solar plexuses to form the aortic plexus. Branches from

the aortic plexus—below the bifurcation of the aorta—join with the lower lumbar ganglia to form the hypogastric plexus. The hypogastric plexus supplies the viscera of the pelvic cavity. It contains no ganglia but bifurcates below to form the pelvic plexus and receives the 2nd, 3rd and 4th sacral nerves.

The pelvic or inferior hypogastric plexus subdivides into the vesico-vaginal, inferior hemorrhoidal, cavernous and uterine plexuses. The vesico-vaginal contains large proportions of spinal nerves, supplies the sides and base of the bladder and upper third of the vagina. The inferior hemorrhoidal supplies the rectum and joins with the superior hemorrhoidal, from the aortic plexus, also connecting with the median and inferior hemorrhoidal nerves of cerebro-spinal origin. The cavernous supplies the clitoris and is connected with the dorsal nerve of cerebro-spinal origin. The uterine passes to the lateral portions of the uterus between the folds of the broad ligament, to the fundus and posterior walls, connects with the 2nd, 3rd and 4th sacral nerves, hemorrhoidal plexus and ganglia at the side of the uterus which in turn supply the body and neck.

The left pneumogastric nerve, in its distribution to the stomach forms the anterior gastric plexus which expands over the anterior wall, contains vaso-motor and secretory elements and unites with the solar plexus, the great and small splanchnic nerves. The right pneumogastric nerve forms the posterior gastric plexus and joins with the sympathetic branches derived from the coronary plexus. This union of branches between the solar plexus and vagus nerves is accomplished in the muscular and mucus coats of the stomach forming the so-called plexuses of "Auerbach" and "Meissner."

To simplify this nervous complexity may I ask you to bear in mind the reflex paths which I have described, namely: the pneumogastric and lumbo-sacral nerves, branches of the cerebro-spinal system, are in close connection with the sympathetic system—solar and hypogastric plexuses. These sympathetic nerves contain vaso-motor and secretory functions. According to Rohrig, acting in a centripital direction. Thus it is easy to see how the reciprocity of the uterus with the stomach is established.

One of the main causes then of gastro-uterine disease is the close anatomical relationship existing between these two organs. The reflex nerve paths are the means of

transmission. Primarily, the disease affects the uterus, then, secondarily, reflex symptoms appear which simulate gastric disorder. Thus might I define the terms "reflex symptoms" or "reflex neuroses" as being a chain of symptoms which manifest themselves in the distant portions of the body and in a healthy organ or one that is without discernable disease.

McGillicuddy says, "the reflex neuroses are, of course, symptoms, but yet are more than simple symptoms as they are frequently productive of more distress than the organic disease from which they take their origin." Peripheral irritation is undoubtedly an exciting cause and that irritation may result in the production of reflex disturbance. It is to be remembered that severe disease may be present with but slight reflex disorder, still that does not dispute the fact that reflex irritations may become the exciting cause in predisposed individuals. The sight or smell of cooking food may excite a reflex secretion in the salivary glands or gastric juice. I have seen in a fasting dog with an inactive stomach, the sight and smell of raw meat cause a copious secretion of the acid gastric juice to run through a gastric fistula to be caught upon the testing litmus sheet. A continued anxiety, a sudden fright or surprise may cause a reflex stimulation of the renal glands. The young female emigrant often consults us because of sudden amenorrhoea, upon her first coming to our land, which is clearly a reflex condition acting upon the uterine nerves.

The necessity often arises to explain the correlation of symptoms otherwise than can be satisfactorily accounted for by the distribution of nerves; we may then describe the same by reason of the existing statical factors between the two organs, stomach and uterus. In the normal condition the stomach is held in position by its ligaments and the surrounding organs; each one acting independently and all acting in unison for the preservation of the natural conditions. The uterus is held in position by its maintaining ligaments, the upward pressure of the levator ani muscles and the intra-abdominal pressure. The normal adjustment of both organs is accomplished by the intra-abdominal pressure. For the stomach it passes through the region of the greater curvature, pushing it upward; for the uterus it reaches the fundus or posterior wall, keeping it in anteflexion.

The equilibrium of these organs is destroyed whenever their volume is altered,



the normal balance disturbed or a change occurs in the adjusting force. The descent of the diaphragm disturbs the intra-abdominal pressure and compensation becomes established, at first, by an equal outward expansion of the abdominal wall, as in the normal inspiratory act. If this change is not sufficient to compensate for the altered condition, the force exerts its increased action upon the greater curvature of the stomach and pushes the organ upward, which in turn acts as an aid to compensation of space, until finally it may require the forward displacement of the intestines to meet the necessity of the changed intra-abdominal pressure.

There is now a different position for the centre of the pressure force, in consequence of the new positions of the stomach and intestines and the direction of the pressure now from above downward and forward. The result of this changed direction acting upon the uterus may cause either a procidentia, by the force being applied directly upon the fundus, or a retro-diviation, should the direction of the force be against the anterior wall; thus the gastro-enteroptosis becomes the primary factor in the statical action and the intra-abdominal pressure the secondary factor in the production of the uterine displacement.

A large subinvolted uterus by reason of its own weight and bulk may fall downward and backward until an independent position of retro-deviation results. The displacement may remain constant as the line of intra-abdominal pressure has been changed, but it will have no power to alter the normal statical relations of the abdomen. The reflex gastric symptoms are the results of pressure upon the sympathetic and inferior hypogastric plexuses through the reflex nerve paths which I have before described.

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## AN ACCIDENTAL NEPHRECTOMY.

BY E. W. HEDGES, M. D.,  
PLAINFIELD, N. J.

The writer recently had the unique experience of removing a kidney without knowing it. Believing that the story of this unusual and seemingly idiotic procedure will be of interest to others, I venture to lay it before the readers of the *Journal of the Medical Society of New Jersey*.

Mrs. X., age 39, married for 10 years—no children and never pregnant. General

appearance healthy. Was perfectly well till eight years ago when she was taken with severe pains in the right iliac fossa, with vomiting, tenderness on pressure, intense pain on every movement of the body, followed by chills, fever and a long illness, confining her to bed for eight weeks. She thinks the fever lasted for two or three weeks. She was tender on pressure over McBurney's point for nearly that entire period, and the whole history of the attack was typical of a severe appendiceal abscess. Ever since that initial attack she has been sensitive in that region. She has never been able to do any hard work, such as sweeping or washing, without bringing on pain and tenderness and often has had to lie down for hours or even a whole day after any unusual exertion. Her menses were normal and her general health good during this eight year period, with the one exception noted.

Four days before I saw her she was taken with sharp pains in the right inguinal region, following some housework, forcing her to lie down for half a day. Next day the pains came back more severely and were accompanied with vomiting. The tenderness increased, and on the third day she had a chill followed by fever. She had a pulse of 110 with a temperature of 101. When I first saw her after this she had a drawn and anxious expression. Her pulse was small and thready. There was rigidity of the right rectus, exquisite tenderness over the region of the appendix and the slightest motion gave great pain. In the few hours that intervened before operation the pulse went up to 124 and was weaker. The temperature reached 102, while the other symptoms remained about the same.

Upon opening the abdomen through the usual incision in the right rectus, a hard mass was felt at the bottom of the cut, and the incision had to be enlarged downward to get at it. The mass was adherent to the parietal peritoneum. A strip of omentum, also adherent to the mass, was black-looking as if full of dilated veins. This was ligatured and removed. After walling off the abdominal cavity and proceeding to enucleate the mass, there escaped a large quantity of slightly bloody serum—from six to eight ounces. I remarked upon the hardness and globular feel of the tumor and Dr. Cregar, who was assisting me, was impressed with the same fact. It felt almost as hard as a golf ball though two or three times as large. The enucleation proceeded

easily, when, quite to my surprise, the whole thing popped out of the wound into my hand. I supposed it was a dermoid cyst of the right ovary that I had shelled out; but a further examination showed a nearly normal right ovary, only slightly cystic. I then asked my friend, Dr. Zeglio, who was present, to find out what the mass was while I made a rapid search for the appendix. He incised it and assured me that it was an atrophied kidney with a white-looking stone in the pelvis. There was no bleeding from the place where the kidney had been. I could see no vessels to tie, and quickly satisfying myself that the right kidney was gone from its normal position and that the left kidney was in its proper place, as the patient's condition was bad, I made no prolonged search for the appendix, but sewed the incision up, leaving only a cigarette drain running down to the bottom of the wound.

A more thorough examination of the removed kidney showed it to be two and a half inches long, two and a quarter inches wide and two inches thick. It was very hard on section, and completely filling the pelvis of the kidney and forcing its way into the solid tissues of the organ was a white ivory-like stone—cylindrical shaped—an inch and a half long and about an inch in diameter. Mere traces of the renal artery, vein and ureter were found attached to the pelvis of the kidney. They were atrophied almost beyond recognition and evidently had not functioned for years. The capsule of the kidney was studded with large veins, evidently anastomosing with the big veins of the omentum, and I have no doubt but that the kidney was nourished vicariously through the omental circulation.

It seemed as though the initial attack eight years ago must have been caused by the right kidney getting caught in some way at the pelvic brim; that the adhesions formed at that time had been a constant source of annoyance to the patient ever since; that the normal blood supply to the kidney, by some twist of the vessels, had been shut off, resulting in atrophy of the organ and that the omentum had generously supplied enough circulation to prevent its complete death.

The after history of the case was unusually interesting. Persistent vomiting began soon after leaving the operating table and kept up without much intermission for a week. The vomited matter was mostly yellow bile, but of so irritating a character that it set up a severe dermatitis on the

chin. It was impossible to give any kind of nourishment by the mouth, so rectal feeding was early resorted to. The temperature kept pretty steadily at 101 for a week, occasionally going up one or two degrees higher. The pulse ran from 110 to 130 and was feeble. There was no evidence of peritonitis nor much tenderness anywhere over the abdomen. Gas passed freely from the bowels from the first and there was a natural movement on the 4th day. The remaining kidney did good work right along and the urine passed was normal.

The patient became delirious for a few hours on the fourth day and continued so for most of the time on the fifth and sixth days. On the seventh day she sank into a stupor, extremities became cold, pulse could not be felt at the wrist and it seemed as though her end was near. At this juncture we threw in two and a half pints of hot saline solution intravenously with a magical effect. The mind at once cleared—even before finishing the injection—the pulse came up nicely at 124, there was no more vomiting, and while the fever lasted for another week, there was a steady fall of temperature and a gradual gain in every direction. The patient left the hospital on the 33d day feeling perfectly well, with no pains and able to walk about freely.

The moral of this tale is that an operator is likely to stumble on the unexpected in doing abdominal work, and that an appendical attack is simulated by many other conditions, even by an inflammation around a prolapsed and atrophied kidney.

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### PRO BONO PUBLICO.\*

BY HOWARD F. PALM, M. D.,  
CAMDEN, N. J.

*Introductory.*—Having been appointed upon the Section of Gynecology to report at this meeting, I presume that I am expected to read something relating to that important branch of our calling. Not pretending to pose as a gynecologist in your midst, I must nevertheless apologize for the non-display of pathological specimens as pus tubes, cystic ovaries, etc., belonging to women who have succumbed to their removal by skillful operators. The query: for what purpose have gynecologists been created? having been presented to me, I hasten to reply that

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\* Read at the meeting of the Camden County Medical Society, Dec. 13th, 1904.



they have been created for a two-fold purpose, viz:

First: To repair the havoc and ruin in the female generative apparatus which oft-times is the result of meddling and blundering midwifery.

Second: It is their apparent mission here on earth to magnify and exaggerate all symptoms of diseased conditions which they think they find, in order to educate the poor deluded woman up to the belief that an operation is absolutely necessary for her comfort and even her life, provided that she is able to produce the required fee for said operation. Having been granted a dispensation by our honorable president, I beg your indulgence and sympathy while offering the following digression.

Last Autumn I happened along the famous picturesque Wissahickon drive in Fairmount Park, when my eye rested upon the inscription "Pro Bono Publico" on a granite casing of a natural spring of running water. About this very time rumblings of distant thunder of discontent and approaching danger were heard upon the floor of this Society, and I concluded to select that inscription as the caption of my paper.

By reference I find that the constitutional purposes of this Society are as follows, viz: "To advance medical science and elevate professional character; to strengthen the professional and social ties among its members, and to safeguard the rights and interests of those legally engaged in the practice of medicine; to study the means calculated to render the medical profession most useful to the general public, by sanitary and scientific publications in the medical journals and otherwise; and by judicious efforts to influence the enactment of legislation in the interests of the profession and people." I shall leave each one of you to answer the question of how well have these noble purposes been executed. Personally, my Society affiliations in the past have been of the most pleasing character. And I am pleased to announce that some of my warmest professional attachments have been engendered at the meetings of the various medical societies which I have always attended with much profit and benefit. I have, however, been seriously impressed with the fact that apparently the sole object of our meetings is the reading of numerous scientific papers and their discussions, and all of our time and efforts are expended for "Pro Bono Publico," while the interests of the practitioner are lost sight of entirely.

While I am heartily in accord with the varied steps which have been taken in the rapid strides of medical and sanitary science, I fully realize that no other science has had to face such bitter opposition as that which strives to heal the ills of the human body. Only in recent times has liberty of thought and of speech set it free to work and advance. Yet, I claim that it is time to call a halt and seriously consider the question "Where are we at?" according to slang parlance. While it may be presumably the height of our ambition to serve and benefit the public by all of the improved methods of hygiene and sanitation, would it not be a wise procedure at least, on the part of this Society to take the initiative in what I might term "professional reform," and adopt drastic measures to modify the Assinine Suicidal course which all of the medical societies are promulgating, whether it be city, county or state Societies or the American Medical Association? Would it not be well to appoint a Committee or Section on "Ways and Means" for the bettering of our condition, and smoothing the pathway of a downtrodden and much abused profession?

You may recall the plea of my colleague, Dr. Iszard, "for professional organization for certain purposes." His theory may be a little doubtful from a humanitarian standpoint, but probably much good could be accomplished from a commercial aspect. The question is an open one for our prayerful consideration. This is pre-eminently an ultra-business era, and the commercial feature of our professional calling will require close scrutiny, and the sooner we awake to that fact the better. My advice is to adopt business methods, combined with tact, at once. As a "physician is a physician" to the general public; ability and brains count for naught.

The Camden City Medical Society is responsible in a great measure for our most elegant water supply, which has placed us in the front rank of the healthiest cities in the eastern middle states. Since the advent of our artesian water supply typhoid fever has turned a cold shoulder to us, and has cut our acquaintance very effectually. This very fact is sufficient to cause our noble bosoms to heave with self admiration for "Pro Bono Publico." But may I not inquire: How long will this assinine suicidal policy be continued to further deplete our legitimate incomes? I might also refer to the almost total annihilation of malarial affections in our city, due entirely to improved sanitation and

zealous efforts of our excellent board of health and city council. And to the education of school teachers, by a series of lectures by prominent physicians, to detect contagious diseases, thereby assisting the medical inspectors of schools to make an early diagnosis.

Two years ago our board of health saw fit to appoint a corps of vaccine physicians, of which I had the honor of being a member, whose efforts stamped out and put an immediate check to the alarming spread of smallpox in our city. Might I not here inquire if this very measure did not seriously affect the pecuniary interest of the practising physicians who were not employed by the city to do that special work, which resulted in so much "Pro Bono Publico"?

In a general way I would call your attention to the gratuitous education of the public through the daily newspapers, many of which now employ a physician, whose duty it is to give medical advice, and answer questions relative to the treatment of all the diseases mentioned in the encyclopedia. This education is still further enhanced by certain members of the profession, who endeavor to make a favorable impression upon their patients, by describing in detail the name, action and physiological effects of the drugs prescribed, and then taking a textbook allow the patient to read up his own case to prove the ability of said physician. I am here reminded of Dr. Ridge's reply to an inquisitive woman concerning the action of certain drugs, viz: "My good woman, life is too short for me to attempt to give you a medical education." From a pessimistic standpoint I would emphasize the fact that there is a marked lessening of diseases in general throughout our city and county, due to the causes already referred to. The practice of medicine is daily becoming more difficult; the public are more exacting in their demands upon our services, and it requires greater tact and skill and also less religion to cater to their wishes. We are contending with very many local conditions which are directly a benefit to the public, but are a serious menace to the profession. There is scarcely a corporation or industrial plant in our city which does not employ a physician to attend to the wants of their numerous employees.

Then comes that abomination, the "lodge doctor," who agrees to attend each member of a certain order at \$1.00 or \$1.50 per year, including medicines, with the hope of ingratiating himself with the other members

of the family; whose patronage rightly belongs to his fellow practitioner.

The free clinic evil cannot be overestimated or too severely condemned. I have recently read in the daily papers an article headed "12,000 patients treated during the past year at the Presbyterian Hospital in Philadelphia." When you stop a moment to consider, then multiply these figures by the number of hospitals and free dispensaries in this country, you will readily appreciate that "Pro Bono Publico" is flourishing at a tremendous pace, while we are reaping the harvest—"Nit." But just as long as the principal colleges and hospitals are suing for, and inviting patrons with open doors, regardless of their ability to pay, we can expect this evil to continue.

The marked influx of new physicians to this recognized "Mecca for doctors," irrespective of the labors of the much abused Board of State Medical Examiners, must not be lost sight of. Since the year 1885 the population of our city has doubled itself, while the number of practicing physicians has tripled itself. And now for one of the greatest negative points which is seriously affecting the practice of medicine in this city. I refer to the physicians who own drug stores; who prescribe for and visit patients gratuitously for the sole purpose of selling medicines. (Having had a drug store myself, I claim to know whereof I speak). I have two propositions to offer relative to this class of physicians. First, that we ostracize them from membership in all medical societies, if they persist in this noxious practice to the detriment of their fellow practitioners. Second, if we do not adopt measures for our future protection and welfare, then let us shake off this farce of medical society restrictions, which has been a menancing lash over our heads, and let each one pursue the practice of medicine irrespective of that beautiful golden rule, or that badly violated code of medical ethics.

I shall not presume to point out many more causes and effects, which have resulted directly or indirectly "Pro Bono Publico"; but I cannot refrain from referring to the fact that our dealings with one another are oftentimes responsible for the sad plight we are drifting into. The keen perception and the unmitigated audacity of several would-be specialists, who are members of this Society, has been finely exemplified during the past six months, when they persisted in recommending operations on four of my patients without even making the nec-



essary examinations for a diagnosis. As long as the present rate of competition exists, when each one is willing to sell his services to the lowest, instead of the highest bidder, we cannot expect any improvement from a pecuniary standpoint. The history of medicine furnishes very few instances of physicians who became wealthy through the practice of their profession. A very small percentage of our present practitioners have been favored with an inheritance or a wealthy marriage, while the majority of us are struggling for a legitimate livelihood. Therefore, would it not be a wise procedure to devote a liberal portion of the meeting hours to the discussion of matters which will aid us in a material sense? Surely this must appeal to every practitioner within the hearing of my voice. I claim that a serious, actual condition, not a theory, confronts us today. If all of our time and energy shall be devoted entirely "Pro Bono Publico," as they have in the past, then it behooves us as a medical body to have such legislation enacted as will pension the members of our profession for life, as a reward for the public benefactions that have resulted from untiring efforts to preserve the lives and interests of our citizens, by the advanced steps taken in preventive medicine and sanitary science.

As a plea for the necessity of taking such a step, I would invite you to analyze the history of the physicians who have died in our Society during the past quarter of a century, and learn what enviable monuments have been erected to their name and fame. I am free to confess that I am heartsick when I stand and read upon the tombstones of my former colleagues such an epitaph as "Erected to the sacred memory of Dr. ———. A most skillful and beloved physician, who has left the handsome legacy of \$40,000 to \$50,000 of uncollected bills." How many of us living practitioners are now laying the foundations which will entitle us to similar epitaphs when we shall pass over the beyond? Do I hear some member criticizing the business ability of our deceased brethren? If so, I would respectfully remind such individuals that the practice of medicine is necessarily a part of the credit system. And the physician who does not ornament his black list with a host of dead beats, must surely be a veritable Shylock. In conclusion I can but enter this solemn protest against the ruin and disaster confronting us; and trust that my professional brethren may wake up, ere it is too late to prevent many

of us from being compelled to abandon our professional calling, and to seek other means of earning a livelihood.

### SOME PRINCIPLES OF THE DIAGNOSIS OF INCIPIENT INSANITY.\*

BY WILLIAM H. HICKS, A. B., M. D.,  
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Newark, N. J.*

To be able to detect the early symptoms of the instability of mental equilibrium one must understand the philosophy of the human mind and have a broad and comprehensive knowledge of the principles of normal psychology. Pathology and morbid anatomy cannot be understood by one who is ignorant of normal histology and physiology. True, we cannot write the physiological correlate for all psychical phenomena; but there are certain fundamental laws underlying the activities of mental life which the general practitioner would find it worth his while to master.

In the realm of nature all things—all activities—conform to definite and immutable laws. Many of these laws scientists now understand and have formulated in terms of mathematical precision. The astronomer has scanned the heavens and read the glories of infinity; the geologist has studied the earth and found "tongues in trees, books in running brooks, sermons in stones and good in everything." Old ideas have perished in the retort of the chemist. A new world has been discovered by the microscope; everywhere has been found the infinite; in every direction man has investigated and explored and nowhere in earth or star has he found the least interference with the eternal majesty of nature's laws. To this the operations of the mind afford no exception. Spencer says, "Psychical changes either conform to law, or they do not. If they do not this work—(meaning his psychology)—in common with all works on the subject is sheer nonsense."

The doctrines of metaphysicians, idealists and transcendentalists have each and all had their day and the vast tomes of Hamilton, Berkeley and Kant are read with the same idle curiosity that prompts the perusal of works on causticity and the phantom philosophy of the schoolmen. The study of psy-

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chology from the physiological and objective viewpoint by the application of modern scientific methods has resulted in the accumulation of a great mass of scientific and statistical data. These data Spencer, James, Ladd, Maudsley and many latter-day writers have generalized into mental laws, harmonizing with the doctrine of evolution.

That the growth and development of the mind is a gradual progress from the simple to the complex is abundantly shown in the history of a child. The harmonious adjustment of psychical changes to external environment marks the successive steps in the evolution of a normal mind. Perverted psychical changes are manifested by disharmonies of the individual with his environment—disharmonies expressed in common parlance by the words "queer," "peculiar," "excentric," "impulsive," "lunatic." These disharmonies are often numerous and intense, destroying mental equilibrium and the intellectual cosmos and producing mental chaos and psychical anarchy—delirium, confusion, incoherence, illusions, hallucinations, delusions and all sorts of insane impulses; suicide, homicide, pyromania, etc.

If the doctrine of evolution is true, mind can be understood only by observing how mind is evolved. If the human brain marks the highest reach of organic evolution, a complexity of structure and function reached through modifications upon modifications accumulated during an immeasurable past, through the processes of adaptation, then it follows that the intricate complexity of the human mind, which is the correlative of the structure and function of the brain, must have arisen by degrees. The changes through which the body passes in its development from the comparatively simple and homogeneous embryo to the complex body of an adult are paralleled by the like development of the mind, beginning at the birth of the individual and progressing from the simple to the complex.

Under its simplest form reflex action is the sequence of a single contraction upon a single irritation. A compound reflex action is made up of a number of simple reflexes. Then follow in the order of their natural evolution compound co-ordinated reflexes, the instincts, memory, reason, feeling and will. Spencer holds that a vague manifestation of this sequence marks the dawn of sensitive life and is the lowest form of psychical consciousness.

If the point of a needle be drawn across a muscle, contraction of the stimulated muscle

will ensue. This is an illustration of a simple reflex action. If a pencil be placed in the hand of a sleeping baby, the fingers of the child will close around the pencil. This is a compound reflex act involving as it does an entire group of muscles. Thrust your fist suddenly and violently within a few inches of your friend's face, and he will close his eyes, **duck his head, and throw up his hands**, even though he knows, as he will tell you later, that you would not strike him. This is an example of compound co-ordinated reflex action. Instinct is a compound co-ordinated reflex action rendered more highly complex and purposeful. "A fly-catcher," says Dr. Carpenter, "immediately after its exit from the egg has been known to peck at and capture an insect—an act which requires a very exact appreciation of distance as well as power of precisely regulating the muscular movements in accordance with it. This act does not presuppose knowledge on the part of the fly-catcher, but the highly developed and complex nervous mechanism capable of reflecting a visual stimulus along many neural paths simultaneously and successively resulting in automatic purposeful co-ordinated action. So much for instinct.

Memory, says Maudsley, is past experience registered in the higher centres of the brain; recollection, the recalling of these experiences into consciousness; feeling, the pleasant or painful nature of these experiences; reason, the grouping and comparing of these recollected experiences one with another; will, the conscious impulse at the end of reasoning; ideas, on the motor side are conscious intuitions of past movements, on the sensory side they are images of past experience called into consciousness by appropriate external stimuli. Therefore every iota of knowledge that forms the constituent parts of that vast and intricate mechanism of consciousness, called the mind, must reach consciousness through the five senses, the natural channels of experience. Hence the character of a person's mental individuality will depend upon the nature of his physical organization and of his environment.

Insanity is viewed by many practitioners too often in a narrow sense. They have the idea that an insane person must have illusions, hallucinations, or delusions; must be profoundly depressed or greatly excited or agitated; must be confused, incoherent and have a disordered memory; must have suicidal, homicidal or destructive impulses. Yet a person may be insane without mani-



festing any of these symptoms. Let it be remembered that insanity is a disease characterized by the accidental and more or less prolonged disordered state of the developed self or ego—a sudden and more or less prolonged departure from the individual's habitual standard of thought, feeling and conduct. To arrive at an intelligent appreciation of this definition, I find it impossible for me to escape taxing your patience with a bit of psychological analysis of the empirical self or ego. In this connection I cannot do better than quote, at length, with slight changes from the original text, Prof. James.

In its widest sense, a man's self is the sum total of all that he can call his, not only his body and his psychic powers, but his clothes and his house, his wife and his children, his ancestors and his friends, his reputation and his work, his lands and houses and bank-account. All these things give him the same emotions. If they wax and prosper, he feels triumphant; if they dwindle and die away, he feels cast down.

That organized psychic cosmos constituting the individual ego, the result of the harmonized experience of a lifetime, for convenience of study, may be divided into three parts, according to Prof. James, relating to:

1st.—Its constituents.

2nd.—The feelings and emotions they arouse.

3rd.—The actions to which they prompt—self-seeking and self preservation.

The constituents of the developed self may be separated into four classes:

(a)—The material self.

(b)—The social self.

(c)—The spiritual self.

(d)—The pure ego.

(a)—The Material Self.

The body is the innermost part of the material self. The clothes come next; and most people, if asked to choose between having a beautiful body clad in raiment perpetually shabby and unclean, and having an ugly and blemished form always spotlessly attired would prefer the latter state. Next our immediate family is a part of our selves, our father and mother, our wife and babes. When they die a part of our very selves is gone. Their wrong is our shame. An insult to them arouses our anger.

Our home comes next. Its scenes are part of our life; its aspects awaken the tenderest feeling of affection, and we do not easily forgive the stranger who finds fault with it or treats it with contempt. We all

have a blind impulse to watch over our bodies, to deck them with clothing or ornament, to cherish parents, wife and babes and to find for ourselves a home of our own which we may live in and improve. An equally instinctive impulse drives us to collect property and the collections thus made become with different degrees of intimacy a part of our empirical selves. There are few men who would not feel personally annihilated if a life-long construction of their hands or brain was suddenly swept away.

(b)—The Social Self.

A man's social self is the recognition which he gets from his mates. We are not only gregarious animals, liking to be in sight of our fellows but we have an innate propensity to get ourselves noticed. No more fiendish punishment could be desired than that one should be turned loose in society and remain absolutely unnoticed by all the members thereof.

"Properly speaking," says Ladd, "a man has as many social selves as there are individuals who recognize him and carry an image of him in their minds. To wound any of these images is to wound him." "Who takes away my purse, steals trash, but he who filches from me my good name takes that which ne'er enriches him and makes me poor indeed." These imaged selves fall into groups. A man shows a different side of himself to each of these different groups. Many a youth who is demure enough before his parents and teachers, swears and swaggers like 'a pirate among his tough young friends. We do not show ourselves to our children as to our club companions, to our office patients as to the dispensary and out-door poor, to our superiors in authority or to our inferiors as to our friends.

These many selves may be discordant so that it is undesirable for one group of acquaintances to know the self shown other groups or they may be in perfect harmony—a tender father may be a stern soldier or prisoner. A man's fame, good or bad, and his honor or dishonor are names for one of his social selves. The particular social self of a man called his honor is one of those images above mentioned; his image in the eyes of his own set. Thus, a layman may abandon a cholera infected city but such a step would be dishonor to a doctor or a minister. A soldier's honor requires him to fight where another man should run away. What may be called clan-opinion or club-opinion is one of the strongest forces of life—the

thief must not steal from another thief; the gambler must pay his gambling debts.

(c)—The Spiritual Self.

By the spiritual self so far as it belongs to the empirical ego I mean a man's inner or subjective self—those moral sensibilities and promptings of conscience which usually assume a mystic or religious nature. By many people this spiritual self is given precedence over all other selves. The material ego and the social ego are mere menials to serve and purify the spiritual ego. Such people are devout, philanthropic, altruistic, self sacrificing. They are like the minister in Goldsmith's "Deserted Village," of whom it is said:

"To others, his heart, his love, his grief,  
are given,  
But all his serious thoughts have rest in  
heaven."

They are too often emotional, credulous, superstitious, living by faith alone, and ask not to see. The finest example of the complete dominance of the spiritual self is afforded by a study of Macaulay's matchless analysis of the Puritan character.

"The Puritans were men whose minds had derived a peculiar character from the daily contemplation of superior beings and eternal interests. Not content with acknowledging in general terms an overruling Providence, they habitually ascribed every event to the will of the Great Being for whose power nothing was too vast, for whose inspection nothing was too minute. To know Him, to serve Him, to enjoy Him, was with them the great end of existence. They rejected with contempt the ceremonious homage which other sects substituted for the pure worship of the soul. Instead of catching occasional glimpses of the Deity through an obscuring veil, they aspired to gaze full on His intolerable brightness, and to commune with Him face to face. Hence originated their contempt for terrestrial distinctions. The difference between the greatest and meanest of mankind seemed to vanish, when compared with the boundless interval which separated the whole race from Him on whom their own eyes were constantly fixed. They recognized no title to superiority but His favor; and, confident of that favor, they despised all the accomplishments and all the dignities of the world. If they were unacquainted with the works of philosophers and poets, they were deeply read in the oracles of God. If their names were not found in the registers of heralds, they were recorded in the book of life. If

their steps were not accompanied by a splendid train of menials, legions of ministering angels had charge over them. Their palaces were houses not made with hands: their diadems crowns of glory which should never fade away. On the rich and the eloquent, on the nobles and priests; they looked down with contempt; for they esteemed themselves rich in more precious treasure and eloquent in more sublime language; nobles by the right of an earlier creation and priests by the imposition of a mightier hand. The very meanness of them was a being to whose fate a mysterious and terrible importance belonged; on whose slightest action the spirits of light and darkness looked with anxious interest; who had been destined, before heaven and earth were created, to enjoy a felicity which should continue when heaven and earth should have passed away."

The Puritans were not insane. They were examples of an unequal and inordinate development of the spiritual self. Their belief was the normal and logical result of education, training and environment.

(d)—The Pure Ego.

Self-feeling. "These are primarily," says Prof. James, "self complacency and self dissatisfaction, the former being manifested by pride, conceit, vanity, self-esteem, arrogance, vainglory; the latter by modesty, humility, confusion, diffidence, shame, mortification, contrition, the sense of obloquy and personal despair."

"The normal provocative of self feeling," says Prof. Bain, "is one's actual success or failure and the, good or bad, actual position one holds in the world. A man with a broadly extended empirical ego, with powers that have uniformly brought him success, with place and wealth and friends and fame is not likely to be visited by doubts or diffidence about himself save from the effects of internal disorders. Whereas he who has made blunder after blunder and still lies, in middle life, a failure at the foot of the hill is likely to evolve a normal self distrust and shrink from trials with which he could readily cope."

So we see that instead of possessing a duality of self—a good and an evil self, a Dr. Jekel and Mr. Hyde—we have many selves among which is carried on a perpetual rivalry and conflict.

One is often confronted by the necessity of standing by one of his empirical selves and relinquishing the rest. Not that he would not if he could, be both handsome and well dressed, a great athlete and make



a million a year, be a socialist and a plutocrat, be a wit and a lady-killer as well as a philosopher, a philanthropist, statesman, warrior and African explorer, as well as a tone-poet and a saint. But the thing is impossible and these many selves must be so harmonized and subordinated that that one will wax and grow which is most adapted to its environment.

A person of weak vitality, little education, meagre capacity, penniless and without friends, a mendicant, without resources of self support, is unable, in spite of aspirations, to force himself to the forefront as a great Shakesperian actor or constitutional lawyer.

Now the reader has doubtless asked himself several times what all this has to do with the diagnosis of insanity. It has all to do with it, for the earliest symptoms of insanity are manifested by a change in the habitual standard of the individual's conduct and feeling. These symptoms can be ascertained only by an expert after a careful comparison of the patient's present conduct with his normal habits of conduct in the past.

I have, in a brief and fragmentary way, endeavored to point out a few principles which underlie the law of psychical growth in a normal individual. A marked departure from these elements of the empirical self or ego, without an adequate cause, indicates a pathological disturbance of that adjustment of internal relations to external relations, that altered correspondence of psychical changes to external environment which characterizes the development of insanity.

Having prepared the way by a short statement of a few of the facts of mental evolution we will now study the phenomena of mental dissolution. As Spencer, in his matchless work on the principles of psychology has generalized all the processes of psychical development under one law, that of evolution, so Bevan Lewis, the greatest living authority on insanity, has generalized under one law the processes of mental decay—that of evolution reversed, dissolution—involution.

Our feelings are the expressions of the most complex states of consciousness—the exponents of an almost infinite experience, psychical and physiological, and are consequently highly unstable, and most easily disturbed. In all forms of insanity the feelings are primarily affected, resulting in mental depression—psychalgia. This painful mental state is particularly marked in the pro-

dromal stages of mania, paresis, paranoia and melancholia.

The depression, I quote Grissinger, which precedes insanity is distinguished from the mental pain experienced by healthy persons by its excessive degree, by its protraction, by its becoming more and more independent of external influences and by the other accessory affections which accompany it.

The beginning of all forms of mental dissolution may be summed up in the word melancholia, insanity of the feelings, where there is mental pain or emotional distress apart from obvious intellectual disturbance.

Of course, the intellect suffers, but at first it is only weakened. There are no delusions; reason still asserts herself; memory is not impaired; volitional control is not withdrawn. In the words of Bevan Lewis, the patient may long have struggled against the gradually increasing depression and may have concealed his actual state from the notice of relatives and associates. A universal gloom pervades his mind and a distaste for all previous avocations and interests declares itself; exercise and all forms of recreation no longer appeal to him and a dull uniform level of indifference is engendered towards the outside world. Life has lost its freshness—nature presents him with no delights and whatever there be of beauty or happiness or gaiety around but serves to emphasize his gloom as he feels their want of kinship to his nature. With still greater emphasis can he say with the poet:

“But yet I know where'er I go

There has passed away a glory from the earth.”

Retiring into the solitude of his own self-consciousness he broods over his alien state—often fully cognizant of the nature of his malady. But though the object-world has lost for him its pleasures, and thought and feeling with regard thereto are labored, restricted and wanting in vigor—yet subjective states of introspection, of self analysis are keenly dominant, and this self inflicted torture grows apace as sleep is lost, as defective appetite and sedentary habits retard the processes of nutrition and repair, and sap the foundations of his mental vigor. His empirical selves undergo changes more or less radical in character according to the degree of mental dissolution. The material self, the social self and the spiritual self are often profoundly disturbed and greatly confused, so that a comparison of the patient's present with his past shows a marked

departure from his former habits of thought, feeling and conduct.

As this morbid state of feelings and emotions deepens there is a still greater wane in object-consciousness; the jaundiced view of his environment is no longer correctly interpreted. Doubt arises, distrust prevails and he becomes suspicious of those around him. He loses interest and energy, cannot hold his attention, takes little notice of his personal appearance, his home and family, and gradually destroys his social self by indulging in conduct entirely at variance with his former habits.

As the dissolution proceeds, the intellect becomes involved, leading to illusions, hallucinations, delusions, failure of personal identity, double personality, reintegration of morbid psychical processes and the genesis of a new identity on the one hand, or complete psychical disintegration and dementia on the other.

The new identity may be an angel of light or a fiend of darkness, a plaintive melancholiac or howling maniac, a scheming, conceited paranoiac, or dull, mindless paretic.

The foregoing symptoms of mental dissolution may be summed up as follows:

1. Mental pain—depression.
2. Loss of interest and energy; lack of decision—vacillation.
3. Inattention—absentmindedness.
4. Decline in object-consciousness.
5. Rise in subject-consciousness.
6. Decline in the relational elements of the preceptive powers.
7. Marked fatigue of conscious effort.
8. Indifference to welfare of the life-long cherished ideals of the empirical self.
9. Lessened seriality of thought—incoherence—forgetfulness.
10. Change of disposition, affections and habits—suspicious, deceptive.
11. Blunted sense of the social, moral and ethical proprieties.
12. Restricted volition—false judgment.
13. Delusions, hallucinations, destructive impulses, etc.
14. Genesis of a new, confused or illogical ego.

Writing in the "Young Man," Sir Frederick Treves says: "Genius is some sort of neurosis, an uncalculated nervous disease. The few men of genius I have met were exceedingly impossible persons. They are certainly entirely out of place in the medical profession, where even cleverness is not to be encouraged. Indeed, of all desperately dangerous persons the brilliant surgeon is the most lamentable. Cleverness finds its proper field not in the operating theatre, but at the Egyptian Hall."

## MEDICAL SOCIETIES AND PREVENTIVE SANITATION.\*

BY THOMAS N. GRAY, M. D.

The majority of medical societies state as their objects, the social welding of the members and the discussion of medical topics, with a view to improvement and advancement. To these might well be added, discussion of sanitary matters, with the object of helping in the work of the prevention of disease.

In discussing the part medical societies should take in preventive sanitation, the duty of the individual physician must be the basis of what the society, of which he is a component part, should do in a larger way. Every physician feels as great a demand upon him to prevent the entrance of disease into the homes of his patients as he does to treat the disease after its entrance. This demand upon us, as individuals, we meet to the best of our ability as a part of our routine, when, on finding a contagious or infectious disease in the house, we on our first visit, give the necessary directions to prevent, if possible, the others in the house from becoming infected, and to keep the contagion or infection from being carried to other houses. In addition to this we, by voice, in the houses we visit and in the office, give occasional dissertations on the general and specific character of contagions and infections and how to guard against them, together with homilies on the laws of health. Not infrequently, too, an article appears in print in the medical journal or local paper from the pen of a physician, on sanitary lines. But these household talks and occasional papers do not mould public opinion, by educating it in a large way, nor can they, because a change of view, on a given subject, on the part of the public, cannot, except in rare instances, be brought about by individual effort, while much can be done by organized effort.

The object of this paper is to show, if I can, how medical societies may, by doing in a large way, what the individual physician does in a small way, educate the public, aid in shaping legislation, and each, in its own locality, by keeping in close touch with the health board, bring about a properly composed board, which shall enact proper ordinances and see to their enforcement. Now, this work is done by sanitary associations,

\* The address of the retiring President of the Practitioners' Society of the Oranges, 1904.



and any good results which have been attained, are accredited to them, whereas medical societies should occupy a large place in the advancement of preventive sanitation.

That the public needs education is admitted. Fear of or indifference to a contagion or infection varies in different localities. In some parts of the world as much indifference is shown toward smallpox, cholera and yellow fever, as this locality shows toward tuberculosis, measles or whooping cough. Conversely this community has a deeply grounded fear of cholera and yellow fever, diseases not probable ever to visit it, while having no fear of those which I have mentioned, which are always amongst us, a striking proof of the truth of the adage "familiarity breeds contempt." This aberration of the fear centre, organized medicine could and should correct, by teaching in season and out, that every contagion or infection is a thing to fear and to be kept away. And this correct view is essential in preventive sanitation or preventive medicine, as no health board, be it of the best, can enforce an ordinance in the face of public opinion.

Not only in local sanitation should we in our societies make ourselves felt, but also in that sanitation which pertains to the entire State. And there is need of it, for legislatures are notoriously neglectful of legislation looking to a conserving of the public health, passing in haste bills involving thousands of dollars of expenditure in other directions, but scrutinizing closely, temporizing on, and frequently pigeon-holing or defeating those relating to health, when the cost involved is small as compared with the good to be accomplished. In our own State we see delay in the building of a State sanatorium for tuberculosis, and an epileptic village doing but a small part of the work it could do, because of inadequate buildings and means, and, in the legislative session of 1904, a bill providing for the manufacture by the State board of health of diphtheria antitoxin for the benefit of the public was killed. Should not a legislature give attention early to bills for the public welfare? Should not an organized profession take a hand in the lobby as well as the railroad man and the promotor?

As constituted at the present time, boards of health are more frequently composed of men without sanitary knowledge rather than of those who possess it. This is the result of the course commonly pursued of making appointments on the board the reward of party work. As long as our political system

remains as it is, this will continue to be done, unless the medical profession can influence public opinion to the point of demanding that membership of a board of health shall rest upon qualifications, not on political service. A long step forward has been taken in the passing of the law requiring that appointments of health inspectors shall be made from an eligible list, such list being the result of an examination of the applicants as to their qualifications for the work. This, however, the medical profession cannot claim credit for. It can, however, claim the credit, if it can bring about properly constituted health boards. When this event transpires, we may hope to see in such a community as this, tuberculosis, la grippe, pneumonia, measles and whooping cough classed among the diseases to be reported, as well as the plague, yellow fever, typhus fever and cholera, and not see the former class treated as though they were the tropical and occasional visitors, and not as they are in reality, the yearly, monthly, daily and hourly scourges of our homes.

Every community should be protected against tainted or drugged meats and contaminated milk. Certain it is that food products excluded from places where inspection is carried on, will be unloaded on the places where there is no inspection, and certainly, a sufficient number of outbreaks of typhoid fever, scarlet fever and diphtheria have been traced to milk, to warrant a demand that every locality should have an inspection made of the milk at its source and jurisdiction over the dairies from which it comes. Vicious and dangerous patent and proprietary medicines, those for instance containing morphia, cocaine or alcohol, hold menace enough to warrant stringent legislation against their manufacture and sale. Street sprinkling, as at present carried on, is done solely for comfort, while the public has the right to ask that it be done as a sanitary measure to prevent the distribution of disease. To reach this end municipalities should sprinkle all the streets all the year. A daily medical inspection of school children is one of the most important features in the task of detecting the first case or cases of a contagious disease, and yet how ignorant the average community is of its necessity. The carrying on of this inspection lies with the boards of education. Here, surely, the medical society can wield a large influence, and can easily convince the taxpayer that money spent in this way is a saving to the pocket, and it is through

the pocket that the public is the most quickly educated.

Many ordinances of a health board are more honored in the breach than in the observance. One only need be stated to prove the assertion. That which prohibits spitting on the floors or platforms of cars, or in public buildings. At present, and practically ever since this prohibition has been in sanitary codes, and public notice given of it, it has been a dead letter. Whoever hears of an arrest for its violation, or if of an arrest, of a fine? Should not a health inspector have as one of his duties a daily ride or rides on the trolley cars, and a daily visit to public buildings? He can cause arrests without attaching odium to himself, it being within his authority and line of duty.

In these days, when the question can be asked, does disinfection disinfect, with the possibility of advancing strong argument that it does not. Is not the arrest of an outbreak of a contagious disease due fully as much, if not more, to the isolation practiced, than to the after disinfection? It is beyond dispute that the only sure means of checking an epidemic, is by means of the isolation hospital and quarantine station, where all those attacked can be cared for, and those exposed kept under surveillance and restraint the proper length of time. Every locality of any size ought to be thus equipped to meet contagion and infection. A county institution will undoubtedly do much good, but will always be handicapped in its work, by its necessarily being located at a long distance from the most of the territory it is intended to protect. Any locality can well afford to establish an isolation institution, and the objection which will undoubtedly be raised by those living near to its proposed location, ought not to weigh as against "the greatest good to the greatest number." Especially is this true, when time will prove to these objectors, that juxtaposition to an isolation hospital is no menace.

In all the lines touched upon, and in the matter of drinking cups, lead pencils and pens in schools, or the overcrowding of or the use of flat-wheeled trolley cars, and in the failure of trolley corporations to establish waiting rooms at transfer points, the public and the boards of health need education. And who is better equipped and adapted to do this than the physician through his society? Medical societies should take an active part in preventive sanitation. They should be thoroughly conversant with the sanitary code in their respective localities.

They should suggest proper ordinances to the health boards. They should keep constantly before the public what a health board should do, and how it should be constituted. They should insist upon the enforcement of *all* the health ordinances. They should watch legislation and suggest legislation, pushing proper bills with all the power they have. Thus will they nullify the present lack of knowledge of the average board member, and the inaction of legislators, until such time as an educated public shall demand prompt and effective legislation on public-welfare bills, and shall insist that ability to fill the office acceptably shall be the only consideration in naming men for members of the board of health.

### INJURIES TO THE VAGINAL TRACT DURING CHILD BIRTH, THEIR SIGNIFICANCE AND CORRECTION.\*

BY EMERY MARVEL, M. D.,  
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One of the penalties that is paid by woman for her elevation to civilization is the greater susceptibility to injury encountered in bringing forth her offspring. The most common accidents resulting from expelling the child are injuries to the vagina and the approximate structures. Abrasions, compressions and lacerations are the principle injuries that claim our attention. In so much as abrasions and compressions seldom, if ever, require attention, unless they be also associated with tears, we may be justified in limiting our consideration to the lacerations. The factors to be considered in the child-bearing act that influences vaginal lacerations are, the form of the vagina, its calibre and direction of its course; the resiliency of its limiting structures; the size of the body being expelled; and the strength of the expelling force. Thomas A. Emmett has called attention to the fact that the agents attendant on the passing of the foetus through the birth canal are analogous to those brought into play by the forcing home of a piston—the point of greatest resistance being at the outlet. Consequently it is the perineum and those structures forming the floor of the pelvis that most frequently give way. Schroeder's statistics show that the fourchette is ruptured in 61 per cent. and the perineum is torn in 34 per cent. of all

\* Read before the Atlantic County Medical Society.



women giving birth for the first time; while the perineum is torn in 9 per cent. of those subsequently bearing children. A disproportion in size between the calibre of the vagina and any part of the foetus, causing over-distention of the muscles; too sudden or too powerful expulsion, not permitting the muscles sufficient time for stretching; a deformity producing too short an angle in the course of the vagina or constriction of its diameter will predispose to the impairment of the vaginal supports.

The problem presents itself, therefore, to every attendant upon a child-bearing woman to avoid these accidents if possible, or if they must be, make them as slight as possible, and see to it that such treatment is given as may correct the damage done and return the victim as nearly as possible to former health. In order to the better study the protection from, and the correction of these injuries, it is well that we familiarize ourselves with the anatomical factors involved. The foetus, being held in the uterine cavity, begins its course through the birth canal as a result of power exerted upon it from above the pelvis. After being expelled from the uterine cavity—the first resistance is at the pelvic diaphragm, which is composed of the recto-vaginal and rectovesical fasciæ; and the levator ani muscles. This diaphragm being perforated by the vagina and rectum. There are two levator ani muscles, one upon each side of the vagina. Each of these arise from the fascia—the white line—beneath the rami of the pubis, and the tuber-ischii and is inserted into the rectum, sphincter-ani and coccyx of its corresponding side. Other muscles to be considered are the transversus perinii and sphincter-ani. The inner edges of the levator ani are intimately associated with the birth canal, being covered only by the vaginal mucous membrane. Hence they form the principal support to the vagina and are first to give way under undue pressure. It is a fact that tears most frequently begin at the weak fourchette and extend in line of greatest pressure, yet it is not unknown for the levator and fibres to be ruptured without a lesion of the mucous membrane.

In view of this anatomical arrangement the greater number of vaginal injuries are inflicted at or near the perineal-body, and it is here that the attendant is best able to protect his charge. If the foetus is disproportionately large a tear is inevitable, but the attendant can so support the parts, and favor the passage of the foetus, as to di-

minish the laceration from what it otherwise would be, or he can direct the location of the tear to the least harmful position. Should the forces be so rapidly or forcibly operating as not to give time for the muscles of the pelvis to relax completely, the progress may be allayed with sedatives, or artificial resistance, such as the force of the hand, applied to the foetus, pushing away from and protecting the perineum from the excessive pressure, thus delaying the advance until the muscles are freely relaxed. When abnormalities exist, they should be studied and remedies applied to best suit the special difficulty.

With all care possible to protect the parts from injury, lacerations do sometimes occur; and then, what is their significance? Is the woman any worse off by having sustained them, and if so when are these evil consequences manifest?

The pelvic diaphragm is so arranged as to give support to the pelvic viscera, and these in turn to the abdominal organs. Any condition bringing about displacement of any of these organs would be responsible for disturbances of their respective functions and the reflex disturbances arising therefrom. Such are the results of these lacerations and the symptoms are usually referable to the organ disturbed.

If the sphincter ani is torn through it is called a complete tear; when not, an incomplete tear. Medium, transverse, lateral or sulcate are terms used to describe special lacerations.

The symptoms are dependable upon the injury and the immediate and remote consequences thereto. When the tear is complete there is fæcal incontinence. The fæces are passing most of the time, and the patient is likely to be unable either to check the flow of fæces or the passage of intestinal gas. Constant soiling of the clothes and audible expulsion of gas form some of her annoyances, while prolapses of the rectal mucous membrane, indigestion and reflex nervous symptoms follow. Transverse, medium and especially lateral tears, anterior or posterior, endanger the support of the levator ani muscle. When its fibres are torn the support to the anus, rectum and vagina are either lost or impaired. The attempt at defecation forces down the rectum, and, with the levator resistance gone, produces a pouching forward of the anterior rectal wall. This dilates, forming a reservoir in which fæces accumulate and constipation is the natural result. Greater effort to expel

this accumulated fæcal mass brings abdominal pressure into play which bears down upon the pelvic organs. A backward and downward displacement of the uterus, ovaries and bladder follows. The local symptoms complained of by the patient are discomfort at the vagina and rectum, and, with the pelvic supports gone or impaired, that which is natural to expect, the feeling of dropping of the contents of the pelvis; or as she most aptly puts it "that everything is dropping out." Then follows that chain of remote symptoms—backache, headache, digestive discomfort and general nervous manifestations. Should the anterior laceration be present alone, the symptoms are more especially referable to the bladder. Dysuria, with other symptoms of cystitis. With the gateway of the vagina gone, the spermatozoa are usually lost and sterility is common. Inspection of the parts will show a posterior or anterior vaginal bulging, or both. These protusions are hernias in principle. The posterior, being of the rectum, is called rectocele; the anterior, being of the bladder, a cystocele. By digital manipulation they can be accentuated, and it is thus that the examination is carried out to determine the exact injury. Pressure with divulging fingers will form the protrusion, and pressure or pinching of the sides will determine the normal resistance of the muscles or the weakness from their lost fibres. It being accepted that whatever lacerations occur beyond those of the skin and mucous membrane, discomfort sooner or later will result. All obstetricians are agreed upon the advisability to repair the injury at the time of its happening. Unfortunately, however, this is not always done by the attendant physician, or if done, it too often fails, due perhaps either to the accumulation of the puerperal discharge in the torn sulcus or the failure to gain perfect approximation of the parts. Whether an attempt is made or not, a recognition of the laceration being present and not corrected calls for surgical attention and should be corrected as early as possible, to prevent more serious subsequent trouble arising from oncoming visceral displacements.

It is too frequently the case that suspicion is aroused only after the remote symptoms are manifest, and then no unreasonable delay should occur before a proper means for repair is inaugurated.

Numerous operations and techniques have been recommended for the purpose of repairing these injuries, but the success, let

the operation be what it may, depends upon one principle—the securing the approximation of the freshened surfaces of the separated anatomical structures. Our conclusion then would be:

1. Vaginal lacerations are the most common injuries met with by the mother in child-birth.

2. Vaginal lacerations produce organic and complex symptoms.

3. Assistance can be given the mother to prevent entirely, or to lessen in extent, her injuries.

4. The only treatment is operative, the earlier the better, the success of which depends upon securing true approximation of the torn parts.

### THE TREATMENT OF ANO-RECTAL FISTULAE.\*

BY A. HAINES LIPPINCOTT, M. D.,  
CAMDEN, N. J.

*Assistant Surgeon, Rectal Department of  
Jefferson Medical College Hospital,  
Philadelphia, Pa.*

*Member of the American Medical Association  
and the Camden County Medical  
Society.*

Tuttle, of New York, defines ano-rectal fistula, as any unnatural channel extending from the skin or muco-cutaneous tegument about the anus, or from the mucous membrane of the rectum into or through the surrounding tissues.

Ano-rectal fistula was described by many ancient writers. It is said to have been the cause of the death of Henry the Fifth, of England, in the year 1422.

In order to stimulate an interest in the paper I may say that medical history tells us that Louis IV. of France paid his surgeon the magnificent sum of \$73,500 for operating upon his anal-fistula.

It is more frequently met with in middle life, but childhood and the aged are also attacked; more frequent in the male than female. In the records of St. Mark's Hospital, London, compiled by Cooper and Edwards, a little more than fifty per cent. of the rectal cases were treated for fistula. I cannot say that the rectal department of Jefferson Hospital will show such a large percentage, yet the disease is very common. Fistula is invariably secondary to peri-rectal abscess. An abscess that opens spontaneously

\*Read before the Camden County Medical Society.



seldom heals; it usually contracts and leaves a tract behind lined with unhealthy tissue.

Fistula may follow the removal of hemorrhoids by the injection method, when the operator has injected into the muscular coat of the bowel; an abscess following the injection. Suppurating dermoid cysts, tubercular infection, broken down syphilitic gumma, penetrating wounds and stricture may also cause fistula-in-ano. But a careful questioning of your patient will invariably establish a history of an abscess.

The relation of tuberculosis to fistula is a question that is now commanding the attention of rectal clinicians. As to whether all ano-rectal fistula are of tuberculous origin is an unsettled question, although many recent writers have taken this view. It is true that ano-rectal fistula is a common complication in the tuberculous. They are found in the weak and run-down patients more frequently than in the robust. They improve under the stimulus of tonics, fresh air, sunshine and forced feedings. The clinical signs in the majority of cases have very much the complexion of tuberculosis. A thorough examination of the lungs should always be made before operating upon these cases; not only to complete the record of the case, but to guide the operator in his choice of an anesthetic.

It will suffice for this paper to make a broad classification of fistulae into complete and incomplete; the words themselves being descriptive. The treatment of all ano-rectal fistulae may be summed up in one word "surgical"—the complete extirpation of the tract and its ramifications, free drainage, cleanliness, fresh air and nourishing food.

Various methods of non-surgical treatment have from time to time been brought to the notice of the profession. They all have had their trial and having been found non-curative, have been rightly discarded for the knife or cautery. It is true that in simple blind external fistula by a complete dilatation and curettement of the tract, followed by stimulation with a silver solution, sometimes a cure has been effected. But I have yet to see the case so treated in which the opening was not too small to allow proper drainage and in which a subsequent incision had to be made to enlarge the mouth of the tract. Therefore, the above statement that surgical treatment is the only efficacious treatment still holds good.

Simple complete fistula may be cured by the elastic ligature, but the process of cure is so prolonged and the suffering of the pa-

tient so great that this method should not be considered. The Matthew fistula-tome or the cautery is sometimes curative. How often what seems to be a simple fistula turns out to be complex. This differentiation is impossible until the main tract is laid open, exposing the parts. Experience has taught us that a cure cannot be brought about without a complete destruction of all unhealthy tissue. If we refer to most textbooks on surgery the operation for the cure of ano-fistula seems an easy performance. Mr. Allingham, of London, says, "It requires more dexterous surgery to cure a bad case of posterior horseshoe fistula than any other surgical affection I know of."

The secret of success is a careful and complete excision of all unhealthy and fibrous tissue and thorough drainage. The procedure of operation and after treatment, as carried out by Dr. Brick and myself at the Jefferson Hospital, I will endeavor to cite you. Of course deviations from these principles are governed by the conditions the case presents. After having had the bowel thoroughly emptied the day before and the patient put on liquid diet, the field is prepared as in any operation. After the patient is anesthetized he is placed in the dorsal position, the legs being held by means of the clover-crutch. The fistula is probed to give the operator some idea of the direction of the main tract. The sphincters are slowly, gently but thoroughly dilated, and the lower part of the bowel irrigated with a salt or creolin solution. Introduce the grooved-director through the main tract and through the internal opening, bringing the end of the instrument out of the anus. With a curved bistoury or scissors divide the bridge of tissue above the director.

It is very important at this step of the operation to cut at right angles across the sphincter muscle thus lessening the danger of fecal incontinence. Preserve as much of the sphincter muscle as possible and do not cut the internal sphincter more than once. If the fistula is of the horseshoe variety and by a complete extirpation much damage would be done to both sphincters, it would be safer to divide the operation; doing a secondary one later. After the tract is laid open incise the back wall of the fistula (the back cut of Salmon), thoroughly curette, and with the curved scissors carefully trim away all fibrous scar tissue. Trim away all overhanging edges, and the outer edge of the wound, leaving a "V" shaped wound having its apex at the back wall of the fistu-

la. Ligate all bleeding vessels. Take plenty of time and carefully explore all points marked by small masses of dark granulations; for these generally mark the openings of one of the ramifications. After thoroughly flushing the lower bowel and the wound pack the latter tightly with iodoform gauze soaked in sterile olive oil. Dress generously with layers of dry gauze fastened in place with a "T" bandage.

This description of the operation is for fistula where there is no marked manifestation of tuberculosis. In these cases the operation differs in the substitution of the Paquelin cautery for the knife. The cautery closes, by searing, all venous and lymphatic tracts, thus lessening the chances of a general tubercular infection. If there is marked lung involvement and the fistula does not seem to be extensive the operation should be done under local cocaine anesthesia, even if it cannot be so complete. Ether, chloroform or ethyl-chloride should not be given.

Of late, in the Jefferson Hospital, we have been using nitrous oxide gas guarded with oxygen. In several cases of marked phthisis-pulmonalis we have used gas without any deleterious effect. I believe these gases have a great field in this class of cases when ether or chloroform would be a dangerous agent. I have had patients under nitrous oxide and oxygen anesthesia for three-quarters of an hour. I have seen nothing but good results from operating on tuberculous subjects. The successful termination of your fistula cases depends largely upon the after-care; not only the care of the wound but of the patient's general health.

After the patient begins to recover from the anesthetic a quarter grain of morphia is given hypodermatically. It is best for the bowels not to move during the first twenty-four hours, after that period there should be a daily evacuation. After twenty hours remove the first packing. Care should be used in removing this packing. It will be found stained and sticking to the wound. It should be loosened by soaking with a solution of lysol or creolin. The wound should be dressed daily, first cleaned with some antiseptic solution, then a small piece of sterile gauze saturated with carbolyzed oil should be very loosely placed in the wound. Healthy granulations will be destroyed or arrested and free drainage interfered with by too tight packing.

After the third day the packing is discarded entirely, washing the wound daily. By

placing a piece of gauze over the wound better drainage is obtained. Watch carefully that the wound heals evenly from the bottom, not leaving any small pockets or sinuses behind. If the granulations seem sluggish or take on a pale oedematous appearance, applications of a stimulating solution of nitrate of silver by means of cotton wrapped on a probe will be found of service. I have seen alterative doses of potassium iodide do good in these cases. Unless the dissection has been a very extensive one your patient should get out of bed after the first twenty hours. As soon as he can walk with any degree of comfort, get him out of doors into the fresh air and sunshine.

The early use of tonics in the form of cod-liver oil or the compound syrup of the hypophosphites together with milk, eggs, and plenty of good nourishing food is indicated.

*The following authors have been referred to:*

Allingham, Brick, Gant, Tuttle, Cooper, Edwards.

### CONSERVATISM IN MEDICINE.\*

BY CYRUS KNECHT, M. D., M. S.,  
MATAWAN, N. J.

This is a time, in the progress of scientific history, of the severest exaction. Viewed in any department of activity you may, you will find the same obtains, whether you apply it to the political, the commercial, the industrial or the professional life. Criticism is ever rife and relentless. Requirements are the greatest, and in all "the survival of the fittest" is the rule. The selective process is ever at work, not only by the public in general, through legal enactments, but also by individuals singly. No one can affirm, with any degree of assurance and without risk, "I will follow this or that pursuit; or this or that profession," before having run the gauntlet of prevailing opinion or fulfilled the required qualifications on every hand. This is indeed the truth and is essential to scientific progress and necessary to meet present demands.

This is strikingly exemplified in *horticultural life*. A demand for a fruit not natural by growth, that was succulent, inviting and palatable was met in the production of the tangelo, a seedless orange of hybrid growth. This science of plant breeding, the hybrid creation of new fruits, as it is termed, is only in its incipency.

\*Read at the Annual Meeting of the Monmouth County Medical Society, 1904.



In the *industrial life*, the application of the principle of elimination with limitation has already been put in force. Steam as a motive power, in a measure at least, is dispensed with, and in its place electric power has been substituted. And before this has thoroughly been installed electricians and scientists are at present endeavoring to solve the question of the generation of the electric force produced by the melting snows on our great mountain-systems and how to apply the same for man's best good. The disintegration of the phenomenal momentum of the Niagara into its thousands of resultant horse power and disseminating the same to the varied industries throughout the Empire State, and, possibly, further is another problem of present agitation.

We see from this brief deduction that an active principle predominates that eliminates the good from the evil with varied degrees of limitation and is productive of that which is most beneficial. In a word a principle that is purely conservative and which in this day is generally applied in science and art. Bearing this thought in mind let us endeavor to apply this principle to our everyday life under the heading of "Conservatism in Medicine."

Before we are fully eligible and licensed to follow the practice of medicine or surgery, we are tried, as it were, in the crucible of scientific truth, heated to a fervor, with the curriculums of academic and collegiate institutions, and the didactics of medical faculties, and finally supplemented with the crucial test of state examining boards. All of which is regarded as sufficient to remove the dross and every vestige of ignorance and disqualification, and properly qualify every aspirant, capable of reflecting the light of brilliant men. This is indeed necessary to maintain the high standard of medical intelligence required by state legislation and in consequence making better physicians. Do you know of any profession where the exactions are so great and the requirements so many as in ours, even at its very threshold? When one is in rank and file, he is supposed to be fully abreast with the current thought of its progress, and in touch with the discoveries which are almost momentary, and recorded in booklets and volumes by the thousand. It can be truthfully said of our profession, that it is one pre-eminently of books. "Who is sufficient for these things?"

*Conservative Surgery.*—To be more definite and practical, let me invite you in the first place to the consideration of conserva-

tism as it may be applied to surgery; in other words, conservative surgery. Nowhere in the whole range of our practice is the principle referred to more manifest or fittingly applied than right here. In fact, here is where it had its primary significance, and justly so, because this science is exact. Our anatomy is wonderful and as unchangeable as its Author. Anomalies are few and readily located. The science of surgery from collated and wide experience has fixed with a certainty, not only the site of growths but their nature, whether benign or malignant. Something more than the qualifications referred to is necessary to enter its portals, and still more than skill and deftness in manipulating instruments. Skill and sound judgment are essentials in this particular calling. To know *when*, *where* and *how much* to remove in a given operation is eminently conservative. It is conservative at one time to remove an entire member to save life, and at another time a minimum of tissue to save a part. It would be conservative in the greatest degree if the site of an embolism or a venous obstruction could be located with certainty and an amputation at once be made, instead of waiting impatiently for the line of demarcation, and thereby entailing more or less suffering from septic infection and possibly premature death. An affected eye that might be retained in its orbit, but is removed to save the other eye, is another example of this principle.

If you review the history of surgery, as it relates to the treatment of wounds you will find that the open treatment was formerly advocated. Sanious and ichorous discharges were tolerated and sloughing encouraged. Wounds were poulticed and granulations were stimulated with caustic applications. How radically wrong and different from the treatment of to-day, and what a gross neglect! Conservative surgery, as we understand it, abhors pus with the same resentment as nature does a vacuum. The less the better! The smaller the quantity the sooner the process of repair is completed.

Time-limit, in operating, may and may not be of moment in the application of this principle. It certainly was in pre-anaesthetic days and in certain conditions is so now. Time is certainly of some concern to an operator with his patient in the open air, on the battlefield or beside a railway with contaminating surroundings. There is quite a difference if you have your case in an amphitheatre and, better still, in

an operating room, with an aseptic environment and all the paraphernalia to prevent germ invasion.

Time without limit may be a necessary factor in bringing about beneficial results and may be demanded of us. And as far as the patient's future welfare is concerned, may be conservative. Three months were allowed me in treating a case of compound complicated fracture of the left radius and ulna at the wrist. The patient, a lad of ten years, was exposed in mid-winter, with the thermometer  $3^{\circ}$  below zero, lying unconscious on the ground for three hours, with the radius severed from its carpal articulation and protruding through the integument. The head of the ulna was fractured. Within the time mentioned I amputated a gangrenous finger, depleted the back of the hand daily ten to twelve times at one sitting until collateral circulation was established. The radius was resected for two inches and the head of the ulna was removed as a last resort. At the end of said time, in making my last visit, I found the little fellow cutting a log with vicious strokes, using all he had of both hands. We can mention in passing that many a finger has been sacrificed, which could have been saved only for the want of time, and it is in such cases as these that the conservative principle can be demonstrated most effectively.

In considering the element of time, permit me to refer to it in our obstetrical work. With a lingering primipara and an impacted head, besides other cases demanding our time, it is often hard to resist the temptation to apply the forceps. Too much haste in their use, and in the hands of experts too, have been followed with lacerations requiring a subsequent trachelorrhaphy or a perinorrhaphy. Again, with the best of care and skill a solution of the continuity of the pelvic floor may be caused which is frequently followed by a cystocele or rectocele. Let us give our patients ample time for conservative results.

*Antiseptics.*—The one great factor in bringing about such satisfactory results in surgery, which has opened up many avenues for investigation, is the use of antiseptics and the antiseptic technology. This, above all else, has made surgery what it is to-day. Whatever good has been accomplished by the conservative surgeon is due to the application of antiseptics in his work. It has given a wider amplitude to his investigations and every organ of the body has been interrogated and manipulated with freedom.

*Anaesthesia* also has its claim. You recall the old-time straight-jacket. An intractable patient may work havoc and cause disastrous results by his incessant motions, besides foiling the surgeon in his attempted work. Anaesthesia does away with all of this and you can readily see what an aid this is to the surgeon in obtaining results that are conservative. The X-ray is a wonderful adjunct in this respect by lighting up the way and revealing foreign bodies hidden in the dark, and thus limiting the amount of cutting to a surprising degree and thus saving tissue. Besides the great assistance it gives in clearing up a diagnosis. This is well known to all of us; but I can not forbear referring to a case which exemplifies this fact most strikingly, where a renal calculus was suspected. The ray showed a black spot over the right kidney. The kidney, upon being exposed, to all external appearances was healthy. On introducing a large pin a distinct sound was produced and a large calculus was discovered in the pelvis and removed.

The foregoing facts will suffice to show that in the surgery of to-day there is an eliminating principle, with certain limitations, which are productive of the most good. In a word, a principle that is conservative.

*Conservatism in Medical Practice.*—Now let us turn our thoughts to general practice and note if the same principle obtains. There is something attractive and striking about the term Conservative Surgeon, so much so that those who practice in general medicine should have a term equally distinctive and significant. Has one been given? If not, and I know of none, permit me to suggest the term "Conservative Practitioner." As its fellow, it is one of no little importance and implies some experience, qualifications and sound judgment. Just *when, what* and *how* to meet a disease, and not so much *what* remedies shall be employed, but *what* remedy experience confirms, is certainly conservative. Multiple dispensing is fast becoming obsolete; also shot-gun prescriptions. Both are unscientific and savor nothing but ignorance. The desultory practice, from the empirical to the expectant is no longer tolerated. The one has had its day, the other is fast on the wane.

We are met again with the same selective process. Every decade brings with it a dispensatory much more voluminous. Every year works on *materia medica* and therapeutics become more numerous. Every day our mails are burdened with the literature of proprietary nostrums, and each one of us



is called upon to eliminate the best, and we may again ask, "Who is sufficient for these things?" I venture the assertion that those of us who have practiced the longest employ the fewest remedies and fewer than we dispensed a decade ago.

The fact that every disease has its own etiology has limited medication. Hence we are in so much forced to be conservative in our therapy. If we compare the treatment of some diseases as we once carried it out with that which we now pursue we find that this is obvious. Let us first compare the former treatment of diphtheria with that now resorted to. When I review the treatment I followed in different epidemics I am astounded at the contrast. My first epidemic followed immediately after my graduation. I gathered every available treatment and my armamentarium was immense. The inhalations, the sprayings, the swabbing and applications were frequent. The only remedy we have retained from the old plans of treatment is our reliable friend hydrargyrum—chloridum mite. What a remarkable contrast we have in our antitoxin treatment. We have all adopted it and discarded every other. A few thousand units in the patient's back and a less dose to the other children and a little care and our services are needed no more.

Nowhere in the practice of medicine is the conservative principle as previously set forth, more manifest than in the treatment of diseases with the antitoxins or, in a word, sero-therapy.

Let us take another disease, typhoid fever. In Wood's Library there is a volume devoted to the treatment of continued fevers. Two-thirds of that book is devoted to typhoid. In the American Textbook of Applied Therapeutics, by the same author, comparatively few pages are devoted to this disease. We find from this that the process of elimination had already begun. At one of our society meetings one of our members asked for an account of the treatment of typhoid as carried out by those present. One after another responded in detail. Finally the propounder of the question stated that he had just carried a case through without the use of any medicines, depending mainly upon hydrotherapy and supporting measures. You can readily understand from the physiological effects of hydrotherapy the full import of its mission in the treatment of fever. It not only reduces temperature, but it increases the alkalinity and bactericidal power of the blood and its phagocytic action

also. Its application is therefore effective in various ways, and it has dispensed with a whole catalogue of febrifuges. This is conservatism in an eminent degree.

We had sincerely hoped and expected long ere this to have had something more effective in the treatment of pneumonia than is at present employed, especially so since Sternberg and subsequent investigators have discovered the pneumococcus. But it will eventually come. Every means known to prevent its genesis, its propagation and its distribution are at present employed by the profession, by local board ordinances and state sanitary precautions.

It will not be necessary for me to prove to you that the remedies employed in other diseases are reduced to a minimum, as further proof of the principle which you can very well verify.

After all our greatest expectations are centered in bacteriology, a recent but most effective branch of medicine, and much more so from its intimate relation with every other branch.

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#### CORRESPONDENCE.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

Editorial Department:

George H. Simmons, M. D., Editor.  
103 Dearborn Avenue.

Chicago, March 8, 1905.

*Dr. Richard C. Newton,  
Montclair, N. J.*

My Dear Doctor:—Of course we shall be glad to list the *Journal of the Medical Society of New Jersey*. I did not know until your letter came that it had not been listed. It is our intention to encourage the State journals all we can.

We do not expect to get the endorsement of but very few journals outside of the State journals, in this movement for ethical medicines announced in last week's issue.

Let me congratulate you on the excellent journal you are putting out.

Very truly yours,  
GEORGE H. SIMMONS.

Hoboken, N. J., March 8th, 1905.

*My Dear Dr. Newton:*

I was glad to see your editorial notice in the February issue of the *Journal* in reference to the Society for the Relief of Widows and Orphans of Medical Men of New Jersey. While this is the 23d year of the Society's existence its membership already numbers 287. In these 23 years it has been the means of giving *at once* help to the widows of 66 deceased members.

While its usefulness is steadily growing, the permanent fund is also growing and makes the Society a permanent organization. The self-sacrificing devotion of its board of trustees is especially to be commended. They wish to extend the benefits of the Society to every physician in our State.

Applications for membership may be made to the secretary, Dr. Charles D. Bennett, 167 Clinton avenue, Newark, or to the president, Dr. Charles J. Kipp, Newark.

I am yours truly,  
J. H. ROSENKRANS.

To Dr. David St. John,  
Hackensack, N. J.

Dear Sir:—During a certain conversation over the telephone last July you emphatically stated that you could not sanction or countenance my consulting an osteopath, saying that you would be unable to continue with the case if I did so.

I, at the time, took great exception to your stand, and I take this occasion to offer you the most thorough and complete apology for having doubted the wisdom and correctness of your attitude.

My experience with osteopathy has not been with obscure, unknown practitioners of some treatment masquerading as osteopathy, but with men who are among those most prominent in osteopathic circles, and I wish to say that it is my deep conviction, based on observation of their methods and treatment that osteopathy is simply a species of ordinary massage absolutely incapable of accomplishing more than can be done by any regular masseur. In the case I took to these osteopaths for examination they said that there was a dislocation of the vertebra, and proceed, so they said, "to snap it back into place."

Subsequently the following gentlemen: Dr. Charles L. Dana, Dr. Dudley D. Roberts, Dr. Lewis S. Pilcher, Dr. Walter Truslow and yourself diagnosed the case as infantile paralysis, a bacterial disease causing inflammation of the spinal cord and paralysis. I wish to emphasize the fact that these osteopaths diagnosed the disease as due to a dislocated vertebra, which, unfortunately, is prevalent enough to be readily recognized by every regular medical practitioner. Apropos of a dislocated vertebra, I attended the hearing in Albany on Wednesday on the bill to legalize the practice of osteopathy in the State of New York. Dr. Robert T. Morris, of New York, defied any osteopath present at that meeting to deflect a vertebra, which he had there for experiment, one-fifteenth of an inch. There was no response.

During the latter part of our summer in your town I no doubt gave many of our friends and acquaintances favorable impressions of what osteopathy was accomplishing. You have my full sanction to publish this letter as a complete and unreserved retraction.

Very truly yours,  
RALPH M. HELMER.

104 Gates Ave., Brooklyn.  
March 4th, 1905.

The above letter fully explains itself and we are glad to give it room. Especially as we also give room to Dr. Shelton's case in which osteopathic treatment evidently did good. These two cases taken together afford a striking object lesson of three important truths, viz.: Properly applied manipulative treatment should have a wider range in therapeutics than it has heretofore had. Second, the persons now practicing so-called osteopathy are not competent to properly

diagnose and select the cases requiring manipulative treatment, and consequently, have done and are doing much harm by the indiscriminate application of such treatment. Third, it follows from the above that a careful diagnosis should be made in all cases by a competent physician to determine which of them should be submitted to manipulative treatment.—[Ed.]

## Clinical Department.

### MANIPULATIVE TREATMENT OF A CASE OF FIBROUS ANCHYLOSIS.

BY CHARLES H. SHELTON, M. D.,  
MONTCLAIR, N. J.

In the summer of 1893 my son, a pure blonde, aged 4 years, developed a severe synovitis of the right hip joint. Extension, rest and treatment resulted, after one full year, in apparent complete recovery. In December, 1895, a severe traumatism caused a second attack of inflammation in the same joint. This did not yield so well to treatment and resulted in ankylosis and deformity, necessitating the use of crutches for eight years. In June or July, 1903, I consulted Dr. Virgil Gibney about his case. Dr. Gibney said in substance: "Nothing can be done except putting him on the operating table; inserting a knife and severing the contracted ligaments and tendons; forcibly straightening the limb; placing it in plaster and awaiting fixation in a straightened position, which will improve his condition fully seventy-five per cent." The boy was then in poor condition and I proposed awaiting the benefits of a summer in the Adirondacks before subjecting him to the confinement and strain of such treatment.

In the Autumn I decided to submit his case to the manipulations of a practitioner of osteopathy. Owing to distortion at the joint, any attempt at using the leg resulted in pain and prohibitive soreness, and from disuse the muscles of the right leg had become exceedingly atrophied, and the right foot was two or three shoe-sizes smaller than the left one. There was shortening of the limb of about two inches. A few weeks of manipulation resulted in the stretching of the contracted ligaments and tendons; a more natural relation between the head of the femur and the acetabulum; increased nutrition of the muscles of the entire right lower limb and motion without much pain and soreness. After a few more weeks of treatment he voluntarily discarded one crutch—an act which I had often previously urged upon him; but which he could not accomplish. After six or seven months of treatment he discarded both crutches and carried a cane instead, and in July, 1904—less than nine months after his first osteopathic treatment—he one day walked eleven miles over an Adirondack trail with no other assistance than his cane. The following September he learned to ride a bicycle and through the autumn days enjoyed daily spins upon his wheel of ten and twelve miles, besides substituting his wheel for his crutches in going to and from school.



## A CASE OF PURPURA HAEMORRHAGICA FOLLOWING SCARLATINA.

By HENRY A. PULSFORD, M. D.,  
SOUTH ORANGE, N. J.

M. C., a vigorous, well-grown boy of 15½ years, with a good family and personal history, developed scarlatina on February 21st, 1903. The case, though not otherwise severe, was characterized by so much cough, conjunctivitis and headache that I thought it possibly complicated by a co-existing influenza. A purulent otitis media occurred on the second day,—the day of the eruption—discharging through a spontaneous perforation of the drum-head within twelve hours. Both the disease itself and this complication ran a benign course. The temperature at no time reached 103, and at the end of the first week the eruption had faded, desquamation was established and the pulse had fallen to 72. Throughout the second week of the disease the temperature fluctuated between 98.6 and 100.2, a circumstance which I attributed to the persistence of the otitis. There was also during this time a considerable photophobia, quite disproportionate to the amount of conjunctivitis present.

There was no symptom which caused me anxiety, however, until the thirteenth day, when the first purpuric eruption appeared. On the day previous the patient had complained of dull aching pains throughout the body, which persisted through the night, disturbing his rest. At about noon the next day an urticaria appeared on the fore-arms, hands, legs and feet, to which succeeded later, apparently as a result of scratching, a characteristic eruption of purpura. The petechiae varied in size from pinpoint macules to spots three-eighths of an inch in diameter, and were located on the dorsal surfaces of the wrists, hands, ankles and feet. Coincidentally with the appearance of the purpura there were painful swellings of the joints of the hands and feet. There was no unusual rise of temperature. Forty-eight hours later epigastric pains with nausea and vomiting developed, and persisted with but temporary remissions until the patient's death. The same night, after an enema, diarrhoea began. The character of the stools being at first fecal, but after twenty-four hours, distinctly haemorrhagic.

From this time on the condition of the patient became steadily more serious. There were two or three outbreaks of the purpuric eruption, the vomiting was incessant, nothing whatever being retained on the stomach, and frequent, profuse haemorrhages occurred from the bowels. The urine, which had been normal up to the time of the development of gastro-intestinal symptoms, rapidly diminished in quantity, and was found to contain a small quantity of albumin, a few casts and blood cells. On the 20th day of the disease, seven days after the appearance of the purpura, there was anuria, which persisted practically without interruption to the end, just one week later. During this last week the intestinal haemorrhages became less free, finally ceasing altogether. There were no fresh purpuric eruptions, but the incessant vomiting and anuria persisted, hiccough and tympanites developed, the strength failed slowly, and the patient succumbed at last on the

27th day of the disease through failure of the heart action. During the last two days there was a moderate subcutaneous oedema of dependent parts. At no time were there either coma, stupor or convulsions; consciousness remaining unimpaired up to the last moment.

An examination of the blood was made by Dr. Hunt early in the last week of the disease. His report of the conditions found is as follows:

Specific gravity, 1042; color index, 1.5; haemoglobin 43%; red blood cells, 3,440,000; leucocytes, 35,000; polymorphonuclear, 92%; lymphocytes, 7.5%; eosinophiles, .5%; no degenerative changes in the red blood cells.

The above is a typical picture of the blood in anaemia due to haemorrhage.

A blood culture made on the following day, was examined by Dr. Dodge, who reported it free from bacterial growth. On the same occasion I made an observation of the time required for coagulation and found it to be thirteen minutes.

The treatment consisted in the persistent use of gelatin by mouth and rectum, the subcutaneous injection of gelatin solution, and normal salt solution, the administration subcutaneously of adrenalin chloride, 1 to 1,000, 5 minims every three hours, and nourishment, stimulants and anodynes as indicated by the patient's condition. The subcutaneous injections of gelatin were extremely painful, and on the second occasion of their use caused a large ecchymosis, followed by gangrene of the skin over the site of the injection. For this reason they were discontinued. Although the haemorrhages ceased five days before the patient died, I am not disposed to attribute their cessation either to the gelatin, of which but a small quantity could have been absorbed, or to the adrenalin chloride. In fact morphin, which was given subcutaneously in doses of ⅛ gr. to quiet the extremely nervous and restless patient, seemed to do more than any other remedy towards controlling them, and I think their cessation due in a small part to the quieting influence of this drug, but chiefly to the low blood pressure consequent upon the long continued drain of fluid from the tissues through the uncontrollable vomiting, diarrhoea and haemorrhage.

The peculiar interest of the case lies in the rarity of purpura haemorrhagica as a complication of the desquamative period of scarlatina. In my examination of the literature of the subject I have succeeded in finding only 17 reports of such a complication.

A well-known Paris surgeon was charged recently with having caused the death of an army official by leaving a rubber drainage tube in his abdomen. The post-mortem examination showed, however, that the drainage tube had not excited inflammation and was not the cause of death, and the accused was therefore acquitted. But he was immediately served with papers in a second case, charged with the same negligence, the only difference being that the second patient did not die. He contended, however, that his recovery was retarded and that his life was even yet in danger as a consequence of the absent-mindedness of the surgeon.—*Medical Record*.

It is said that the Dowager Empress of China has been converted to Eddyism.

## STATE MEDICAL LICENSES.

The effort to establish and maintain the increasingly high standard for medical practitioners is illustrated by the recent annual report of the State Board of Medical Examiners of New Jersey. This board, like many others in various states, is attempting, with the highest possible measure of justice to all concerned, to regulate the legitimate practice of medicine by demanding a certain somewhat definite preliminary training. In order to procure a medical license in the State of New Jersey the previous training of the individual is taken into account, together with his medical knowledge and his moral character. It is designed that every opportunity be given applicants to obtain the educational credentials necessary for admission to examination. To this end students who have not been able to take a high school course are allowed the privilege of presenting an equivalent degree of education to be determined by the state superintendent of public instruction. In New York State all of the medical schools require at least a high school course or its equivalent for matriculation as a minimum. Such a standard does not appear unduly high, nevertheless it has been shown that a number of medical schools do not maintain the requirements as stated in their catalogues. A mercenary motive no doubt enters into consideration since the success of certain schools depends upon the number of students. New Jersey has done good work in adopting and enforcing uniform entrance requirements, and as the result a better educated class of physicians is practicing in the state than ever before. The medical requirements demand four full years of study of nine months each. Certain concessions are, however, made to physicians applying for license, who have previously been in practice. Five years of practice may be accepted as an equivalent for one course of lectures, and ten years for two courses of lectures. By this means older physicians are not discouraged from changing their place of practice to New Jersey, if they so desire. A step in progress is shown by the fact that two medical schools in one of the large cities have been told that their graduates after 1904 cannot be admitted to the state examinations.

It is not our purpose to enter into the details of this significant report. We commend it to those interested in the general elevation of the standard of medical practice throughout the country, and in the future possibility of a greater degree of co-operation between the various states in the way of the wider interstate exchange of license. The principle involved in this effort which the profession in New Jersey is making is one which naturally has a very wide bearing. There is no lack of evidence that the standard of accepted medical practice is far higher in certain parts of the country than it was ten years ago. What we now particularly need is a greater uniformity, and this in a country, situated as the United States is, is a matter of peculiar difficulty and one which probably can never be so satisfactorily settled as in more closely populated countries. In the meantime, however, if each state takes the matter up seriously, as many have already done, it will do much toward hastening the uniformity of medical education,

which is so manifestly demanded for the best good of the profession.—*Boston Medical and Surgical Journal*, Feb'y 23, 1905.

## OVERPRESSURE IN SCHOOL.

Commenting on the scarcity of cases of chorea in the summer and fall and the abundance of such cases seen in the late winter and spring, Dr. La Fetra, in the *Archives of Pediatrics*, attributes this condition in great measure to overwork in school. During October or November it is often difficult, even in a large ambulatory service, to collect sufficient cases for a clinical lecture on the various phases of chorea. As the seasons proceed, the cases increase slowly in number until about March or April, when there is a sudden rise in the number of those affected. Pale, thin, ambitious children, the majority of them girls, then throng the nervous and pediatric clinics in all stages of the disease. Probably the most important exciting cause, at least in those cases that are not clearly rheumatic, is excessive stimulation of the cortical cells of the brain. This results in the gradual supervention of undernutrition and consequently in overexcitability of these cells. The nature of the stimulation varies. It may be the social excitement of children's parties, long waking hours, a bad fright, great grief, strenuous games, too many or too long school periods, home study at night, or the strain and anxiety of class recitations; or it may be improper food or indigestion; at any rate, the result is much the same. The child's nervous system becomes debilitated, loses its power of inhibition, and manifests the overactivity of weakness. St. Vitus dance is cited merely as one of the extreme types of this nervous exhaustion. In the treatment it is pointed out that careful attention to the number and character of the different subjects, the length of the lessons and the time of study is necessary. Change of study or the alternation of physical exercise, games or manual training with mental effort is desirable; but it must be remembered that change of work, or change from work to play is not rest, although the result may be added interest in the new occupation. Change of employment is not recreation; for all effort fatigues. Children that need especially to be watched during the school year are those of alcoholic, tuberculous or neurotic family history, those that are anemic, those that are growing rapidly, especially girls at the period of prepubertal acceleration in growth, from 11 to 13 years, and those that have recently suffered from whooping cough, measles and diphtheria. Only by the exercise of caution in their school work can such children be prevented from suffering the ill effects of overpressure. Persistent headaches, not due to eye defects, disturbed sleep, morning languor and loss of appetite, are warning symptoms; if they persist after modification of the school regime, the child should be withdrawn from school for three or four weeks, or until all sign of nervous exhaustion has disappeared. Disregard of these early symptoms risks the more serious results of overpressure, such as chorea, neurasthenia, hypochondriasis, hysteria, and even epilepsy and insanity in patients of neurotic heredity.—*Journal American Medical Association*.



## BOOK REVIEW.

CLIMATE AND HEALTH IN HOT COUNTRIES and THE OUTLINES OF TROPICAL CLIMATOLOGY. *A Popular Treatise on Personal Hygiene in the Hotter Parts of the World, and on the Climates that will be met with within them.* By **Lieut.-Col. G. M. Giles, M. B., F. R. C. S., Indian Medical Service (Retd.)** In 2 parts, 184 and 109 pp., 8vo., cloth. William Wood & Co., New York, 1905.

This charmingly written book is, as its title indicates, intended primarily for the non-medical world, and, while the author's experience of life in the tropics would seem to have been mainly in India, the rules of hygiene which he lays down will prove of equal value to any one going from a temperate climate to live in the tropics.

His style is peculiarly lucid, enlivened here and there by a touch of that humor which makes the whole world kin. He divides the work into two parts, the first dealing with the hygiene of life for Europeans in the tropics and the second is a terse and succinct essay on Tropical Climatology.

In his introduction to part one, Colonel Giles says: "A hundred years ago a prolonged residence in the tropics was regarded with well-founded horror. The best the white settler in the lands of the sun dared hope for was 'a short life and a merry one,' but too often the merriment was sadly lacking.

"When Clive's father made interest to get his son a writership under 'Old John Company,' and packed off the troublesome lad to India, he probably regarded it as a last resource, and felt much as if he had signed the youth's doom. \* \* \* Clive, however, being a genius, naturally possessed the originality to modify his habits to his new surroundings, and so survived to become an empire-builder and a hero. Nor was his case exceptional, for looking back on the history of our great dependency, one cannot fail to be struck with the high average ability of the few who survived to attain leading positions.

"Furlough to Europe was almost impossible, and the hills were unknown, but in spite of this, many of these seasoned veterans, who had learned their lesson, lived in the land of their adoption, to a green old age. But the rank and file, who could not or would not learn, died off like rotten sheep."

Colonel Giles points out that the climates of the hotter parts of the world vary even more widely than those of the temperate zone, and the calls upon the physical resiliency no doubt are the chief reason that the stolid Englishman finds his vitality lowered and is unable to meet the greatly increased drain upon his resisting powers. The disregard of the killing power of the direct rays of the sun; the excessive meat diet, enforced by the free use of alcoholic beverages, and the free bodily exercise at all hours of the day common in England are entirely unsuited to the tropics. It has taken Englishmen a century or more to learn this fundamental truth. Ability to meet the environment is an acknowledged attribute of genius. Owing to the generally awakened interest in hygiene the perusal of such books as Colonel Giles's cannot fail to be profitable the world over. And the knowledge that an observance of the laws of proper living will enable Europeans to lead a long, useful and laborious life in India has an important bearing upon the question of proper living anywhere. For this reason, if for no other, the observations of this "seasoned veteran" of the

tropics are of the greatest interest to both lay and professional readers. To anyone intending to change his abode from a cold climate to a hot one or even to travel through tropical regions the book will prove invaluable.

The chapter on the prevention of malaria is the best and fullest in the book, although that on housing and domestic architecture is of nearly equal value. We regret that diet in the tropics is not more thoroughly discussed. The author leaves us to infer that he assumes that some meat is necessary to an Anglo-Saxon living in the tropics. In the chapter on clothing, he makes no mention of linen underwear. A grave omission, apparently, when it is remembered that linen is unquestionably the best substance to wear next the skin in our climate. Patented infant foods, "tinned" (canned) goods, alcoholic beverages and European fashions are roundly condemned. The doctor sticks manfully by castor oil and Gregory's powder for infants and adults. Strongly condemns fussiness and over-medication in sickness, and relates some amusing instances of the shiftlessness and duplicity of the natives, the child-like desire for "smartness" in dress on the part of the military authorities, and the blunders and ultra-conservatism of the bureaucracy.

The second part of the book is a valuable epitome of the existing climatological knowledge of the hot parts of the globe.

The printing and binding are good. There are a few noticeable typographical errors. The illustrations, although far from artistic, serve their purpose well.

## BOOKS RECEIVED.

FIRST ANNUAL REPORT OF THE HENRY PHIPPS INSTITUTE FOR STUDY, TREATMENT AND PREVENTION OF TUBERCULOSIS. 1903-1904.

ANNUAL REPORT OF THE STATE HOME FOR THE CARE AND TRAINING OF FEEBLE-MINDED WOMEN AT VINELAND. 1904.

A DIRECTORY OF INSTITUTIONS AND SOCIETIES DEALING WITH TUBERCULOSIS IN THE UNITED STATES AND CANADA. Compiled by Lilian Brandt. Published by the Committee on the Prevention of Tuberculosis of the Charity Organization Society of the City of New York and the National Association for the Study and Prevention of Tuberculosis. 1904.

EIGHTH ANNUAL REPORT OF PASSAIC COUNTY SOCIETY FOR PREVENTION OF CRUELTY TO CHILDREN.

## ATLANTIC CITY MEDICAL LIBRARY.

A medical library has been established by the Atlantic City Academy of Medicine and this society has entered into an arrangement with the Atlantic City Free Public Library, by which a room has been set apart for its books and periodicals. These will, however, only be given out to members of the Academy and their friends, as it is deemed unwise to allow the public free access to medical books. Physicians visiting Atlantic City will be extended every courtesy the library can offer. Contributions on medical subjects will be gladly received and may be directed to Dr. Wm. Edgar Darnall, President of the Academy, or Dr. Philip Marvel, Chairman of the Committee.—*Medical News.*

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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**APRIL, 1905.**

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### SEMINAL VESICULOTOMY.

This is the name given to a new surgical operation devised and carried out by Fuller, and described in a paper which he read before the Harvard Medical Society, of New York City. (*Medical News*, January 7th, 1905).

The steps of the operation are briefly as follows: The patient is put in the knee chest position, as Fuller has found that in the dorsal position it is impossible to properly reach the seminal vesicles for the accomplishment of his operation. Extirpation might be performed but not the conservative operation. The rectum is then dissected up and put out of the field by a wide incision, which is an extension of the Zuckerkandl. The seminal vesicles are then located and are frequently found filled with granulation tissue and the products of inflammatory degeneration. So that in some cases they may have attained almost the size of an egg. The remaining steps of the operation are quite simple. The vesicles are incised longitudinally and their contents scraped out with a curette. The incision is packed with gauze which is removed on the fifth day. The wound, it appears, is treated by the open method and as a rule heals kindly and quickly.

In Fuller's opinion the only contra-indication to the operation is tuberculosis of the seminal vesicles. Patients suffering from vesiculitis are by no means uncommon. Nor is this surprising when the all-pervading character of the gonococcus is considered and the persistence of the inflammation due

to its presence. The great majority of the cases are due to this organism and are consequent upon an extension of a specific urethritis.

The symptoms of vesiculitis have been erroneously ascribed to various other lesions, such as prostatitis, cystitis and deep stricture of the urethra. And in several cases the first named lesion may cause symptoms analogous to those of the latter complaints. Fuller mentions one case in which on account of the presence of pus in the urine, with irritability, the condition was diagnosed as cystitis. Irrigations and antiseptics per os availed nothing. Then, as the dysuria increased, prostatitis was suspected. All sorts of treatment were suggested. One surgeon proposed castration; another Bottini's operation, that of burning a tunnel through the supposed enlarged prostate, while a third wished a prostatectomy to be done. At the operation both seminal vesicles were found chronically inflamed. They were treated by Fuller's method. The patient has not only recovered from all his unpleasant symptoms, but has regained his sexual potency, which was supposed to have been irretrievably lost.

Fuller reports 33 successful vesiculotomies, with no fatalities. In mild cases of vesiculitis the older method of stripping and massage of the vesicles through the rectum answers quite well and should generally be tried before the operation is resorted to.

The relief of pain, dysuria, tension in the prostate region and, in some cases, sepsis with difficulty in locomotion, and a whole train of nervous symptoms, not to mention the restoration of sexual potency, are claimed as results of this comparatively simple operation.

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### PARTURITION IN THE FAR EAST.

Dystocia is said to be unknown in Japan. A highly educated Chinese woman, who graduated in medicine in America, and who went back to her own country to practice medicine was engaged by the Japanese government to instruct some Japanese midwives in modern methods of practicing their



profession. In the course of her instruction she found, to her surprise, that none of them were familiar with cases of child birth where instrumental delivery was necessary. She examined about seventy of these midwives, coming from all parts of Japan, separately, and they were unanimous in declaring that they had never met with a case in which a Japanese woman could not be safely delivered of a child without instrumental interference.

It is asserted that the pelves of the Japanese are relatively roomy, while those of the Chinese are not, and that amongst the latter dystocia is very common. Japanese babies are also, we are told, relatively and absolutely smaller than the Chinese.

This doctor, Yo Mai Kin by name, also said that the Chinese are exceedingly vulnerable to abdominal wounds. Blows across the abdomen or loins producing unexpectedly serious or even fatal results, whereas they sustain amputations of the limbs and operations upon the cranium remarkably well.

Granting that these observations are well authenticated, they present an interesting distinction between the two races, which are not altogether easy of explanation. It is easy to understand that the high-born Chinese woman, whose feet are bound in childhood and who is therefore deprived of her needful exercise and whose muscular and osseous structures are imperfectly developed in consequence, should be unfitted for child-bearing. But these limitations would not apply to the coolie class, amongst whom we are informed dystocia is also common.

We shall eagerly welcome further information upon the important racial, anatomical and obstetrical questions involved in the above statements.

#### MEAT EATING AND APPENDICITIS.

Despite the figures of the census reports which show that the consumption of meat per capita of the population of the United States is steadily diminishing we are still the greatest meat eaters in the world.

Dr. Lorenz, the celebrated Vienna surgeon, has called attention to the relatively greater prevalence of appendicitis in America and has attributed this to the consumption of meat that has been kept in cold storage, asserting in other words that Americans as a race are rendered more or less septic by this form of alimentation.

While we are not prepared to deny the truth of this statement, it seems to us more reasonable to ascribe our vulnerability to appendicular inflammations rather to the excessive consumption of nitrogenous food than to the quality of the food itself.

Chittenden and others have shown that the amount of nitrogenous food ordinarily taken in this country is excessive and harmful and is the predisposing cause of gout, rheumatism, heart disease and a host of human ailments. Balfour asserts that after middle life practically everyone is gouty (*The Senile Heart*, p. 162). He says "The gouty diathesis is only a comprehensive term for all those changes in the character and composition of the blood induced by the evils of civilization—deficient exercise and excess of nutriment—multiplied into those developmental changes in the vascular system, which are at once the cause and also the consequence of puberty."

If these remarks are true of the English, and we are not aware that their truth has ever been denied, they ought to be, in our opinion, still more applicable to Americans, as a race, inasmuch as our average consumption of flesh foods is greater than that of the English.

Why then is it necessary to attribute to cold storage meats a condition which may follow the excessive ingestion of meat of any sort?

The rather notable frequency of appendicitis amongst athletes is more readily explained on the hypothesis that their diet consists too largely of meat than upon any other—although it may be admitted that this meat may have been subjected to a process of cold storage. A prominent trainer of football players has told us that for a time before the contest vegetables were en-

tirely discarded from the diet of a team under his charge. And it transpired that at least one member of this team underwent an operation for appendicitis very soon after the conclusion of his course of training.

That the diet of athletes in training is very largely composed of meat is well known, while to say that an athlete at the height of his training, when he is commonly said to be in the "pink of condition," is septic, appears to us absurd. We know that a temporary condition of renal congestion, accompanied by albuminuria and casts, is not uncommon in training and this also is more probably due to the excessive meat diet than to the severe exertion. The appendix vermiformis being a non-functionating and probably an effete organ is especially prone to destructive inflammation. Consequently a harmful excess of the products of nitrogenous metabolism present in the circulatory fluids would naturally set up an inflammation in this organ, from which, owing to its low vitality, it would not recover as the highly organized and active kidneys do.

We hope that further light may be thrown upon this important question, especially in reference to the frequency of appendicitis amongst vegetarians.

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### THE STATE MEDICAL EXAMINING BOARD.

The good work of this board has attracted attention in a high quarter. *The Boston Medical and Surgical Journal* has devoted an editorial to a consideration of the last annual report of our State Examining Board, which is re-printed in another column of this issue. Work directed to the elevation and improvement of the medical profession cannot fail to attract commendation. None of us are so fully satisfied with the approval of our own consciences that we are not more or less gratified by honest commendation from competent critics. We take pleasure therefore in laying before our readers the editorial taken from our high-minded, dignified and acute contemporary.

Every New Jersey physician should take

pride in the fact that our State is becoming known as a commonwealth where good medical laws are enacted, good diaries are established and the highest ideals in professional life are constantly urged upon physicians.

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### PRINCETON.

Princeton University has asked for an additional endowment of \$2,500,000, and has stated that this amount is necessary to establish and maintain the enlarged courses of instruction which the needs of the institution demand. It appears that the funded endowment of Princeton at present only amounts to about \$2,700,000; assuredly a small capital for a college which has done the excellent work that has made our leading institution of learning famous.

Every friend of sound learning and every good citizen of New Jersey can but hope that President Wilson will be able to secure the sum he has asked for, and which he will, no doubt, make the best possible use of.

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### THE BEGINNING OF THE END.

At last, after much deliberation, the Council of Pharmacy and Chemistry of the American Medical Association has published a report of its conclusions in the matter of advertising proprietary, pharmaceutical preparations, and has laid down a set of rules which must be followed by the advertiser and the *Journal A. M. A.*, if any of these products are to be allowed advertising space in the *Journal*.

We hope that every physician in our State will read, mark, learn and inwardly digest this report, which appears in the *Journal A. M. A.* of March 4th, 1905.

From the letter of Doctor Simmons, published in our correspondence column, it can be seen that he expects considerable difficulty in carrying out the rules laid down by the council in their spirit and letter. To our mind, however, there can be no doubt of the issue of this vexed and troublesome question if the editor of the *Journal of the American Medical Association* and the editors of the



State journals stand firmly upon the ground laid out for them and scrupulously adhere to the excellent code of rules we have referred to.

### THE VETERINARIANS DETERMINE TO PROSECUTE ILLEGAL PRACTITIONERS.

The Veterinary Medical Association of New Jersey has taken steps to prosecute all persons practicing veterinary medicine in this state without having complied with the provisions of the law, which demand an examination before the State Board of Veterinary Medicine and the obtaining of a license before anyone can engage in the practice of this branch of medicine.

As we have previously pointed out, the dentists have already proceeded against at least one offender and compelled him to comply with the law regulating the practice of dentistry in New Jersey.

The medical profession ought to be the first and not the last in the enforcement of obedience to laws regulating practice. Instead of which we lag behind while the dentists and veterinarians are setting us a worthy example in the matter of sensible and efficient treatment of irregular and illegal practitioners.

### A NEW JOURNAL.

The first issue, February, 1905, of the *Archives of Physiological Therapy* is before us. The editor is Edward Clarence Skinner, M. D., LL. D., New Haven, Conn., and the collaborators are men well known as electro-therapeutists, specialists and general practitioners, who have made special study of physiological and mechanical therapeutics. The *Archives* present an extremely attractive appearance and are profusely illustrated. The contributed articles and the abundant abstracts are of a very high order and are well selected and arranged. We congratulate Dr. Skinner on the first issue of his journal and wish him and his associates great success in their undertaking. The publisher is Richard G. Badger, Boston.

*The Committee on Scientific Work needs a few more interesting original papers from members of the Society for the next annual meeting.*

*The titles and a brief synopsis of each paper should be in the hands of the committee without delay, so that a properly balanced program may be arranged and, wherever it seems advisable, a suitable discussion upon the subject of the paper may be provided for.*

Address all communications and inquiries to  
TALBOT R. CHAMBERS, M. D.,  
Commercial Trust Building,  
Jersey City, N. J.

### OBITUARY.

**Louis August Hering, M. D.**, died at his father's home in Vailsburg, after a long illness, February 24.

**Henry R. Worthington, M. D.**, died in Trenton, February 23rd, aged about 41. He graduated at the Hahnemann Medical College Philadelphia, in 1886.

**Thomas Terrill, M. D.**, College of Physicians and Surgeons in the City of New York, 1867, formerly surgeon of the Third Regiment, N. G. N. J., city physician of Elizabeth, N. J., coroner and physician of Union County; a member of the Union County Medical Society, died at Alexian Brothers' Hospital, Elizabeth, from cerebral hemorrhage, February 22, after an illness of several weeks, aged 59.

**Henry Clay Van Gieson, M. D.**, died in Omaha, Nebraska, early in March. He was born in Paterson, N. J., October 18, 1839, and practiced his profession there for 25 years. He graduated at the Medical Department of the University of Georgetown in 1864 and at the College of Physicians and Surgeons, New York city, in 1866. He leaves a widow and four children.

**Obadiah V. Garnett, M. D.**, Jefferson Medical College, Philadelphia, 1855, of Paterson, N. J., surgeon in the Confederate service during the Civil War; for many years local surgeon of the Erie Railway, died in the Paterson General Hospital, February 17, from chronic nephritis, after a long illness, aged 70. He was a member of the Passaic County Medical Society.

**Wm. B. E. Miller, M. D.**, formerly of Camden, N. J., died at Hightstown, N. J., on March 2nd, at the age of 56 years. He served in the Federal Army during the Civil War, was for a number of years Federal Inspector of Cattle at Jersey City, and served for two terms as a member, and for one term as president of the Camden City Council.

**Alonzo I. Hunt, M. D.**, Department of Medicine of the University of Pennsylvania, Philadelphia, 1895, president of Hamilton Township Board of Health, died at his home in Hamilton Square, N. J., February 13, from pneumonia, after an illness of six days, aged 34. The Mercer County Medical Society, at a special meeting, February 14, appointed a committee to draft a memorial on Dr. Hunt, and a committee to attend his funeral.

**John J. Prendergast, M. D.**, College of Physicians and Surgeons in the City of New York, 1868, one of the founders of the Manhattan Eye and Ear Hospitals, and for some years visiting physician to St. Francis Hospital in Jersey City, also some-time president of the Hudson County (N. J.) Medical Society, and county physician, died at his home in Brooklyn, March 1, after a short illness, following a fall, aged 57.

**Edwin Jenkins Howe, M. D.**, was found dead in his bed at his residence, 22 East Kinney street, Newark, on the morning of March 14th. He had been in his usual health the day before and is presumed to have died from heart disease. He graduated at the College of Physicians and Surgeons in New York City in 1873, subsequently studying homeopathy. He was one of the best known homeopathic physicians in Newark and was 55 years of age. He leaves a widow.

## Annual Reports from the County Societies—1903-'04.

### HUDSON COUNTY.

*Dr. Calvin F. Kyte, Reporter,  
Jersey City.*

Hudson County is an ideal health resort. There were no deaths in the Society and fewer deaths among our patients than ever before (1899 excepted). The saving of three thousand lives in 1903 is due doubtless to a better water supply and to greater skill and more advanced methods in the treatment of patients. The usual meetings of the Society have been held during the year and the following papers were read and discussed: "Practical Points in Hernias," by Dr. Frank D. Gray; "The Puerperal Uterus," by Dr. Henry Suloreff; "A Diagnostic Symptom of Cranial Syphilis, with Prognosis and Treatment," by Dr. W. B. Pritchard, of New York City; "Comparative Value of Different Methods of Temperature Determination," by Dr. Charles L. De Merritt; "Diet in Health and Disease," by Dr. Calvin F. Kyte; "Aconitin; Its Action and Uses," by Dr. Henry D. Abbott. At the April meeting Dr. H. J. Bogardus exhibited a case of unilateral congenital dislocation of the hip, treated by the Lorenz method of bloodless reduction. The membership of last year, 148, has been increased by one. Four new members were elected and three withdrew. No member of the Society has died during the year.

### HUNTERDON COUNTY.

*Dr. Leon T. Salmon, Reporter,  
Lambertville.*

Two stated meetings have been held during the last year. At the October meeting Dr. L. C. Williams read a paper on "The Infantile Diarrhoeas." The Society applied for a new charter. The April meeting was well attended. Dr. Charles Allen, of New York, formerly of Flemington, delivered an address, "Cancer and Its Treatment by X-Ray." Dr. William E. Clark, the councilor of our jurisdiction, was present and rendered valuable aid in the reorganization. Death has removed one member, Dr. M. D. Knight. Influenza has been epidemic in the county.

### MERCER COUNTY.

*Dr. A. Dunbar Hutchinson, Reporter,  
Trenton.*

The interest taken by the members of this Society is encouraging. The following papers have been read during the year: "Beginning General Paresis, Its Recognition and Management," by Dr. Charles L. Allen; "Typhoid Fever, with Unusual Complications," by Dr. D. F. Weeks; "Care of Children's Eyes," by Dr. J. F. Chattin; "Early Recognition of Pulmonary Tuberculosis, Its Treatment and the Management of Consumptive Patients," by Dr. William A. Clark. Five new members have been added to the roll, and one of our most valued members, Dr. Cornelius Shepherd, died. At our annual banquet, Dr. Robert Abbe, of New York, was the guest of honor and gave us a talk upon the status of radium. Several interesting cases and specimens have been exhibited to the Society during the year. The by-laws and constitution were changed at the March meeting. The health of the city compares favorably with records noted in neighboring cities.

### MORRIS COUNTY.

*Dr. Frederick Wooster Owen, Reporter,  
Morristown.*

The Morris County Society is in a flourishing condition. At the March meeting Dr. J. W. Farrow, of Dover, read an interesting and instructive paper upon anaesthetics. Dr. P. S. Mallon, of the N. J. State Hospital, read a paper on "General Paresis." In September Dr. A. A. Lewis, of Morristown, read a paper on "Modern Medicine." Five new members have been added to our roll, while death has removed Dr. Stuart H. Reed, of Madison. La Grippe and pneumonia have been prevalent, but not especially fatal. Pertussis, parotitis, varicella and diphtheria have also been frequent throughout the county, with a few cases of typhoid fever. Morristown's Memorial Hospital Annex for contagious diseases has rendered valuable aid in preventing the spread of scarlatina.

### SUSSEX COUNTY.

*Dr. H. D. Van Gaasbeck, Reporter,  
Sussex.*

This Society has held two meetings during the past year. No scientific work was done at either of the meetings as the time was fully occupied in the discussion of the new constitution and by-laws. No serious epidemics have occurred during the year, although measles have been prevalent. There have been a few mild cases of scarlet and typhoid fever. There seems to have been more sickness of a general character than usual; as all the members of the Society report a very busy season. Drs. Coleman and Pellet report that they have operated upon 14 cases of appendicitis during the past year. There have been no additions to our Society and no deaths during the year.

### WARREN COUNTY.

*Dr. J. H. Griffith, Reporter,  
Phillipsburg.*

Membership in this Society remains about the same. No deaths have occurred. The health of the county is good. We trust that the revision of the constitution and by-laws and the appointment of councilors will have a good effect upon our Society. Dr. Griffith reports that Dr. William McGee, treasurer of Warren County, died May 10th, 1904.



**UNION COUNTY.**

*Dr. Milton A. Shangle, Reporter,  
Elizabeth.*

During the past year five meetings of this Society have been held. A special meeting was held at Elizabeth, March 30th, for the consideration of the new constitution and by-laws. Both were adopted after the addition of a few amendments to the constitution and the insertion of a new clause into the by-laws, reading as follows: "No member of this Society shall be allowed to contract, verbally or in writing, for the attendance of families or beneficial societies." At the July meeting Dr. R. H. Livengood read a paper on "Infant Feeding." At the October meeting Dr. Norton L. Wilson read a paper upon "Homeopathy." In January, Dr. W. E. Cladek read a paper upon "Pneumonia," and at the annual meeting in April Dr. A. Stern read a paper upon "Arterio-Sclerosis." Many interesting cases have been reported and discussed. Dr. Leal, the State councilor for this district was with us at the April meeting and congratulated the Society upon being the first in his district to reorganize. An attorney has been retained to gather evidence and help prosecute illegal practitioners in the county. Pneumonia, scarlatina and measles have been prevalent.

**MONMOUTH COUNTY.**

The Monmouth County Society failed to elect a reporter in 1903 and presented no formal report.

**SALEM COUNTY.**

*Dr. William H. Carpenter, Reporter,  
Salem, N. J.*

This Society had three meetings during the year, with a good average attendance. One new member was admitted. Dr. W. H. Carpenter read a paper on "Hydrotherapy in Typhoid Fever." Dr. B. A. Waddington read on "Progress in Laryngology"; Dr. F. Bilderback "Treatment of Pneumonia"; Dr. Henry Chavanne on "Medical Properties of Plants." The county has been usually healthy. La Grippe was prevalent during February and March, in many cases complicated or followed by rheumatism. Dr. James, of Pennsville, reported an epidemic of measles and whooping cough in that locality. At present there are nine cases of variola in Lower Alloway Creek Township, three others having died.

**SOMERSET COUNTY.**

*Dr. W. H. Long, Jr., Reporter,  
Somerville.*

During the past year Somerset County Society has held its regular quarterly meetings. In July they visited, in a body, the State Epileptic Colony at Skillman. At the October meeting Dr. A. H. Dundon read a paper on eclampsia, and at the annual meeting in April Dr. R. G. Freeman, of New York, read a paper on the "Differential Diagnosis of Scarlet Fever, Measles and German Measles." The regular annual dinner was much enjoyed. Dr. John Ward was the guest of honor. There have been no deaths in the Society and no new members have been added to the roll. The average amount of illness has prevailed. The Somerset Hospital at Somerville is in a prosperous condition and is already too small to meet the demands made upon it. An interesting case of sarcoma of the kidney was reported to the Society.

**PASSAIC COUNTY.**

*Dr. A. F. Alexander, Reporter,  
Paterson.*

This Society has held ten meetings during the year. The attendance has been fairly good. Many instructive and interesting papers were presented. Dr. John L. Leal read a paper on "Drinking Water and Its Filtration," and invited the Society to inspect the filtration plant of the East Jersey Water Co. at Little Falls, May 31st, 1903. Twenty-five members visited the plant and were highly pleased with what they saw. Since the completion of this plant the number of cases of typhoid fever has materially decreased. During December, Dr. John C. McCoy read a paper, illustrated with stereoptican views, on "The Pathology of Appendicitis." He reported 27 cases. At the October meeting a committee was appointed to confer with the Passaic City Society and endeavor to induce all reputable physicians in the county to join the county Society. Many interesting cases and specimens have been exhibited. The health of the county has been remarkably good. In Paterson there were 137 cases of scarlet fever with two deaths; 287 cases of diphtheria with 42 deaths; 95 cases of typhoid with 14 deaths; 4 cases of smallpox, no deaths. The work of the Isolation Hospital is highly appreciated. Both Hospitals are doing good work. We have lost by death, Dr. C. F. W. Myers, Dr. S. R. Merrill; also an ex-member, Dr. Sarah F. Mackintosh, who was secretary of the Society in 1875. Twelve new members have been added to our roll.

**News from the County Societies**

The annual meeting of the Essex County Medical Society will take place at Jacoby's, 882 Broad street, Newark, on April 4th, at 7 P. M.

The Passaic County Medical Society met in Paterson on March 14th. Papers were read as follows: The Dangers of Infected Milk, Richard Cole Newton, M. D., Montclair; The Production, Handling and Transportation of Milk, Henry L. Coit, M. D., Newark; Milk Modification and Milk Feeding, Henry D. Chapin, M. D., New York; The State Dairy Inspection Service, William K. Newton, M. D., Paterson; Municipal Milk Inspection, William S. Green, M. D., Paterson.

The following gentlemen have promised papers for the State Society meeting in June, in addition to the president's address and the orations on medicine and surgery: Drs. Kipp, Harvey, Hance and Knopf will speak on tuberculosis, and Drs. Staehlin, Wrightson, Balleray, Emerson, Reading, Chavanne, McAlister, Chambers, Strasser and Silvers will have papers.

The Morris County Medical Society held their annual meeting in Morristown, March 14th. The retiring president, Dr. H. M. O'Reilly read an address on "Purpura Hemorrhagica" with the report of a case. Dr. H. A. Cossitt read on pneumonia. The following officers were elected for the ensuing year: President, Dr. Henry A. Cossitt; vice-president, Dr. W. J. Wolfe; secretary, Dr. H. W. Kice; reporter,

Dr. H. S. Wheeler; committee on essays, Drs. H. S. Wheeler, F. W. Flagge and S. C. Haven. Drs. Wolfe and Vaughan were elected delegates to the State Society meeting at Asbury Park in June. Dr. Thomas W. Harvey, of Orange, Councillor for Warren, Sussex, Morris and Essex Counties, was present and spoke to the members, urging upon them the necessity of attending strictly to their society duties and of bringing in new members.

The meetings of this society are quarterly and the next meeting will occur on the second Tuesday in June.

According to the N. Y. Tribune, a barrellfull of dust is sifted out of the air which enters the Hotel Regis in New York City every day.

And in this dust tubercle and influenza bacilli have been demonstrated.

The Tri-County Medical Society of South Jersey met on January 24th at Salem. Dr. H. W. Elmer, the president, was absent, having sailed for Jamaica, W. I. on account of ill-health. Dr. Waddington, an ex-president, was confined to his bed with a chill.

At a regular meeting of the Atlantic City Academy of Medicine held January 13th, 1905, the following officers were elected for the ensuing year: President, William Edgar Darnall; Vice-President, E. H. Harvey; Secretary, Walt P. Conaway; Treasurer, J. Addison Joy.

A symposium on pneumonia was held at the March meeting of the Orange Mountain Medical Society. Drs. H. S. Carter, W. B. Potter and N. Norton, all of New York, read papers on The Pathology and Etiology, Symptoms and Diagnosis, Treatment.

Dr. David F. Bentley recently resigned his position as sergeant of police in Camden, N. J., to take up the practice of medicine. He was appointed police sergeant over six years ago and has devoted such time as he could spare from his official duties to studying medicine. He has now graduated with honors at the Medico-Chirurgical College in Philadelphia.

#### FOR A TUBERCULOSIS HOSPITAL.

At a recent meeting of the Board of Health of Paterson it was decided to recommend to the Board of Aldermen the establishment of a tuberculosis pavilion at the isolation hospital.

It was also recommended to the board that a bacteriological department be established for the proper carrying out of the war against tuberculosis.

The health officer was directed to see that the provisions of the tuberculosis ordinance are enforced. This means that all physicians will be forced to report to the board all cases of the disease which come to their knowledge in the same manner as they now do typhoid, diphtheria, smallpox and other contagious diseases. The houses where such patients have been will be fumigated and every means taken to prevent the spread of the disease.

A fire causing a loss of \$7,000 occurred March 3rd, in the Essex County Insane Hospital. No loss of life was reported.

Dr. and Mrs. E. L. B. Godfrey are traveling in Florida.

Doctor P. N. Jacobus, of Newton, has been seriously ill.

Dr. Thomas S. P. Fitch is seriously ill at his home in East Orange.

Dr. William Buerman has been elected president, and Dr. Herbert S. Sutphen, a vice-president of the Newark High School Alumni Association.

Hereafter cases of consumption must be reported to the Board of Health of East Newark.

It is stated in a newspaper that a man was brought into the Medico-Chirurgical College Hospital in Philadelphia with his back broken. So severe was the wound that the spinal cord was torn. The lacerated ends were, it is alleged, trimmed off and brought together with sutures.

Dr. Thomas Darlington, health commissioner of New York city, has appointed Drs. Polk, James, Northrup, Flexner, Van Cott, Dunham and Draper, a commission to study the cause and prevention of cerebro-spinal meningitis, which is now epidemic in the city.

A bill has been introduced into the lower house of the State legislature, forbidding any physician to give in evidence any information obtained during professional attendance upon a patient.

Doctor George T. Moore, who is in charge of the department of plant physiology at Washington, is about to make tests of the drinking water of Newark, Camden and Jersey City. He is the inventor of the plan of water purification by means of copper sulphate.

A bill has been introduced into the Wisconsin Legislature asking for \$90,000 to establish a State sanitarium for consumptives and a yearly maintenance fund of \$25,000.

#### THE OPPENHEIMER COMPANY.

According to the *Tribune* of this city several of those whose names have been published as indorsers of the Oppenheimer treatment of alcoholism, have issued an announcement withdrawing their endorsement of the enterprise. Among those who have refused to permit the further use of their names as sponsors for the method, are Bishop Potter, Rev. Dr. Parkhurst, Rev. Robert Collyer, Hon. Chauncey M. Depew, and Mr. J. D. Kennedy of this city, and Rev. Floyd W. Tompkins, of Philadelphia.—*Medical Record.*

Two cases of anthrax appeared last month in the cattle at Swedesboro, N. J. Preventive inoculations were used by Dr. T. B. Rogers, the veterinarian, upon the cattle that had been exposed to the infection and the epidemic appears to have been arrested.



### PATHOLOGICAL LABORATORY TO RE-OPEN.

The authorities of the Orange Memorial Hospital have announced that steps were being taken to open the Graves Pathological Laboratory attached to the hospital. It has been closed for several months because of the lack of funds to run it. The effort is now being made to place the laboratory on a working basis, and the co-operation of the Orange Board of Health is being sought. An important step decided upon is to throw the facilities of the laboratory open to physicians of all schools.

It is expected that regular examinations of the milk sold in Orange will be made at the laboratory

Dr. Albert J. Loomis, of Jersey City, paid a fine of \$5 the other day for the privilege of pummeling the motorman of a trolley car, because he did not bring his car to a stop promptly, and the doctor was dragged some distance before he could get aboard.

A ten-year-old girl died from tetanus in New York city the other day, supposed to have been contracted from a toothache paste which she had rubbed upon her gums.

The Town Council of Montclair in February appropriated \$500 toward the salaries of four medical inspectors of schools for the remaining four months of the school year and to pay for printing. The Board of Health has named the following physicians, inspectors: Drs. J. T. Hanan, W. C. Noble, W. H. Areson and Stella Bradford.

A correspondent writing from Washington to the *Boston Transcript* recently, says: For practically all the present session of Congress the pure food bill, which the House passed a year ago, has been before the Senate, where the chances for its final passage are very slender. The opposition which it is encountering shows in a striking manner to what extent the United States Senate affords a lodgment for the influence of a lobby of whisky rectifiers, proprietors of patent medicines, manufacturers of adulterated foods and beverages, and promoters of profitable drug trade frauds. This lobby has been very industrious all winter, and it seems about to accomplish its purpose, although a majority of the senators doubtless favor the proposed legislation, or at least feel that something ought to be done. The chief opponents of the bill are certain senators representing States which have a considerable number of firms that the proposed legislation would affect unfavorably.—*American Medicine*.

It is related of W. W. Astor, formerly of New York, now of Cliveden, England, that he carries with him wherever he travels a commode so that he will not have to use a toilet which any other person has ever used.

Murdoch says, (*Medical News*, October 8th, 1904) that orthoform in 8-grain doses given according to the incidence of the pain in cases of gastric ulcer will not only relieve this symptom, but will cure the condition.

### THE STATE TENEMENT-HOUSE COMMISSION.

What a state of affairs is disclosed in Jersey City and Hoboken and also in some parts of Newark and in all the great cities of this State by the report of the State Tenement-house Commission:

The fact that for many years the work of tenement-house construction had been carried on in this State with practically no restraint or supervision, except such as pertains exclusively to structural work, has brought about a state of affairs in many of the congested sections that must be seen to be comprehended. Foul, malodorous privy vaults, filled to the yard level and in many cases overflowing into the yards and draining into adjacent cellars, the floors and even the walls covered with an accumulation of fecal matter; dark, unventilated cellars, partially filled with garbage and refuse of all kinds and littered with heaps of discarded bedding, rags, paper and other inflammable material; broken soil and waste pipes discharging into the cellars, sleeping-rooms so dark that even in broad daylight objects at a distance of only a few feet were undiscernible; broken and dilapidated stairs, holding out menace of life and limb, and an almost total absence of means of escape in case of fire, were among the features of the problem with which the board had to deal.

What breeding places for consumption and for diseases of every conceivable character! What perils to the communities in which they were located, for some of the filthiest of these tenements were in close proximity to the finest dwellings and near to residential localities most desirable so far as front yard appearances would indicate!

The Board of Tenement-house Supervision is, therefore, an adjunct of the open air treatment; it is a most valuable assistant in the business of stamping out consumption, for, if its work is done properly and thoroughly, it will compel the destruction of disease-breeding tenements and the erection of sanitary buildings. It will enforce cleanliness, let the light into dark rooms, open the dwellings to ventilation, clean out the filth and afford the sickly some little chance to get well through the application of ordinary, natural, common, but invaluable methods. The tenement-house laws, well enforced, may be made marvelously efficacious in checking the spread of consumption and in guarding against discomforts, distresses and diseases of almost numberless variety. If the tenement-house laws are to be amended in any way whatever, these facts should be weighed carefully, and no changes should be permitted except such as are absolutely necessary and advantageous from the sanitary point of view.—*Evening News*.

Dr. Simon Flexner, director of the Rockefeller Institute in New York city, will lecture before the Pierson Medical Library Association in their rooms in the Stickler Memorial, Orange, on April 11th at 8.15 P. M. His subject will be "Some Parasitic Conditions of the Blood with Especial Reference to Tropical Diseases." The profession are cordially invited.

The Trustees of the Society for the Relief of the Widows and Orphans of Medical Men of New Jersey, were entertained at dinner at the Essex Club in Newark, by Dr. Kipp, their president, on February 23rd. Drs. J. T. Hanan, Linn Emerson, A. E. Wensch, W. H. Hicks, Rudolph and Van Deetzen were elected members of the Society.

**DEATHS EXCEED BIRTHS.**

The report of the Bureau of Vital Statistics of Camden shows that during the year just closed there were 1,869 marriages, 1,497 births and 1,532 deaths, thus showing 35 more deaths for the year than births, provided all births were reported.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D., 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the author of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unsets manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.

Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.

*Most of the county societies hold their annual meetings in April or May and now is the time to urge all reputable medical men in this State to join their respective county societies.*

*About one year ago cards were sent out for the purpose of obtaining a personal record of every practicing physician in New Jersey—name, age, birthplace, school of practice, etc., etc. These cards, after being filled in, were to be sent to the Recording Secretary of the Medical Society of New Jersey and by him kept on file. Duplicate cards were to be kept by each county secretary of the practitioners in his county. Most of the county secretaries have made returns, but from some nothing has as yet been heard. The latter are reminded of this undischarged duty and urged to collect and send in these cards, properly filled out, at an early date.*

*Blanks similar to the cards have been printed on sheets of paper and can be supplied on application to the Secretary, Wm. J. Chandler, South Orange, N. J. It is very desirable to have a complete record of all men, regular and irregular, practicing medicine in this State. The time is not far distant when illegal practitioners will be prosecuted and punished to the full extent of the law.*

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## LOOKING BACKWARD.

A BRIEF REVIEW OF THE HISTORY OF MEDICINE WITH SPECIAL REFERENCE TO ERRORS AND FALLACIES WHICH HAVE APPEARED AND REAPPEARED DURING ITS DEVELOPMENT.

BY

RICHARD COLE NEWTON, M. D.

MONTCLAIR, N. J.

*Being the Presidential Address Delivered Before The Essex County Medical Society, at The Annual Meeting, April 4, 1905.*

"The new things in medicine are the things which have been forgotten."

Esculapius was, we are told, the first physician. His origin antedates authentic history, and is shrouded in mystery. He was alleged to have been the son of Apollo, the God of Medicine, and to have been killed by a thunderbolt hurled at him by Jupiter as a favor to Pluto, because of his skill as a physician, which kept the people too long upon the earth, and correspondingly retarded the population of the lower regions.

Hippocrates, a Greek, "the father of medicine," was born in Cos, 460 B. C. Pythagoras, also a Greek, preceded him by more than one hundred years. He taught philosophy and medicine, and is said to have regarded the cabbage as the universal remedy for all diseases. At about this time, secret nostrums were sold

in all the principal cities of Greece, and Boas informs us that the entire and extensive repute of a Byzantine physician depended singly and solely upon some nostrum owned and sold by him.

Two thousand years B. C. Hammurabi, King of Babylonia, had enacted and published laws against incompetent and unskilled practitioners, and ordained penalties for unsuccessful surgical operations. Hence it is plain that the sale of nostrums and laws intended to regulate medical practice date back into remotest antiquity.

For ages the Asclepiadae, said to have been the direct descendants of Esculapius, flourished. These were priests who practised medicine from the temples, and their names frequently appear in the medical writings extending over a period of more than two thousand years. Their knowledge was carefully concealed from the vulgar, and they were bound to secrecy regarding their art by blood curdling oaths, after having been initiated into its mysteries by absurd and extravagant rituals and ceremonies.

The Egyptians were said to have learned the use of cathartics, emetics, venesection and clysters in pre-historic times. Venesection they claimed was taught them by the hippopotamus. This sagacious beast would open a vein in his leg by striking the member against a sharp reed, and when sufficient blood had been withdrawn, would stanch the flow by the application of a plug of mud. This performance was no less wonderful than that of



the sacred bird, the Ibis, which is alleged to have administered rectal injections to itself with its bill, and so taught countless millions of human bipeds this simple and efficacious remedial measure.

Many writers on medical subjects appeared between Hippocrates and Galen, who lived in the second century of the Christian era, but we cannot take the time to enumerate them here. Galen left behind him a mass of writing, much of it of great value, while many of his works have been lost. He was one of the great thinkers of the world, and has left his impress on medical thought for all time. He however, had more faith in amulets than in medicines, and is supposed to have been the inventor of the anodyne necklace, so long in favor in some parts of Europe. After his death, the whole world became Galenites, and so remained until the seventeenth century. He claimed that he was the only one who understood and taught thoroughly the doctrines of Hippocrates, and he laid special stress upon the dogma of "coction." This was in effect alleged to be the process by which the morbid material which causes a disease is prepared for expulsion from the body. This process he taught could only go on in the presence of heat, so the body of a sick person must be kept warm at all hazards, and cold drinks and fresh air must be sedulously kept from the sufferer. Clothing must be piled upon him, doors and windows must be fastened down and hot drinks and stimulating food frequently administered. This inhuman treatment was persisted in until the patient died, or the sickness abated in spite of it. The untold suffering which this mistaken theory has caused can be better imagined than described. Even now, its pernicious influence is felt amongst us.

No doubt many of you will recall the famous incident of the typhus fever cases on Blackwell's Island during the civil war, when many soldiers sick with this disease, were put into tents, as it was supposed, to die from exposure, simply because there was no more room in the hospital wards. Great was the astonishment of the whole medical world when a larger percentage of those treated in tents recovered, than of those treated in the hospital. This was, so far as I know, the first practical demonstration that fresh air will not of itself kill a fever patient.

For fourteen hundred years that hor-

rible doctrine of "coction" had ruled the medical work with a rod of iron. Thousands and millions of lives had been sacrificed to it. It is an extremely fortunate thing for mankind that the present crusade against tuberculosis is educating the lay and medical world to a knowledge of the life giving properties of fresh air, both by night and day. Night air has ever had its terrors to the human imagination. George B. Wood speaks in one of his works of the fact that he had observed the great diminution of malarial fevers amongst the inmates of some public institution under his charge, when they were prevented from going out into the night air. Modern science teaches that the anopheles mosquito is especially active just after sun down, but the older writers naturally attributed the malarial diseases to the pernicious night air.

However, I am anticipating. To revert to the time of Galen, after his death the practice of medicine again passed into the hands of priests and ministers. Professor Smythe asserts that the belief that the power to cure diseases had passed from Christ to his disciples did more to establish the Christian religion than any other one agency.

Diseases, plagues and pestilences, were regarded as punishment for sin, and prayer, atonement and the laying on of hands were the recognized means of cure. We read in Holy Writ that King Asa in his sickness sought not to the Lord, but to the physicians; so Asa "slept with his fathers." We all remember the story of the blind man in the New Testament of whom the disciples asked Christ, "Master, who did sin, this man or his parents that he was born blind?" Instantly came the reply, "Neither did this man sin, nor his parents;" and in another place the Saviour denied that the Gallileans, whose blood Pilate had mingled with their sacrifices, nor those upon whom the Tower of Saloam had fallen, were sinners above others. Still the whole heathen world and a large part of the Christian world as well, believe to-day that sickness is a punishment. As Beecher said years ago, it is unfair to ascribe an attack of fever to Divine Providence, when there are rotting potatoes in the cellar; but Beecher was many years in advance of his time. Many of you will doubtless recall the absurd account of the cure of Richard Couer de Lion, from a fever by a talisman brought by the

Soldan in person, as recounted in Scott's famous novel, "The Talisman." The artless absurdity of the tale, one would think, would have prevented even Sir Walter himself from relating it in apparent good faith.

However, the science of medicine will have made enormous strides if the populace can ever be taught that sickness and health are the results of natural causes, and that there is nothing miraculous about them. It is the appeal to the imagination; the thought that is startling; the wonderful revelation that arrests attention and captivates the popular mind; nor are these remarks applicable alone to the laity.

Tanner has wittily said: "The history of medicine shows that not infrequently when the plain common sense truth stares us in the face, we prefer turning aside in order to advocate or establish a theory, the only charm of which, is its improbability."

Hippocrates has said, that the mind of man does not change. Certainly the tenacity of the medical mind to the teaching, which, as Barker puts it, was nursed with the mother's milk, is remarkable.

Smythe tells us, that in 1559 A. D., Dr. Geynes was called before the College of Physicians and Surgeons of London for impugning the infallibility of Galen, and was forced to make "a humble acknowledgement and recantation of his error" before he could enjoy any further privileges from the College.

Gould says, that for four hundred years the Greek physicians paid no heed to small pox, because they could find no description of the disease in the immortal works of Galen.

Quine writes, that in Hahnemann's time doctors were fined and imprisoned for having allowed any patient to die, without having bled him. Boussat was banished from Paris, not because he had failed to bleed a patient, nor because he had ever questioned the universal applicability of the lancet, but because he had had the audacity to propose a new method of bleeding.

If we turn our thoughts to that noble remedy calomel, we observe the same slavish devotion to precedent in its universal employment through a long period of years. Patients so far as one can judge now, were not thought to have been fairly treated unless they had been salivated. The loss of teeth and even a portion of the

maxilla, the permanent anæmia and general impairment of the health following an excessive administration of this drug, constituted apparently a negligible factor, provided the patient had been treated *secundum artem*.

I have on my desk a letter written in 1884 by Hiram Corson, M. D., of Conshohocken, Pa., in which occurs the following passage: "In the address which it was my duty as president of the State Society to deliver in 1853, I took occasion to advise against the indiscriminate use of calomel; and suggested, that some substitute be procured for use in ordinary cases as a purgative. You cannot now (if you are a young man) have an idea of the storm of indignation which was raised. The audience almost howled with rage, and yet a few years later, even Professor Stille of the University of Pennsylvania, could be heard by his students declaring that in no disease need they use mercury."

This was a reversion to an old view of treatment which made it a part of a doctor's oath that he would not administer to his patients either mercury nor antimony. This adjuration was repealed in 1680, and may have well been the starting point of the subsequent over use of these drugs, and another example of the pendulum of medical practice swinging too far in the opposite direction. Hecker says: "Physicians seem to be condemned to the fate of rarely discovering the *via media* of truth between the by-paths of error." Indeed we read of one great light amongst the homeopaths of a generation ago who wished it inscribed upon his tomb-stone, that he used antimony, or stibium, as he probably termed it.

Let us consider the history of another drug. I refer to the introduction of quinine into therapeutics. According to Sydenham, ague was the most fatal disease in England from 1661-1665, and it was about this time that the new remedy was gradually making its way into medical practice. It is related of Charles the First of England, that he had fallen sick of the ague and his case was going from bad to worse under the regular treatment, as a last resort it was proposed to administer to the royal sufferer the Jesuits' bark. Great opposition and indignation arose amongst the court physicians against so rash and unprecedented a procedure. Finally however, rather than allow the monarch to die of his fever, the bark was giv-



en him and he got well. It was then asserted that the use of this drug must be prohibited, or the occupation of the doctors would be gone. Finally, it was agreed to limit its use to royalty. This reminds one of the assertion attributed to some English King, that scratching is so great a luxury that only Kings should be permitted to indulge in it, which might be termed an unjustifiable restriction of individual rights.

The great Humboldt, with the well known tendency of the laity high and low, learned and simple, to meddle in medical matters, is said to have announced it as his opinion two hundred years after the introduction of quinine into Europe, that it was a valueless remedy.

Stille says, "That the indifference or hostility of the Spanish physicians against quinine as a new remedy prevented its general use; nor was so great a boon to suffering humanity accepted by the reluctant faculty, until the public sentiment in its favor was determined in an authoritative decision of the head of the Catholic Church.

Stille continues, "Protestant bigotry refused to admit that a powder introduced by the Jesuits, and called after them, could possibly possess any salutary virtues, and the Galenical schools would not allow that a medicine could cure, unless its operation were explicable according to their established dogmas. These fanatics even went so far as to attribute the ordinary constitutional results of malarial poisoning to the new remedy as the vulgar of the present day are accustomed to do."

Did any of those present to-night ever hear any such remarks made about quinine? It seems to me that there are living to-day certain gentlemen who have satisfied every legal requirement preliminary to the practice of our art, whose remarks about this invaluable alkaloid are withal as foolish and misleading as the opinions we have just quoted, which were expressed two hundred and fifty years ago. And this, in spite of the fact that thousands of investigations both at the bed-side and in the laboratory, extending over the entire interval from the time of Pope Innocent X to the present day, have fully confirmed the report made to his Holiness by Juan de Logo in 1643. This report based upon clinical observation was the more commendable made as it was at a time when

the teachings of the Arabs still prevailed and the diagnosis of disease rested solely on observation of the pulse and urine.

Bigotry, superstition and intolerance have been, and still are characteristics of the medical mind.

Boas says, "It is characteristic of the fate of new truths as well as of that authority loving age (in which he lived) that Harvey's immortal work setting forth his discovery (of the circulation of the blood) was unable to pass the censorship in England, and therefore appeared in 1628 at Frankfort on the Main." Had it been a work on the cure of liver complaint by a hair from the head of a defunct saint, it would probably have been received with open arms.

Nor is there anything new under the sun. Pliny tells us, that Mithradates King of Pontus made himself proof against poisons by gradually accustoming himself to all poisons. This he essayed to do by taking a mixture one of the principal ingredients of which was the blood of the Pontine duck, which was said to live on poisons. Thus the blood of an immune animal was used two thousand years ago to render a human being immune to infection, although we think that the use of antitoxin for this purpose was introduced about twenty years ago. The Asclepiadæ, 450 B. C. taught the advantages of hydrotherapy and directed their patients to run barefooted in the grass thus anticipating by 2000 years a measure made famous in our day by Father Kniepe.

The theory that mosquitoes are the causative agents in the transmission of malaria can scarcely be called new, since Sir Henry A. Blake, Governor of Ceylon, announced at a meeting of the Asiatic Society that Singalese Medical books of the sixth century described sixty-seven varieties of mosquitoes and four hundred and twenty-four kinds of malarial fevers caused by mosquitoes.

Asclepiades of Prusa eighteen hundred years ago held that the duration of those diseases which recur with daily, or two or three daily, intervals depend upon the differences in the sizes of the hogkoi, or unci, or hooked atoms, co-existing with them, a doctrine which may be considered anticipatory of the present germ theory of disease. Virchow quotes Paracelsus as saying that all disease is to be regarded as a parasite.

In the Atharvavida, one of the books or

collections of Indian folk lore, which were preserved by oral tradition for three thousand years, originating in 1500 B. C., were found charms which indicate from the color of drugs their effect on disease, as gold hammer and saffron for jaundice; red remedies, and especially red coves in disease of the vital force (the blood.) From their old formula, "Form to form, force to force," we may deduce a sort of primitive homeopathy.

The adage "cure like with like," has been discovered in medical writings as early as 650 B. C. In 560 B. C., Alexander Tralliamis wrote that the Oracle of Delphi directed that certain worms, which were asserted to be the cause of "the staggers" or "turning fits" in sheep, and which sometimes crawled out of the nostrils of these animals, should be used for the cure of epilepsy in man.

Hippocrates who died 357 B. C. wrote, "Some diseases can be treated best by contraries, some by similars," and again, "To cure mania give the patient a draught made from the root of mandrake in a smaller dose than will induce mania."

In 300 B. C. Theophrastus wrote, "Diseases are cured by remedies which effect the organism similarly to the disease."

Paracelsus in 1500 A. D. said, "A hot disease was never cured by a cold remedy, nor a cold disease by a hot remedy. Like attacks its like, and never its contrary."

Basil Valentine in 1602 said, "Like cures like, but contraries do not cure."

Stahl, who founded the so-called Expectant School, and died twenty-one years before Hahnemann's birth wrote, "I am persuaded that diseases are subdued by agents which produce a similar affection." And Shakespeare said in Troilus and Cressida, "One fire burns out another's burning. Put thou some new infection on thine eye and the rank poison of the old will die."

Professor Quine, whom I have been quoting continues, "Although Hahnemann discovered nothing but an ancient theory, it must be admitted that he set it forth in stronger language than any of his predecessors, not even excepting his prototype Paracelsus. He declared it to be "an unerring law," "an infallible law" and "the sole law of cure." These terms, which are still in common use, to wit, allopathist and homeopathist, were used, Garrant tells us, many centuries before Hahnemann's time, and there would seem to have been con-

troversies long before the Christian era between the allopathists and the homeopathists. There were also those who believed in a system called antipathy. Garrant says that the Empirics, a sect which grew up one hundred years after Hippocrates, and became rivals of his disciples, who were called Dogmatics, rejected the law of contraries, and adds that as one of the axioms of medicine this is no doubt very ancient, it being the most simple and natural idea of medical practice that would occur to the mind of man. One hundred years after these terms had mostly disappeared from medical literature, and different sects and schools of practitioners that had used them were dying out, these same old controversies were started again, and these same acrimonious disputes about terms were re-inaugurated and have in a measure at least continued to the present day.

Galen seems to have been cognizant of these different laws of therapeutics, for he held that "health is maintained by supplying similar with similar; whilst disease is overcome by opposing contraries to contraries." In Galen's time the art of medicine consisted mainly in devising and applying particular remedies to particular diseases; each malady was thought to have its own specific.

In Paracelsus' teachings it is laid down "For when there is a new disease, there is also its remedy. The special duty of the physician consists in finding for each disease its special remedy the *specificum* and *arcanum*." This seems to have even been a fundamental view of therapeutics which is still exceedingly common. The homeopaths have certainly taught that every symptom of disease has its appropriate and efficient remedy. I was surprised recently in conversing with a man who possesses one of the brightest minds in America today, to learn that he was strongly disposed to hold this view. I had often heard it from ignorant people, but that a brilliant thinker should believe it, struck me as rather remarkable.

The ancients searched long and faithfully for the philosopher's stone, as well as for the El Dorado, the land of perpetual youth. This effort to obtain something that shall cure every disease will perhaps go on forever. But it is to be hoped that the time is passing, if it has not already passed, when the *bon vivant*, like the Frenchman in the story, shall insist upon



his medical man giving him some remedy which would enable him to continue his unhygienic method of life, and maintain his health at the same time. The old Roman method of producing emesis after a feast so that another could be immediately eaten, was more rational than the expectation that there is any drug which shall maintain a man's health when he is constantly surfeiting himself with indigestible food and washing this down with heavy draughts of alcohol, besides committing many other sins against his health. One-third of the fatal cases of heart disease in Munich and said to be due to beer and tobacco. Does anyone dream that there can be some drug which shall prevent this mortality so long as the predisposing causes are active?

There has in these latter days arisen a so-called sect of osteopaths, who allege that all diseases are due to displaced or improperly formed bones, and proceed to treat all manner of maladies by manipulation, asserting that after a sufficient number of treatments, the offending osseous structure will be put back into its proper place, and the malady arising from the lesion will be permanently cured, always provided that the bone or bones do not slip out again, which would, of course, call for another course of treatment.

The great want of humor which characterizes the "quack" strikes one at every turn as he reads the history of the medical fads and follies which have played their longer or shorter part on the medical stage, and then passed into oblivion. Did I say oblivion? I should have said behind the scenes. For as we have already seen, they are sure to be reproduced like the quaint habiliments of some costumer which are dragged into the light from time to time, and serve to clothe now this player, now that. To-day an old uniform may be made to cover the body of some actor who impersonates Frederick the Great, and next week the same garments may deck out the counterfeit presentiment of Andrew Jackson. So the discoveries and inventions of the quacks are, as it were, kept in stock and brought forward from time to time as the great and only discovery of the founder of some new system of treatment. No matter how absurd the claims of these worthies, may be, clergymen, teachers and statesmen rush to adopt them. The divine revelation fraud is perhaps the best paying property of the entire

repertoire. It is worked over and over again, and as the world gets richer, it seems that there is more money to be lavished on the Dowies and Eddys as they come along. Mesmer accumulated a great fortune in Paris; but as he did not claim a Divine origin for the power of animal or sidereal magnetism, as he called his system, which was really as you will remember, mostly hypnotism, he was finally driven out of France. Gassner a wild medicine man or priest of Switzerland, treated all his cases by manipulation in the 18th century. He was apparently the original osteopath. After consulting with him, Mesmer is said to have given up his theory of sidereal magnetism and practised upon his patients by manipulation, aided by dim lighted rooms and soft music.

The Rosicurians, a sect or school of medicine of the 17th century, claimed to possess a secret gift or method of manipulation, which cannot be learned, the osteopaths say, from books, but which enables them to cure diseases. This method of treatment was practised in this country by an Italian woman, called Dolchin, before its discovery by Still. So this idea of illness being due to some derangement of the joints or bones that go to form the anatomical machine, was several hundred years old before the school at Kirksville was thought of. So Madam Eddy filched her system from one Quimby, who probably in turn got it from someone else.

General Plesanton, an officer in the Civil War, had a theory that he could cure disease by passing the sun's rays through blue glass and exposing the patient to them. Inasmuch as he was a military man, and not a practitioner of medicine, and made the extravagant claims for his method that no scientific man would have the want of humor to presume to make, the matter had for a few years quite some vogue, but gradually died out. To be revived again, at least in a measure, by Finsen with his violet rays, with however this important difference. The latter was a physician and a scientific man, consequently the Finsen treatment is being slowly and carefully introduced. It excites no furor, the newsmongers and yellow journalists have scarcely heard of it, and its discoverer very probably has died a poor man.

It is doubtful whether the great Koch has accumulated much property, while

the numerous quacks who have appropriated his name and attached it to various alleged cures and systems of treatment, are probably coining money. If they do not, it is simply because they do not advertise sufficiently. We can draw a parallel between the celebrated Perkins tractors and metallo-therapy. The latter is a system of treatment which has come up and died down again in my recollection. The Perkins tractors, of perhaps a century ago, were alleged to have great, if not absolute curative powers, by inducing, I suppose, an electric current between the metal discs or bulbs which were united by a handle and were passed over the body. Then wooden tractors were found to act just as efficiently, and finally the device passed off the stage to be brought back a score of years or more ago as metallo-therapy. This last was, however, I believe, in scientific hands and instead of setting the whole world agog like its quack prototype, soon gave way to more efficacious methods of treatment.

Mesmer also in the beginning of his system of quackery used a magnet which he rubbed over the body of his patient, afterwards he found that the hand was just as efficacious and discarded the magnet; just as the wooden tractors were found to be as potent as the metallic in the Perkins system. Just as liver pads in our own day made of brown paper have accomplished as much good as those made of medicated herbs. The special agent makes little difference when the benefit if any, exists in the mind of the patient.

When the great Galen particularly wished to escape some unpleasant and dangerous duty he had to invent an account of a vision from Esculapius, and if we examine many alleged systems of medicine running through the ages, from mythological times to our own, we shall find a large proportion of them were alleged to have been founded on a divine revelation, or that at least certain all important and fundamental truths were especially and exclusively revealed to the prophet or prophetess who promulgated the system.

Professor Smythe tells us that Hahnemann claimed that "the law of similars was a divine revelation to him, an inestimable boon from God to man, and that the medical world had been groping in darkness until his coming. Hahnemann points out several examples where some of

his illustrious predecessors had almost caught a glimpse of the great truth, but the privilege of bringing it forth in the full light of day was reserved for him.

That this method of establishing a system of practice is still efficacious is illustrated by the success of Mrs. Eddy, who after a checkered career, having been divorced from one husband and having buried two others, and having also, according to Dr. Buckley, been concerned in the promulgation of some method of irregular practice of medicine, finally had a "revelation from God" which is duly set forth in "Science and Health," and which it is claimed has now nearly 2,000,000 adherents. It matters little to these deluded people that a document is now in existence and in the possession of the *New York Times* which shows conclusively that the system was the invention of one Phineas Parkhurst Quimby of Portland, Me., and was called by him "Metaphysical Healing," without any pretense that the same was of divine origin. This man Quimby was called "Doctor" because he spent his time treating patients, although he was not a physician. but a plain every day "quack," whose theories would probably never have had anything further than a local reputation enforced by their author's own personality, and would have disappeared from sight when he died like thousands of other similar schemes; had not the "prophetess" gotten hold of them and pushed them into prominence by her blasphemous use of the name of the Almighty in exploiting her alleged miraculous revelation.

It seems unkind to say the least, to the memory of the departed Quimby not to acknowledge her indebtedness to him. However time may do justice in this respect, because the *Times* assures us "Dr. Quimby's" treatise sets forth the system in the ideas and form of expression used in "Science and Health" with the exception noted that the original does not bring in any pretence of divine revelation, nor endeavor to make the Deity a party to the fraud.

These remarks are not made with the expectation that they will have any effect upon people so besotted as the Eddyites, of whom the public prints tell us that in 1900 crowds visited Concord, N. H., the home of the "seeress." There were delegates from nearly every state in the Union. Few, if any of them, got a glimpse



of her, though many enjoyed the privilege of kissing her front door step.

"Quacks" and charlatans claim as their own what they have filched from others. But nearly all of these pretenders in order to succeed must appeal to the religious feeling or superstitions of the masses, and if they do that, success seems assured at least for a time. Witness John Alexander Dowie the "Divine Healer," that to borrow a slang phrase he "heals himself," can scarcely be questioned. See also Sampson, Sanford and Schlatter in our own day, not to mention thousands of similar characters in history; both in and out of lunatic asylums, and still the public is waiting for some new thing. After the collapse of Theosophy, Christian Science. After it, what?

Ladies and Gentlemen, fellow members of this ancient and honorable society, because I have said some harsh things about irregular practitioners of medicine, do not imagine that I wish you to reject their systems and teachings *in toto*. Nothing is absolute in a science—or should I call it an art?—depending upon so many and such varying factors as ours. Ambrose Paré did not despise a "quack" so long as he could learn anything from him, and my experience is that they can all teach us something. We are not infallible, nor are we omniscient, let us with open minds investigate each new theory or system, as it comes along, and truthfully acknowledge the value of anything that may be good in it. Quinine has its drawbacks. Calomel its advantages.

High dilution homeopathy, now for the most part a matter of history, which was really nothing except the exhibition of water allied to mental suggestion, has done a world of good. Osteopathy has its place under the control and supervision of a skilled diagnostician and wise clinician. Christian Science, or "metaphysical healing" has ministered to the mind diseased when ordinary therapeutic methods have proved of no avail. Why can medical men not exercise judgment and pick out what is good in every so-called system? And why especially can they not educate the people so that the latter will not believe every foolish thing that is told them, and put their trust in every fakir and pretender that wishes to exploit them for gain? After many slips and falls, by slow and painful steps, interspersed by many missteps, medicine is gradually

emerging from the realms of superstition into the light of science. But the stolid adherence of the doctors themselves to any precedent, no matter how foolish, is exasperating.

William Harvey's discovery of the circulation of the blood was greeted by the bitterest opposition and it was twenty-five years before it was generally accepted. So to-day, we are clinging with deathlike tenacity to the exploded theory of uricacidoemia. Because apparently our mental attitude always seems to be in opposition to any change of our opinion and practice. O! slavish unthinking adherence to precedent! And blind unthinking practice of routine! What was good enough for our fathers in medicine is not good enough for us. Thank God! the world does move!

H. C. Wood has said that the success of homeopathy has been due to the fact that at the time of its promulgation, the regular practice was doing more harm than good. And Quine, whom I have already so largely quoted, says, "Can you not read the handwriting on the wall? Homeopathy has done a noble work, it has served its purpose well. Look back a hundred years and contrast the methods of practice then in vogue, with those which are in favor to-day, and tell me whether a stupendous revolution has not been wrought? And largely through the instrumentality of Samuel Hahnemann. Then the practice of medicine, as it appears to us now, was almost senseless savagery. Bleeding, bleeding, bleeding for everything. Blistering, purging, vomiting, salivating the sick to death. Look at the prescriptions of those days and we find that many of them contain from ten to sixty ingredients." (The celebrated "theriac" contained about one hundred and fifty.)

"Hahnemann banished the lancet. He demonstrated that the sick could get well without any medicine at all. He gave an impetus to, if he did not originate the systematic study of the physiological action of medicines. He compelled men to think. He taught prudence and accuracy, the prudence of small doses and the accuracy which belongs to simplicity in prescriptions. He gave a powerful impetus to pharmacy. He was one of the benefactors of mankind," and I may add richly deserves, mistaken and wrong headed as he was, the recognition due to his genius and his daring. The lessons to be learned

from his doctrines are of inestimable value, and can perhaps best be summed in the words, do not over treat your patient and give Nature a chance. Let us then as men survey the broad field of medical history, and note the appearance and disappearance of many axioms and dicta, of systems and parts of systems, of ideas and theories, of so-called panaceas and specifics, which dot the fabric of medical history as it comes from the loom of time, even as peculiarly colored threads appear and disappear in a web of cloth.

Let us take a catholic and charitable view of the situation, not forgetting that we sometimes may like our ancestors, be mistaken. But chiefly let us in the interest of humanity and of the progress of our art, present a united front to "quackery" and against all exclusive and purely theoretical systems of practice. We have seen that there is good in most irregular forms of practice, but it is equally true that any exclusive dogma—and the claim of exclusiveness is tantamount in the present state of our knowledge to quackery—must be in the long run exceedingly pernicious, and should not be countenanced. We cannot learn our part in a day, we can scarcely learn it in a life time.

We can and we must however, stand together for honest medicine, for the instruction of the laity in hygiene and in correct habits of life, and for the acme and essence of all true medical effort, to wit, preventive medicine.

The day of theoretical therapeutics has gone by. The different systems and practices have played their part on the stage of medical history and are giving place to scientific medicine.

The wise and the learned outside of our ranks have found out that health cannot be bought, but that it can be earned. That disease can be prevented, whether or not it can be cured. Let me close with a quotation from Joseph Chamberlain the English statesman. He says:

"In the last few years medical research, aided by surgery, has thrown a flood of light on the origin of disease, and that was a step towards its cure. While all looked with confidence on curative medicine, all agreed that preventive medicine was better still. Without sanitary reform, social reform was an empty phrase. The housing of the poor, the attempt to prevent the deterioration of the race, and other things to which legislators devoted such of their

time and attention as they could spare from party conflicts, all such things were founded on sanitary reform. Preventible disease was the great agent filling our workhouses, raising our taxes, weakening the fiber of the people, preventing us from competing successfully in that eternal struggle for existence which must go on as long as the world lasts. \* \* \*

That was the reason why an unknown student working in the laboratories of London or Liverpool might do more for the empire than any statesman, however eminent his position."

### PROGRESS OF OPHTHALMOLOGY AND OTOTOLOGY.\*

BY TALBOT R. CHAMBERS, M. D.  
JERSEY CITY.

The past year has been marked by scientific research. In regard to new methods of treatment and new operations, with perhaps the lone exception of removal of the lachrymal canal, there is but little of importance to record. Further and more systematic study has challenged the usefulness of the operation for the removal of the superior cervical ganglion to cure glaucoma.

In the *Archives of Ophthalmology* Vol. XXXIII, Nos. 1 and 2; Dr. Herman Knapp has an interesting biography of Herman VonHelmholtz with personal recollections.

In the *British Medical Journal*, September 26, 1903, Edward Nettleship, London writes on Eye Changes in relation to Renal Disease. Any evidence as to the state of the kidney before the first pregnancy should be recorded. This may be of great importance in deciding whether or not the uterus should be prematurely emptied. He agrees with the usual statement that the prognosis in renal retinitis is better than in ordinary cases. He says, "I feel clear in my own mind that there is only one sort of renal retinitis and that the many varieties and changes seen, indicate only different stages and degrees of general oedema, exudation and degeneration."

In *Wiener Mediz. Presse*, December 6, 1903. Dr. A. Elschmig reports on the examination of 209 cases of nephritis in five years. He stated that the prognostic

\*Read at the 138th annual meeting of the Medical Society of New Jersey.



importance of the retinal changes as regards the prognosis of life, were as follows: Of 74 patients with normal interior of eye, only three died from nephritis within six weeks: i. e. 4%. Of 60 patients suffering only from arterio-sclerosis, 4 died within six weeks, and 6 within six months: i. e. 10%. Of the 134 patients without pathognomonic retinal changes 16 died within six weeks and 17 within six months: i. e. 26%. The high mortality of those cases with retino-choroiditis albuminurica, is especially noted. All six patients died within six weeks after recognition.

In the *Archiv. F. Augenheil* XLIX B. H. I. Kampherstein of Breslau gives a summary of the ocular conditions found in multiple sclerosis, from a study of 150 cases occurring in the practice of Uthoff, Lubbers and his own.

In the *Annals of Ophthalmology*, April, 1904, Dr. Samuel Horton Brown of Philadelphia, gives a historical review of the surgical treatment of cataract. There is a large bibliography and the paper is intensely interesting and valuable.

In the Report of the Transactions, Ophthalmological Section, British Medical Association, July, 1903, Major Henry Smith gives report of 8500 cases of cataract extraction, 6500 of which were extracted in their capsules. Of 1023 cases, the vitreous escaped in 6.6%. In 4% the capsule was left behind and 99.4% gave first-class results. By operating in this manner, he says we practically eliminate iritis and after-cataract and the operation is in every way, more desirable. The operation is performed by making an incision at the corneo-scleral junction and at once taking out the speculum. The upper lid is then raised by an assistant with a hook, while with his thumb he depresses the lower lid. This controls the orbicularis which in nearly all cases is the cause of the vitreous being lost. By pressure on the cornea and counter pressure at the wound, gradually the lens in its capsule is protruded. He says the visual results of this operation are far ahead of any other method; and that, by it, iritis and secondary cataract are practically eliminated.

In the *Annals of Ophthalmology*, April, 1904, Dr. W. E. Gamble, of Chicago, has given a statement of our present knowledge of the architecture of the cerebral apparatus in the light of the neuron theory and the

later clinico-pathologic investigations. He presents an extensive and exhaustive bibliography.

In *New York Medical Journal*, January 2, 1904, J. H. Woodward, New York, gives a history of a case of optic neuritis with a condensed resumé of the papers by Antonelli and LeRoux on the ocular complications of mumps. Eighteen cases of optic neuritis were recorded as due to mumps. The wide range of the eye diseases is as surprising as it is interesting. Abscess of lids, conjunctivitis, keratitis, iritis, transient interference with vision and accommodation. Blanchard in 1899, reported a case of atrophy of the optic nerve.

In *Klin Monatsbl.* for August, 1903, Dr. G. Levinsohn reports a few cases with the following interesting resumé. Contusion of the eye-ball causes in the great majority of cases, traumatic mydriasis; in a few, traumatic myosis. The latter is either a reflex from irritation of the fifth nerve, or due to paralysis of the dilator with or without injury to the dilator muscle. Reversely, traumatic mydriasis very frequently is combined with paresis of the dilator which may be demonstrated by the fact that the pupil enlarged by daylight remains smaller than the healthy pupil on shading.

In Philadelphia Hospital Reports, Vol. V, 1903, Dr. Charles A. Oliver on gonococcal conjunctivitis treatment says; the chief requirements are 1, Free and sufficiently oft-repeated but gentle cleansing. 2, Early obtainment and maintenance of full atropine dilation. 3, Lowering the vitality of the invading cell form into an involutinal condition with consequent lessening ability to multiply, this is done by ice compresses. 4, Maintenance of the vitality of the organ where there are trophic disturbances, this is done by application of heat. 5, Destruction of the intruding floral germ material by nitrate of silver. 6, Local and general isolation, together with treatment of similar infections of other mucous surfaces by local and general medication. 7, Support and improvement of the general condition of the patient. 8, Skilled nursing, so long as germs are present.

At a meeting of the Eye Section, N. Y. Academy of Medicine, May 16, 1904, Dr. Arnold Knapp presented a paper on the "Influenza Group of Bacteria in Conjunctivitis, especially in Trachoma." He said

by the term group is meant the influenza bacillus and the organism closely allied to it, called the pseudo-influenza bacillus.

The Koch-Weeks bacillus is regarded by Kamen, Rymovitsch, Jundell and A. Knapp to be identical with the influenza bacillus. The opposite view is held by Zur Nedden, Axenfeld, Mueller and Morax. It is easily differentiated from the xerosis bacillus which is a constant inhabitant of the conjunctiva and has no pathological importance. Mueller has never found the influenza bacillus in non-trachomatous cases and is inclined to regard it as a cause of trachoma. Knapp in studying 80 cases of acute trachoma (so-called) found the influenza bacillus in only 4 cases. He complains that staphylococcus pyogenes albus and xerosis bacillus grow so much more quickly and profusely that the defining of the influenza bacillus was difficult. Pfeiffer also discovered the pseudo-influenza bacillus. He found it in the pneumonias of children, not of influenza origin. The pseudo-influenza bacillus has also been found by Kossel and Hartmann in the otitis media purulenta of sucklings. We are unable, today, to distinguish between these forms. Knapp's conclusions are: 1, The Koch-Weeks bacillus is not identical with the influenza organism. 2, There is an influenzal conjunctivitis without other manifestations of influenza. 3, The Muller trachoma bacillus was found in 8 out of 120 fresh cases of trachoma which I have examined. 4, This organism could not be differentiated from the true or pseudo-influenza bacillus morphologically, culturally nor by animal experimentation. 5, It seems probable that its presence in these cases of trachoma was accidental.

In *New York Medical Journal*, November 21, 1903, M. W. Zimmerman writes on "Ocular Headaches and Other Ocular Reflexes." Of 2000 refraction cases, systematically reported, 1427 presented some form of headache. 71% purely frontal pain. 49% were compound hypermetropic astigmatism of low or moderate degree. Three years was the average length of time before a change of the correcting glass was found necessary. In a group of 800 cases, in which the results of treatment by correction of the ametropia was recorded, 86% of practical cures was obtained.

In the *Annals of Ophthalmology*, April,

1904, Dr. Frank Allport of Chicago, shows the necessity for the annual systematic examination of school children's eyes, ears, noses, and throats by school teachers. He says: "I have only to say that anyone who is competent to be a teacher, can make the tests with perfect ease. In classes of fifty, the tests can be easily finished in a week or a day, allowing from 3 to 5 minutes to a pupil. Instead of imposing extra work on an already overburdened teacher, their work is lightened by having children who are less stupid and who will require less exhausting teaching labor on the part of the teachers to maintain the grade." He does not tell how to overcome the objections on the part of our Boards of Education to spending money for this most valuable scheme. His ideas are very similar to those of Risley referred to last year in this report.

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## OTOLOGY.

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At the meeting of the German Otological Society in Wiesbaden, May 30, 1903, Prof. Koerner stated that otology was slowly making its way to a similar position with other special branches. A new ear clinic had been opened in Heidelberg and the second full professorship in otology in Germany has been established.

In the *Archiv. Otology*, August, 1903, Dr. J. A. Spalding has a paper with the heading "Tinnitus" with a plea for its more accurate notation. He aptly remarks "Nothing especially new regarding the pathology of tinnitus has appeared in the last two years." He proposes to analyze each case more accurately, to test each patient along the key-board of the piano with the purpose of discovering, if possible, a more accurate location of the given sound in the labyrinth and later on of establishing a more rational basis for treatment than that which we now possess. He adduces the theory that if the perception of the tone of the tinnitus is pleasant to the patient when sympathetically vibrated by musical instruments, the tinnitus is labyrinthine; if unpleasant, harsh and sensitive, then the tinnitus is due to obstructed condition, foreign bodies, cerumen, tympanic effusions, etc. This opens a new field in the treatment of this obstinate affection.

In the *Archives of Otology*, June, 1903, Dr. P. D. Kerrison concludes. 1, That in



the operation upon the mastoid process, the antrum should always be approached from the nearest point upon the mastoid cortex, which in the great majority of bones is the small triangular space just behind the spine of Henle. 2, That this point of attack not only furnishes a guide to the site of the antrum, but also gives fairly accurate data as the depth beyond which it is not safe to proceed. 3, That the depth of the antrum is always less than the length of the postero-superior wall of the meatus; that in the great majority of bones, it is not over 12mm.; is often very much less and is never greater than 15mm. or  $\frac{5}{8}$  of an inch; and therefore, 4, That in a surgical attempt to expose the antrum, the depth of five-eighths of an inch should be regarded as the extreme limit of safety.

In *Nordiskt Medicinskt Arkiv*. Vol. XXXV, E. Stangenberg says that in 1000 cases of diphtheria, he found 24.3% with ear disease. There occurred during the ages up to 5 years, 44.85% and between 5 and 10 years, 32.51%. The intensity of the diphtheritic process seems to stand in no constant relation to the occurrence of the ear disease.

In *Archiv. Otology*, 1904, Dr. C. W. Richardson has a paper on osteo-myelitis of the temporal and adjacent bones of the skull as a sequel to otitis media purulenta. This paper and the discussion later on, in the same archives, are most instructive and interesting.

Much has been written on sinus thrombosis. Especial attention is directed to Grunert's further contribution to infectious thrombosis of the bulb of the jugular vein and on the question of its operative treatment in A. F. O. Vol. LVII, p. 23. It is too long for abstracting here.

## THE DIAGNOSIS OF BONE AND JOINT DISEASES.\*

BY SIDNEY A. TWINCH, M. D.,  
NEWARK, N. J.

The bone lesions which the surgeon is most often called upon to treat are the following:

Tuberculosis, osteomyelitis, malignancy and syphilis.

*Tuberculous Joint Disease* is the most frequent of all the osseous diseases of child-

hood, and the rarest in adults. It is by far the most frequent of any of the surgical affections of childhood. In adults it is rare, but when it does occur, it is usually in those individuals who have suffered from the disease in childhood and have been considered cured, yet in adult life the disease has reappeared. Although primary tuberculous osseous disease in adults is rare, as has just been said, of course it does occur, and every once in a while we see a case.

*Location.* Tuberculous disease of bone occurs in the joints and epiphyses and seldom, if ever, in the shafts of the long bones. If the disease is in the shaft of the bone you may almost discard the thought of tuberculosis.

*Symptoms.* In considering the symptoms of tuberculous bone disease we will only mention those which aid us in making an early diagnosis, because in the later stages, when the patient has other evidences of the disease, we are not likely to have any special difficulty in making a correct diagnosis. First as to the location. This disease practically always occurs in the joints or epiphyses and seldom if ever in the shafts of the long bones. Then, having established the rule that tuberculous disease must be in or near the joint, what symptoms should we expect to find? The principal characteristic symptoms are muscular spasm, pain, heat, swelling and limp, if in the lower extremity. Muscular spasm is only found in diseases which affect the joints, and, when present, is one of the earliest symptoms to appear. When the spasm is well marked, it is one of the most reliable of all the joint symptoms and can be easily mistaken for ankylosis, by those not accustomed to the frequent examination of joints. This spasm causes flexion at the knee, elbow and hip, and extension at the ankle. Flexion at the hip, knee or elbow is very characteristic and often gives at a glance an important clue to the diagnosis.

*Pain* is also an early symptom and may occur in the affected joint, or may be referred to some neighboring region. For instance, in tuberculous disease of the hip-joint, the pain is usually referred to the knee, or to a point on the thigh midway between the hip and knee. Another instance when pain is not referred to the seat of the disease, is in tuberculous osteitis of the spine. In this disease the pain is transmitted through the intercostal nerves to the chest or abdomen. In the latter location it is frequently mistaken for stomach-ache or indi-

\* Read before the Orange Mountain Medical Society, January 20th, 1905.

gestion. When a child complains of persistent abdominal pain, he should be stripped of his clothing and his spine carefully examined. In tuberculous disease of the hip-joint, when the pain first appears, it is usually slight and not constant, but as the disease progresses, the pain increases in severity, being very much increased on the slightest movement.

*Swelling.* In the superficial joints, such as the elbow, wrist, knee or ankle, swelling is marked and of characteristic appearance. Owing to the tumefaction, the structures about the joint feel soft and doughy to the touch.

*Heat.* In the superficial joints, local heat is a constant and reliable symptom, which can be readily detected by the touch. When feeling for this symptom it is often advisable to compare the suspected joint with the well one of the opposite side. Normal joints are cooler than the surrounding flesh.

*Limp.* In tuberculous disease of the hip joint the limp appears early. The limp, in the early stages, may first appear, and after a few days disappear, and suddenly without any apparent cause reappear again for a short time. Such an intermittent limp is almost pathognomonic of tuberculous disease of the hip joint.

Synovitis is not a symptom of a tuberculous joint. There may be pus in a joint, and in such a case one would think of tuberculosis, or gonorrhoea, or one of the various forms of infected joint.

In *Osteomyelitis* we have the acute and chronic forms.

*Acute Osteomyelitis* usually attacks the shafts of the long bones or the epiphyses. The onset is usually ushered in by severe chills and high fever, and the familiar train of symptoms which are well described in all the textbooks. Suffice it here to say that as soon as the diagnosis is made and pus detected no time should be lost in opening up the bone. Sometimes a delay of a few hours or over night will be sufficient to cause the death of the patient from septic absorption.

*Acute Arthritis of Infants*, which is really an acute osteomyelitis, commences in the epiphysis but rapidly spreads to the head of the bone, causing its destruction, with the formation of a copious quantity of pus, followed by dislocation.

*Chronic Osteomyelitis.* This form runs a protracted course if the disease is left to itself or wrongly treated. If, however, a correct diagnosis is made early, and proper

surgical measures adopted, it is one of the easiest of all bone lesions to cure. Recovery is usually quick and satisfactory. Chronic osteomyelitis always occurs in the shafts of the long bones or in the epiphyses. Bearing in mind this important distinction occasionally saves the surgeon from making a very serious mistake in diagnosis.

*Symptoms.* The principal symptoms are pain, swelling and tenderness. The pain is usually of a deep gnawing character, and usually not very acute. Muscular spasm is absent because this disease does not invade the joint. Local heat is usually absent, but general or systemic fever may be present.

*Malignant Bone Disease* is either carcinoma or sarcoma. The former is comparatively rare and always secondary, indeed usually metastatic. The latter is of frequent occurrence and always primary. Unlike osteocarcinoma, osteosarcoma is a disease of early life, even of infancy, and only a few cases have occurred after forty years of age. Osteosarcoma seldom attacks joints although it may be in close proximity, and at times passes outside the joint from one bone to another. The lower epiphysis of the femur and upper epiphysis of the tibia are favorable sites for the growth. Great care is necessary not to mistake this disease for tuberculous disease of the joint. The earliest differential diagnosis can be made by a good radiograph and later in the disease, suspicion should always be aroused by dilatation of the veins of the skin over the joint caused by compression of the deep vessels. At this stage also aspiration will usually aid in clearing up the diagnosis, pus being obtained in the tuberculous joint. In the latter condition, there is well marked muscular spasm, while the joint is freely movable where there is an epiphysial growth.

We still have left *Syphilitic Bone Disease* to consider. This disease may be acquired or congenital.

*Acquired Syphilitic Bone Disease* appears in various forms. The tibia is a favorite seat of the disease. It is characterized by a thickening and enlargement of the bones, with pain on pressure over the crest of the tibia. There is another class of cases where syphilis of the bones gives no symptoms for a long time. The patient may complain of long standing, dull aching pain, with diminutions and exacerbations, the latter especially at night. This, in connection with thickening of the bone usually leads to a diagnosis as soon as the history of syphilis is



obtained. In the absence of such a history, however, the surgeon is liable to think of subacute osteomyelitis, abscess of bone or tuberculosis. The diagnosis is often difficult, and in doubtful cases specific treatment should be tried.

In *Congenital Syphilis* there are usually other signs besides the osseous conditions which lead us to the correct diagnosis. This form of specific disease manifests itself in various ways. Specific dactylitis has been shown here as a disease of the hand in the tertiary stage. This case can be diagnosed almost at a glance from the general appearance of the child—the open sores, the old cicatrices and the enlargements of the soft parts as well as of the bones.

In the diagnosis of these bone lesions the X-ray is often of considerable service. Frequently we diagnose the trouble and use the X-ray to confirm it. Being backed up by a radiograph not only is a great satisfaction to the surgeon but it also inspires the patient with confidence, and he feels that you are doing all that can be done to ascertain the exact nature of the disease.

### INFECTION WITH BACILLUS AEROGENES CAPSULATUS FROM A LION'S BITE.

By FRANK W. PINNEO, M. D., NEWARK, N. J.

The following case occurred at St Barnabas Hospital on the service of Dr. Hollister.

Edward Thiele. Age 45. Married. Hostler. U. S. Admitted Sept. 10th, 1904.

Previous history.—Always a very strong, robust man. Moderately alcoholic.

Present illness.—While on a visit to Olympic Park menagerie he pushed his arm through the bars of a cage to arouse a sleeping lion, which he had previously owned. His arm was seized by the lion's jaws, which had to be forced open to release his arm. He was immediately sent to the hospital. On admission (8.30 P. M.) he complained of severe pain in arm and was suffering from slight shock; but had lost very little blood.

Examination.—Lacerated wound of right arm extending from  $3\frac{1}{2}$  inches below shoulder to elbow, involving the biceps and coraco-brachialis muscles, which were completely severed; the triceps also being slightly lacerated; the median nerve was torn; great vessels intact. On the forearm were seven small wounds involving the flexor muscles, having probably been made by the claws of the lion.

Treatment.—Immediate operation under ether; thorough cleansing of the wounds; suture of the muscles; irrigation and drainage.

Course.—Twelve hours after operation, temperature  $101^{\circ}$ , pulse 120, respiration 34. Fifteen hours after operation, temperature  $104.8^{\circ}$ , pulse 130, respiration 36. Examination of the wounds showed boggy areas over the whole arm with an emphysematous crepitation. *No pus* present, but

an odor so foul that the whole corridor was almost uninhabitable. This emphysematous condition rapidly extended to the neck, thorax and abdomen. The general condition of the patient became rapidly worse; temperature  $105^{\circ}$ , pulse and respiration very rapid and death occurred in this condition at 3 A. M. Sept. 12th, about thirty hours after admission to hospital. Diagnosis.—A stained specimen of smear from the wound showed the bacillus *cerogenes capsulatus* (Gram stain).

This may be taken as a typical case of this infection. The germ is probably more wide-spread on the earth and more often present in human organisms, in the hollow viscera in health, and in any tissues, when injured, than the number of reported cases would lead us to think. Free oxygen is its natural enemy, and other infections with it (as in a wound) favor its destruction.

Throughout medical literature frequent mention is made of the formation of gas after death in the blood, the glands and the connective tissues, long known as not due either to admission of atmospheric air or to putrefaction. Cases of very virulent wound infection were also known, characterized by very rapid gangrene and the same gas formation, having generally a fatal prognosis.

In 1891 Welch (Johns Hopkins Bulletin 1892 iii 82) discovered the micro-organism which he named bacillus *aerogenes capsulatus*, in a case of pulmonary tuberculosis and aneurism of the aorta, death being due to rupture of the aneurism through the chest wall. The autopsy was made *eight hours* after death, while the body was still warm, hence excluding the presence of putrefactive germs as the cause of the gas in the tissues. Gas was found so generally through the body that the presence of atmospheric air was excluded. With aseptic precautions the blood yielded pure cultures of this bacillus in enormous numbers always associated with gas in the vessels. Finally, inoculation experiments proved the specificity of this organism. Frankel later demonstrated the identity of it in what has been variously called, "Emphysematous Gangrene," "Gaseous Phlegmon," etc.

Morphology.—The bacillus is a thick, straight rod about three-fourths the size of a red blood cell. It occurs singly, in clumps, or in *short* chains, has a capsule, is non-motile, without spores, much like *B. anthracis*, but with two marked differences. The former do not grow in *long* chains and the ends are not so sharply square-cut.

**Culture**—It is easily grown on any media by methods excluding oxygen, is an obligatory anaerobe, and generates an odorless gas which contains hydrogen, burning with a pale, blue flame.

**Inoculation**—It is not pathogenic till damage to the tissues destroys or lowers their vitality, when infection may occur directly in such tissues or indirectly through the circulating blood.

In 1896 Welch (*Journal Exper. Medicine* 1896 i 5) reported all cases to date. An analysis of them shows the following etiological classification:

External injury evident .....	6	
External injury not known.....	1	7
Viscus perforated .....	6	
Intestinal infection without perforation .....	4	
Throat infection without injury....	1	11
Lung infarct from endocarditis....	2	
Urinary inflammations .....	3	
Systemic infection without explanation .....	1	6
Total .....	24	

Looking up most of the cases reported since Welch's shows about the same causes. Of 24 cases, 46 per cent. originated in the alimentary tract and 29 percent. in external wounds. The other methods of infection all make the diagnosis possible, if in any case, having constitutional symptoms of some infection, there be but the one sign, emphysema, not due to an opening into the lung. If, in addition, a bacillus morphologically like the one described can be found (readily stained if present) the diagnosis is practically certain. For though there are other gas making germs, the clinical picture given is sufficient to justify the prompt and radical incisions which are absolutely necessary. Because the course of the bacillus aerogenes infection is exceedingly rapid and in half of the cases the result is fatal under any treatment. The *rapid course* has been the most prominent feature in the two cases known personally to the writer. Indeed sometimes *no* gas is found, but the rapid gangrene proves the infection. Would not this explain some deaths we have seen after intestinal operations where nothing but gangrene (without pus) was found and "Shock" was given as the cause of death? A point which seems worthy of attention is the

blood count. Would not absence of a leukocytosis (as found by Welch in cases of pure infection by this bacillus) be significant? If pus is present, it is due to other (pyogenic) infections, and not to this. A mixed infection might be salutary in its effect on this organism. In a case reported by Eagleton, *JOURNAL MEDICAL SOCIETY OF N. J.*, December, 1904, the mixed infection was no doubt a saving factor for the patient. The ecchymosis and anesthesia, he calls attention to, were not noted in the case here reported.

In conclusion the following thoughts are suggested:

1. The lion's bite was not significant. The coincidence of other, earth-soiled, wounds puts the case among the twenty-nine per cent. from external injury.

2. The bacteriological search was well rewarded, and if made in other cases, more obscure—like some intestinal ones—might it not reveal as a cause of death this special infection, which otherwise might be attributed to "Shock?" As 46% of cases have their origin in the intestine (16.2-3% without perforation) it might help a diagnosis, even where no emphysema was found.

3. A leukocyte count would afford valuable information.

Interesting in this connection is the finding of *B. aerogenes capsulatus* in blank cartridge wads in the search for *B. tetani*. Varying reports have appeared. Dolley of Cleveland reported (*Journal A. M. A.* February 11, 1905) finding *B. aerogenes capsulatus* "in a large proportion" of 250 wads of different makes, while he failed to find any *B. tetani*. He remarks that "*B. aerogenes capsulatus* grew so rapidly and vigorously that it apparently crowded out *B. tetani*." This experience, however, is at variance with that of Kitasato, who discovered the *B. tetani*. He found that "all other organisms and spores except those of the tetanus bacillus were killed off" in cultures containing various germs.

#### A USEFUL CIRCULAR.

The Atlantic City Board of Health has issued a leaflet of information for the family in case of contagious diseases, which takes up plainly and concisely the general precautions to be observed, and then gives special recommendations regarding typhoid fever, scarlet fever, diphtheria, measles, whooping cough, mumps, chickenpox and disinfection. This is intended "not to supplant but to supplement the advice of the family physician."



## THE PATHOLOGY AND TREATMENT OF CRURAL ULCERS.\*

BY HENRY A. PULSFORD, M. D.,  
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The crural ulcer is the result of a common pathological condition consisting essentially of a lowering of the vitality and powers of resistance of the tissues of the legs. The causes to which this condition is due, though occasionally of nervous origin, as in hysterical ulcer, the perforating ulcers of tabes, or the gangrenous ulcers of Raynaud's disease, are usually to be found in changes in the circulation of these parts, of which the most common are undoubtedly varices of the saphenous veins. These in turn are due to the presence in the abdomen or thorax of some temporary or permanent obstruction to the venous return.

Although there can be no question that the impairment of the nutrition in these cases is due to the condition of the veins, the facts that ulcers of the leg occur in the absence of varices, and that many persons who have varicose veins never develop ulcers, prove that there are other important elements in the pathogenesis of this condition. Of these the most important is probably endarteritis, whether of senile, alcoholic, syphilitic or diabetic origin. The co-existence of varicose veins and senile endarteritis is certainly the condition which produces the great majority of crural ulcers, and it frequently appears from the history of these cases that the varices exist alone through many years of early middle life, the ulcers developing only when the nutrition of the parts has been further impaired by degenerative changes in the arteries.

It is not strange that the same conditions which favor the formation of ulcers should also predispose to eczema. But I have so frequently seen first eczema, and then ulcers develop in cases where both varicose veins and endarteritis might be excluded, that I believe we must also count among the causes of ulcers those obscure conditions of the economy which give rise to eczematous eruptions.

Much as the development of an ulcer may be favored by these conditions, it rarely occurs except as the immediate result of trauma or infection. That trauma without infection may under certain conditions pro-

duce a characteristic ulcer, I have repeatedly seen. An instance of this recently occurred in the case of an old woman who for months had been under treatment for three indolent ulcers. The whole leg had been thoroughly cleansed and dressed with Unna's zinc-gelatine dressing, which is aseptic and impermeable. In cutting through this for the purpose of removing it, she was slightly wounded on the front of the ankle. The wound, though cleansed at once and covered with Unna's bandage, at the next dressing, ten days later, had all the characteristics of a chronic crural ulcer.

In most cases, however, infection is added to trauma as the exciting cause of the ulcer, and persists throughout the disease as an important element in its pathology. The trauma is usually of a trifling nature, such as scratching, for which the pruritus or eczema, almost invariably present under circumstances favorable to ulceration, gives occasion; and the germs in the fingernails or on the skin cause the phlebitis or other localized infection, which destroys the skin and results in an ulcer.

The infecting agents in these cases are probably for the most part streptococci or staphylococci, which in the lowered condition of the tissues may produce areas of necrosis about the point of infection. I recollect seeing a case of erysipelas on the leg of a woman of seventy-five or eighty who for years had had varicose veins and eczema. The point of infection was a fingernail scratch in an eczematous patch on the skin. From this the erysipelatosus blush spread upward to the knee and downward to the toes, its further progress being checked by the immediate application of pure carbolic acid and a wet dressing to the point of infection, and the free use of ichthyol over the affected area of skin. The infection was so virulent, however, and the resistance of the tissues so feeble, that the skin and subcutaneous tissue covering the dorsum and inner side of the foot from the toes to the tendon of Achilles became necrotic, and in the course of time sloughed away, exposing the extensor tendons.

The crural ulcer is usually located upon the lower third of the leg, and with special frequency in the vicinity of the malleoli. Its form is commonly round or oval, it is shallow, and its margin is not undermined. If it is of recent formation, its base is usually covered by a slough of necrotic tissue. Should this slough be surrounded by a narrow margin of granulation tissue, secreting

\* Read before the Practitioners' Society of the Oranges.

pus, it is a sign that the line of demarcation has been formed and indicates that the further extension of the necrotic process has been checked. When the slough has been cast off, a healthy granulating surface will be exposed, which, under favorable circumstances, will become covered with epidermis.

Unfortunately such a favorable outcome is rare except in early traumatic cases. As a rule the line of demarcation is slow in forming, and it is difficult to determine where and when the necrotic process is going to stop. The epidermis about the margin of the ulcer proliferates, but, there being no healthy granulating surface for it to spread upon, it becomes heaped up in a horny, indurated ring. When the slough finally separates, the floor of the ulcer is seen to be smooth and glistening, and of a pale red or yellowish color. The cicatricial tissue of which it is composed has strangulated the granulations, and the result is an indolent ulcer that makes no spontaneous progress towards healing.

Such an ulcer may at any time be the point of origin of a new infectious process similar to that by which it was created. The base, unlike a healthy granulating surface, offers but feeble resistance to the attacks of infecting germs, and we may have as a result either a localized necrosis and ulceration, or a more remote destruction of tissue through a phlebitis, a lymphangitis or an erysipelas.

If, on the other hand, the formation of granulations and the separation of the slough goes on vigorously, but through the unhealthy condition of the surrounding epidermis, or merely through the great extent of the granulating area to be covered, the spread of epidermis over the granulations is disproportionately slow, we have a condition of exuberant granulations. The projecting masses of granulation tissue become pale and flabby, because the formation and contraction of connective tissue at their base is cutting off their blood supply, and they eventually become necrotic and slough off. In this case, too, the result is an indolent ulcer with an indurated margin and a floor of anaemic cicatricial tissue.

The character of the secretion of an ulcer varies with the conditions present. In the presence of a more or less acute process the secretion is usually thin, scalding and ichorous. When there is an active separation of sloughs, the discharge is apt to be free and purulent, while in the indolent stage it is scanty and serous.

The presence of ulcers, the irritation of the skin by their discharges, the accompanying eczema, the repeated attacks of phlebitis, lymphangitis and erysipelas and the formation of cicatrices, lead to pigmentation of the skin, oedema and thickening of the skin and subcutaneous tissue, and eventually to elephantiasis. An ulcer of the leg may, of course, be the starting point of a fatal septicemia or pyemia, and the malignant degeneration of the sore is not an uncommon occurrence.

The prophylaxis of ulcer of the leg is directed towards the improvement of the nutrition of the parts, and the protection of the skin from injury and infection. The means adapted to these ends may naturally be divided into general and local measures.

The general treatment consists in the relief as far as possible of all causes of venous stasis in the lower extremities. We endeavor to obtain or to perfect compensation in obstruction to the circulation due to disease of the heart, lungs, liver or kidneys. Constipation should receive proper attention. Abdominal tumors should be removed or adequately supported. Both in pregnancy and in abdominal proptosis much may be done in removing obstruction to venous return by the application of a supporting bandage, and the removal of the weight and pressure of the skirts from the waist.

Diabetes, alcoholism and chronic endarteritis require suitable regulation of diet, habits and mode of life. Locomotor ataxia, Raynaud's disease and the tropho-neuroses should receive the treatment which seems best adapted to the disease and patient.

The local prophylaxis consists in the support of the veins and the protection of the skin from injury and infection. Where it is possible, we should induce these patients to give up occupations which keep them much upon their feet, and to cultivate the habit of sitting with their legs raised. The device most generally prescribed for giving support to the veins is the elastic stocking. This I have found objectionable in several ways: it is difficult to get the stockings so well made that they give sufficient support and yet are not uncomfortable; they are usually too tight in some places and too loose in others; they are always very hot and uncomfortable to wear in hot weather; they are so expensive as to be beyond the means of many poor people; as they have to be worn for weeks and months without washing, they inevitably become foul, and a prolific source of infection; they cannot be used



when ointments or other oily substances have to be applied to the skin. But in spite of these objections, they are often the best device at hand, and are usually better than nothing. When for any reason I cannot use the elastic stocking, I sometimes try to induce my patient to wear a bandage, preferably of light flannel. This should be firmly and smoothly applied from the toes to the knee before the patient gets out of bed every morning. Many patients learn to bandage their legs very skillfully, and when such is the case, this method is on many accounts to be preferred to the elastic stocking. A knitted or crocheted stocking made of medium weight wool, without toes or heel and of a much smaller circumference than the leg, will often give sufficient support, and is for some reasons preferable to either the elastic stocking or the bandage. Another extremely valuable supporting device is Unna's zinc-gelatine dressing, the application of which I shall describe later. This not only gives excellent support to the varices, but protects the leg from injury and scratching, keeps the skin almost aseptic and very rapidly cures or ameliorates any eczema that may be present. It may be left on the leg from one to six weeks without renewal. The objections to its use are that it is a tedious and troublesome dressing to apply, and that it is not likely to be well borne during the hot weather. For cool weather I consider it the ideal prophylactic device.

The prevention of infection is a difficult matter. Our patients should be cautioned against the danger of trifling wounds or scratches, and instructed as to the importance of cleanliness. But in the presence of an eczema or a pruritus it is futile to tell a patient not to scratch, and the free use of soap and water is only too apt to excite an acute dermatitis, and so precipitate the trouble we are trying to prevent. It is precisely in these cases that Unna's dressing applied over a nearly aseptic skin does such excellent service. When it cannot be employed, we must cure or at least soothe the eczema by whatever means we have at command, and keep the skin as clean as possible without causing irritation or abrasions. The use of an emollient, after washing, or of a superfatted soap is often serviceable in these cases.

When infection seems imminent or inevitable, nothing is so likely to abort it or to limit its spread as a large wet dressing of acetate of aluminium or boric acid.

When an ulcer has actually developed—and we are rarely consulted until this is the case—we should adopt the same course of general treatment as I have just detailed in speaking of prophylaxis. The local treatment must be varied to meet the requirements of each case.

If the ulcer is a recent one with healthy granulations, it is usually sufficient to cleanse thoroughly, to apply a piece of sterile protective tissue, and to bandage the leg firmly from the toes to the knee. Under such a dressing healing will sometimes take place in a few days. Or we may give the patient an ointment which he may apply himself, spreading it on lint and applying the bandage over it. The ointment may be mildly antiseptic, as salicylic acid or ichthyol in oxide of zinc; or moderately stimulating, as balsam of Peru or the red oxide of mercury well diluted. These ointments do better if they are not washed off, when the dressing is changed, but merely wiped away with a cloth moistened in olive oil. If eczema or a tendency to eczema be present, we must carefully avoid all irritating applications. The use of powders in these cases I have almost entirely abandoned; for though they dry up an ulcer and form a firm scab very quickly, I have rarely found healing to proceed smoothly under such a scab. Pus frequently forms, there is fresh necrosis, and we have a second ulcer to cope with.

When the ulcer is foul, and sloughy, or when there is active inflammation about it, a wet dressing of acetate of aluminium, 3-6% (National Formulary), under rubber protective tissue, and changed daily, gives the best results. If there is much complicating eczema, a wet dressing of boric acid, 4% solution, does rather better. When there is much pain, a little orthoform dusted on before applying the dressing will relieve it.

Under such treatment the foulest ulcers quickly become clean, sloughs are cast off, and healthy granulations appear. When such a result has been obtained, we may follow one of three different courses: continue the wet dressings until healing occurs, as it frequently will, if the ulcer is not too large, and the granulations are sufficiently vascular; or adopt the simple dressing of rubber tissue or ointment described above, with perhaps the addition of some of the more common measures for stimulating healing; or we may apply Unna's zinc-gelatine dressing.

This dressing is made in the following way: daily wet dressings of acetate of aluminium or boric acid are used until all sloughs have come away, and the floor of the ulcer is smooth and clean. Then the skin of the foot and leg is thoroughly scrubbed with hot water and tincture of green soap, after drying, alcohol is applied freely, and the skin is again washed in a solution of bichloride, 1-2000. The next step is the application to the skin immediately surrounding the ulcer, and to all eczematous surfaces, of a layer of Lassar's paste, without salicylic acid. The ulcer is thickly covered with aristol, subnitrate of bismuth or any unirritating powder, and a gauze bandage is smoothly applied from the toes to the knee. Upon this is spread with a paint-brush a layer of the hot zinc-gelatin paint, which has the following formula:

Oxide of Zinc, 8 parts,  
Gelatin or Glue,  
Glycerine, aa., 5 parts.  
Water, 22 parts.

When first prepared, it should be kept at the boiling point in a closed vessel for half an hour, and it should always be sterilized in the same way just before using. Over the paint is put another layer of bandage, and over that a second coat of paint, continuing in the same way until from four to six layers of each have been applied. Over the last coat of paint I usually apply a muslin bandage to protect the clothing until the dressing has hardened.

It dries in from six to twelve hours, but is always more or less elastic. It should be left in place until a spot of discharge shows through just over the site of the ulcer, which will happen according to the quantity of discharge, in from four days to three weeks. The formation of granulations and the spread of epidermis goes on rapidly under this dressing, and often results in a comparatively speedy cure, even when the ulcer seems hopelessly indolent. As a method of treatment it is almost universally applicable, doing good even where there is an extensive loss of tissue to be filled with granulations and covered with epidermis. In the larger ulcers, where skin-grafting is resorted to, it is an ideal dressing to apply after the grafts have taken.

The practical limitations to the use of this treatment are the time and trouble required for its proper application, and the fact that it is not always to be relied upon in warm weather. For these reasons I have come to use it only in the more obstinate cases,

where simpler and less toilsome methods have proved ineffectual. Confinement in bed, that last resort in the treatment of varicose ulcers, has, in my practice, been almost entirely superseded by Unna's dressing.

Although, with the methods of treatment already detailed, we can rarely fail to bring an ulcer to healing, there are certain conditions which may appropriately be dealt with by other valuable measures. One of these is the strapping of an indolent ulcer with diachylon plaster. This I resort to only when the induration does not yield to Unna's dressing, or when Unna's dressing is not well borne. Another is the curettage, scarification or excision of the cicatricial floor of an indolent ulcer. These are all valuable procedures and are sometimes essential to a cure. As for skin-grafting, its importance in the treatment of extensive ulcers cannot be overstated; a vital point in using it is the desirability of employing it early, while the nutrition of the granulations is still unimpaired.

A word as to recurrences, which are so common as to be considered almost inevitable. I believe the important points in preventing them are, first, relief, as far as possible, of all obstructions to the venous return from the lower extremities; second, the continual use in the daytime of a suitable supporting device for the veins of the leg; third, the cure or relief of the eczema or pruritus; and fourth, the keeping of the skin of the leg clean, soft and free from scales. If we can induce our patients to do all in their power to secure these conditions—and this, after all, is the most difficult part of our task—recurrences, barring accidental injuries, will be of rare occurrence.

#### THE TRUTH OF IT.

A timid member from the boll weevil district handed in the following:

The Doctor sat in his velvet chair  
Counting his treasures of gold,  
His garments were rich, his luxuries rare,  
His lot with kings did well compare—  
Or that is the way it should have been  
When the Doctor was growing old.

But the truth was this: he had no gold  
And he sat on a three-legged stool,  
Cursing the bills he couldn't collect,  
He had no comforts, and in every respect  
He knew that he was a fool,  
For the Doctor was growing old.  
—*Fifth District Medical Bulletin*, San Antonio,  
Tex.



## THE PROTECTION OF THE HEALTH OF A CITY.\*

BY EDWARD MARTIN, M. D.

OF THE PHILADELPHIA BUREAU OF HEALTH.

Atlantic City has become established as the largest health resort of the world because of its intrinsic merits as a comparatively dry, readily accessible, seashore resort; made thoroughly comfortable and provided with an abundantly varied means of out-door recreation by the intelligent foresight of its business men. None the less its future prosperity and development depend largely upon its ability to insure those who come to it in the pursuit of health against contracting any of the preventable diseases.

Among these, the development of which would most certainly retard the city's growth by implanting a distrust in the minds of the community must be mentioned, first, typhoid fever. Not only is the germ of this disease known, but the ordinary methods by which it reaches the human body and by its multiplication produces the fever are clearly recognized. We know that the germ must be swallowed before the disease can develop. We know that it is usually swallowed in the drinking water, often in milk, sometimes in the food, especially uncooked vegetables which have been fertilized by night soil, and exceptionally in oysters which have been bleached and fattened in flats exposed to sewage contamination. We also know that these germs can be deposited upon food previously clean by flies the feet of which have been contaminated by the stools of a typhoid patient.

Granting these facts the means of prevention are not only sure but perfectly feasible. In regard to the water a typhoid epidemic has not yet been traced to rain water collected in closed cisterns which are kept clean, or to that drawn from deep artesian wells. Surface water can never be regarded as absolutely safe unless it has been subjected to a process of careful filtration, since contamination is always possible even though the area from which the water drains is practically uninhabited. The non-disinfected discharges of a single case of typhoid may so infect a huge reservoir as to cause an epidemic. This has been repeatedly proven particularly so by the Butler outbreak. This town, though supplied with water from a

sparsely settled mountain region, developed upwards of a thousand cases of typhoid fever, incident to the contamination coming from a single family, though it is to be particularly noted that this contamination remained innocuous till the sand filter broke down and direct pumpage of raw water was established. When it is recalled that the urine of a patient completely convalescent from typhoid may teem with the virulent bacilli for weeks or months, the difficulty in preventing contamination of surface water may be understood.

Next to the water supply as a source of typhoid epidemic ranks in order of importance milk. If the water be of assured purity the development of a number of cases of typhoid fever in the same region should always suggest an examination of the milk supply. Not bacteriologically, for the infection must have been swallowed from ten days to two weeks before the outbreak of the fever. If the milk is really at fault it is quite certain that on the farm of the producer polluting his water supply or in the family of the distributor there will be found one of more cases of typhoid fever. Milk is such an admirable culture medium that even a mild infection may be come colossal and virulent by the time it reaches the consumer. Since milk is always to be suspected it is our custom to have reported in every case of typhoid the name of the milk dealer; if two or more cases occur among his patrons his premises and family and those of the farmers who supply him are subjected to a rigid sanitary inspection. Thus we have checked at least two epidemics which threatened to assume alarming proportions.

Since the contamination of milk is so easily effected the supply of this food should be forbidden the market from premises in which there may be a case of typhoid fever and in subsequent sanitary control the long continued virulence of the urine should be borne in mind.

Vegetable contamination may be avoided by forbidding the use of night soil as a fertilizer, or if this be impracticable, by insuring the proper lime disinfection of such soil before it is used.

Oyster contamination is avoided by inspection of the beds in which oysters are fattened and rejection of those which come from questionable sources.

Fly contamination is avoided by prompt disinfection and covering of typhoid dejecta, by screening of doors and windows,

\*Read before the Atlantic County Medical Society, April 5th, 1905.

by regularly repeated destruction of such flies as may enter the house, and by screening and liming stable manure pits in the municipality since it is in these almost exclusively that flies breed.

It is quite certain that in this large community an occasional case of typhoid fever contracted elsewhere will develop. Such a case may expose the community to no danger provided the nurse protects herself from the disease by proper cleanliness, excludes flies, disinfects and covers the dejecta and cautions the patient in regard to the long continued contagious nature of his urine, giving directions for its proper disposal and the cleanliness of the hands.

Because of Atlantic City's wide fame as the Mecca for convalescents, it is inevitable that among those who come for its healing and strengthening effect will be some who have suffered from transmissible disease, such as diphtheria and scarlet fever, and that occasionally such cases will be sent before the period of contagion has completely passed. It has been found that patients suffering from diphtheria will often exhibit specific and virulent bacteria for weeks after the disease is clinically well, and our experience in the Municipal Hospital apparently shows that after the sixth week of scarlet fever when desquamation is complete, the patient is exceptionally capable of transmitting the disease. It is moreover established beyond doubt that the discharges from the ears of patients recovering from scarlet fever may carry the contagion for many months.

Any community should be protected against such contagious cases as may have been sent to it through ignorance or carelessness, or selfish desire to regain health without considering the interests of others. The accomplishment of this is by no means easy. It would seem quite impossible to subject the guests of a hotel to a medical examination before assigning them rooms, nor would this examination always give conclusive evidence as to their harmlessness in relation to others. Since the welfare of Atlantic City depends so absolutely upon its fair fame as a health resort, however, it would seem only wise either to adopt a standard in regard to the time of admission to the hotel after one of these easily transmissible diseases is apparently well, or to provide a portion of the hotel in which patients thus affected can be excluded from others.

It is certainly highly desirable that this

great city should be provided with a contagious hospital, preferably so arranged that each two bed rooms and bath room can be entirely separated from every other similar suite. Into this hospital cases of contagion which develop could be immediately transported without endangering the community or without exposing those who travel on the cars.

Moreover, it would engender confidence in the patrons of the hotels if it were distinctly understood that any case of the development of a contagious disease, the right of the proprietor of such hotel would be absolute in enforcing the immediate removal of such case to a hospital provided for its proper treatment.

As an essential part of the sanitary control of a city, such as this, there should be provision for complete and thorough disinfection of apartments occupied not only by those suffering from, or convalescent from, actively transmissible diseases, but from tuberculosis, grippe, mumps, measles and other of the infections commonly regarded as of minor importance and but slightly communicable. This disinfection should be absolute, should not be entrusted to individuals, but should be a matter for municipal control and should be carried out by men thoroughly trained in its performance. All the recent work in this direction seems to demonstrate that formaldehyde is the most potent agent for the destruction of the known pathogenic bacteria. By analogy it should therefore be most lethal for those of which we have no knowledge, such, for instance, as the germs of scarlet fever, smallpox and mumps. Also formaldehyde is the least destructive disinfecting agent of fabrics, clothing and furniture. In its method of application either vapor or spray may be used. Vapor implies a cubic disinfection, spray a surface disinfection. As it has been abundantly shown that infection comes not so much from the air as from the surfaces upon which dust has settled, surface disinfection seems the more desirable and this, from a theoretical standpoint, is still more likely to be the case since if adequate, it also provides for air disinfection. After many experiments by Dr. Stewart, of the Philadelphia Bureau of Health, a spray has finally been devised by which the destruction of the bacillus pyocyanus and subtilis, two of the most difficult bacteria to kill, reaches 100 per cent. The method consists in using a 40 volume solution of formaldehyde, diluted with an equal part of water. The quantity employed is



3 pints of the mixture for each 1000 cubic feet of air space in an apartment. The room is thoroughly sealed with gummed paper and the entire surface, including walls, floor and ceiling, is rapidly sprayed after which the room is closed for at least 8 hours. Thereafter it is given a thorough housecleaning. Experiments with vaporizers have given inferior results. The vapor is effective in direct proportion to the rapidity with which formaldehyde gas, mingled with the proper quantity of steam, is thrown into the room. Even those most rapid in their action have failed to give an average of 100 per cent. of disinfections. None the less, in expensively furnished apartments and particularly in those in which the infection has not been an intensive one, the vapor, because of its less destructive action, may be used.

Aside from the advantage to the health of the permanent resident of Atlantic City and of the transient visitor incident to an efficient sanitary corps, it would be of distinct commercial advantage to advertise the following facts, basing them on the works of such a corps, and reinforcing them by authoritative declarations from the proper officials.

First, The protection of the entire community, including all employees, against smallpox by vaccination.

Second, The absolute purity of the drinking water employed.

Third, The purity of the milk based on (a) inspection of the farms from which it is derived; (b) inspection of the distributing stations; (c) frequently repeated physical and bacteriological examination of the product as it is dispensed.

Fourth, The wholesomeness of the oysters and clams based on the sanitary inspection of all the sources of supply.

Fifth, The completeness and adequacy of the drainage system, based on the statement of a competent sanitary engineer.

Sixth, The provisions made for protecting the visiting public against the spread of contagious diseases.

Seventh, The system of frequent disinfection and cleaning of apartments occupied by the public and the invariable complete disinfection of such apartments as may have been occupied by those convalescent from grippe, tuberculosis or other of the milder transmissible disorders.

Eighth, The provision for the treatment of actively transmissible affections the public being properly safeguarded.

Ninth, The wholesomeness of the green vegetable supply, based on sanitary inspection of the sources of this supply and on the assurance that night soil is not used as a fertilizer.

It is the custom of most watering places to ignore the existence of disease of any kind and that public attention should be directed to even the possibility of the presence of preventible or communicable affections is certainly novel and, at first glance, somewhat shocking, since there is a popular belief to the effect that the large majority of people give little thought to those matters. There has, however, never been a time when the public took a more intelligent and general interest in sanitary matters than the present and few factors would contribute more largely to the growth and prosperity of Atlantic City than the sense of security given to its patrons by the well advertised work of an efficient sanitary corps.

#### REPORT OF THE COMMITTEE ON MOSQUITOES AND MALARIA.\*

Mr. President and Gentlemen:—At our meeting of last year a Committee on Mosquitoes and Malaria was appointed consisting of one member from each of the district societies. Soon after its appointment organization was affected by the selection of Dr. S. E. Armstrong of the Bergen County Society as chairman and Dr. Alexander Marcy, of the Burlington County Society, as secretary. Three meetings have been held since organization, one at New Brunswick, November 4, 1903, the second one at Lakewood, October 24, 1903, and the third at Trenton, May 17, 1904. There were three representatives at the first meeting, four at the second and four at the third meeting. This small attendance would seem to indicate that the committee, on account of its numbers, is unwieldy and would therefore advise that it be discontinued and that a new one be appointed consisting of five members, the same to continue from year to year. This plan would do away with the unwieldiness of the larger committee, and its work in this important field could be continuous and therefore much more effectual.

At the Lakewood meeting of the committee, held as above stated, State Entomologist, Professor John B. Smith, of New Brunswick, was elected an associate member and the following preamble and resolutions were adopted:

*Whereas*, Investigation has demonstrated that many of the diseases of man and animals are due to minute parasitic organisms which, in the course of their development within the body of their host, set up abnormal processes and lesions of the most dangerous character.

It is further known that insects of various kinds are important agents in the transmission of some of these diseases; directly when they carry the germs of contagion from one individual to another, or indirectly, when the organism causing

\*Read to the Medical Society of New Jersey at its 138th Annual Session.

disease passes through one of its stages in the insect body. Elephantiasis, filariasis, yellow and malarial fevers in men and some diseases of birds and animals are due to organisms which pass through one stage of their development in certain kinds of mosquitoes, and the evidence thus far at hand tends to show that without the intervention of such mosquitoes these diseases could not exist at all.

The mosquitoes, against which such powers of disease transmission have been proven, are dangerous pests, whose destruction should be secured if possible; and this possibility has been demonstrated by experiments in many parts of the world.

In consideration of the foregoing, be it

*Resolved*, That we heartily commend the action of the Legislature of the State of New Jersey in providing for the investigation of the mosquito problem as it exists in this State.

*Resolved* further, That we believe that the work already done by Professor John B. Smith, under direction of the State Experiment Station, tends to prove the possibility of controlling, if not quite exterminating the pest in our State; and that in our opinion, the work so well begun should be continued until every portion of the State has been surveyed for mosquito breeding areas likely to prove dangerous to any considerable territory.

*Resolved* further, That it is the duty of the medical profession to assist in the education of the public on these points, and that the possibility as well as the importance of destroying mosquitoes and their breeding places should be emphasized whenever occasion serves.

S. E. ARMSTRONG,

*Chairman.*

ALEXANDER MARCY, JR.,

*Secretary.*

W. Blair Stewart, B. Archer Waddington, Isaac Barber, John P. Hecht, Benj. W. Ferguson, Andrew F. McBride, B. D. Evans, D. C. English, Leon T. Salmon, John Taylor, J. J. Baumann, Henry B. Diverty, Randolph Marshall, Charles B. Teeter, John C. Applegate, Wm. H. Davis, B. Van D. Hedges.

Your committee would urge the members of the New Jersey State Medical Society to take a very active interest in mosquito extermination, to urge upon health boards the propriety of enforcing the law as it now stands with regard to the destruction of mosquito breeding areas, and to instruct their patrons in the proper methods for destroying breeding places about their premises. We would also urge upon you the fact that this is no idle talk; a matter of no small moment, as was evidenced by a meeting held in New York last December, at which time addresses were delivered by eminent business and professional men of that and other cities.

Provision for Conference of State and Local Health Officers.—The legislature of this state has just passed a law providing for an annual conference of state and local officers, sanitary inspectors and delegates from local boards of health "for the purpose of securing uniform and efficient methods of procedure throughout the state for the promotion of the public health and the restriction of the spread of preventable diseases." The conference is to be called at such time and place as the State Board of Health shall decide, and the expenses of the delegates to the conference are provided for.

## MEDICAL ORGANIZATION.

### The Coming State Meetings.

J. N. McCORMACK, M. D.

National Organizer of the American Medical Association, Bowling Green, Ky.

It has been my privilege within the last four years—and I esteem it to have been a great one—to attend the meetings and to make a careful study of the proceedings and the methods of nearly all of the state societies in the United States. The meetings in some states were so interesting and profitable and in others so barren of practical results as to make the causes for this disparity an interesting subject for investigation, especially as the available material and personnel for the program usually seemed to be about equally abundant.

The success of these meetings is so important at the present stage of the organization work, and is so dependent on the forethought and the efficiency of president, secretary, committee on scientific work, committee of arrangements, councilors and other officers, that it seems proper for me, in the light of an experience which has not before been possible to any other person, to offer some suggestions for the consideration of those charged with such important duties during the transition from the old to the new plan of organization. As practically all but three of these societies are now operating under the uniform plan, my suggestions will be directed more especially to methods adapted to work under it.

The secretary, councilors and committee on scientific work should have begun the preparation for the next annual program from the adjournment of the last meeting. If they have kept in close touch with their county societies, through the abundant agencies provided in the by-laws, and have made these the active bodies and feeders they were intended to be, and have stimulated members to present their best work there, in the way of postgraduate and original investigations, as well as set papers and discussions, and have followed these up during the year, it will be largely a question of selection to get the best of these for their programs, revised and revamped as a result of the criticism to which they were subjected in the home society. These should be grouped into symposia, as far as practicable, and those who are to take part in the discussions should be prepared for crisp, brief and well-digested talks, to be followed by free general discussion, strictly limited as to time and kept well in hand by the presiding officer and the "master of debate," selected from the committee on scientific work. This assistant to the secretary should be on the alert, constantly but unobtrusively, to see that those who are to take part in the discussions are in place and ready for the duties assigned them. Promising younger members who have been especially active in their county societies should be encouraged by being given places on the program for both papers and set discussions, the older members being relied on more for the general discussions. A sharp lookout should be kept for such young men at all times in the proceedings of both the county and state meetings. No one should ever be put on the program who failed from any cause except illness to fill any part assigned to him at the last meeting, and this rule should be given prominence on the



printed program. Two ushers should be on hand constantly to see that members and visitors are seated, and especial attention should be given to such older members as are in the habit of grouping themselves together in the rear of the hall and disturbing the proceedings by loud conversation and other unseemly practices.

With such a program and arrangements, and freed from the time-consuming parliamentary and business discussions, and the duty of electing the officers, the general meeting can in future devote its entire time to scientific work. Under a model program, of which I have seen several in operation, the invocation, address of welcome and response should be followed by the first symposium within twenty minutes after the meeting has been called to order, and papers and discussions should follow from hour to hour and from day to day until the program has been completed without an intervening motion, unless it be some motion directly connected with the scientific work. A motion on any other subject should, of course, go to the house of delegates at once and without debate.

No exhibit should ever be permitted about the hall or its approaches, and the contracts should always require that they be closed during the hours of meeting. Nothing unethical should even be considered for the exhibit rooms, and probably nothing should be admitted which is not advertised in the state journal, where one is maintained.

The duties of the house of delegates are so well defined in the constitution and by-laws as to require little elaboration. Its program should be entirely distinct from that of the General Meeting, following it in the same leaflet, for the information and guidance of all members. Its first meeting should be held in the afternoon of the day preceding that fixed for the General Meeting. By holding an afternoon and evening session thus in advance its business may usually be so shaped as to enable delegates to attend nearly all of the scientific meetings. Its hall may be much smaller, but should have convenient rooms for committees and should be sufficiently remote from the hall assigned to the General Meeting to prevent interruption, should it be necessary, for any reason, for both bodies to be in session at the same time. The importance of these details should be impressed on the committee of arrangements long in advance, as much of the comfort and success of the session will depend on the attention given to them.

At least one session should be devoted to the discussion of the status and enforcement of the medical and health laws of the state. The state board of health and the state board of medical examiners, or delegates from these bodies, should be invited to be present and take part in these discussions, with the view of securing the harmony and concert of action so essential in procuring and enforcing proper legislation. Through the delegates, detailed reports should be heard as to the condition and needs of the profession in each county, supplemented by suggestions and recommendations from the councilor of the district. To do all these things, in addition to the manifold other duties imposed by the by-laws, it may sometimes be necessary for the house to sit on the second or third day while the General Meeting is in session, but this should be avoided if possible, even if it is necessary to remain in session for a day after the larger meeting has adjourned. As this body will grow in importance and occupy more and more time as the methods for the enforcement

of medical and health laws are perfected, no one should accept the office of delegate who will not devote himself to the work set for him and remain each year until it is completed.

Meetings conducted on the plans here outlined are pleasant and successful almost beyond the conception of those who are only familiar with the methods of the old societies. As soon as the possibilities within reach under them are fully realized they will attract the attention and command the respect of all those interested in scientific medicine in every state, and give satisfaction to all except the few politicians and senior wranglers who could talk endlessly on parliamentary or business questions under the old régime, without effort or preparation.—*Journal American Medical Association.*

## NORMAL LABOR.\*

By J. M. JENNINGS, M. D., TYRONE, KY.

My first case of labor must have been normal, but before I got through with it I thought it was abnormal, and subnormal, and supernatural, and everything else.

I was sitting in my office one evening waiting for something unexpected to happen and "reading up" on yellow fever. I heard they had a few cases at Havana and I didn't know how soon it might strike Bryantsville and I thought it was well enough to be prepared. Father and I had an office together. Father was postmaster, and on one side of the door we had the sign: "Post Office. Real Estate Agent, County Surveyor." On the other "Dr. Jennings, Physician, Chronic Diseases a Specialty. Teeth Pulled While You Wait." When I was not busy I would help with the mail, and if I was gone father could pull teeth, give a dose of calomel, and sometimes make unnecessary digital examinations. I scolded him once in a while for being so "frisky," but father was an inventive genius and could formulate theories that I had never thought about, and there is no telling how much money we would have made if I had not had my first case in obstetrics.

The shadows had deepened, the chickens had gone to roost, when I looked out in the distance and saw a little humpbacked fellow on a sorry filly with a rope-reined bridle, coming like "the devil was after him," and to my surprise and consternation he stopped in front of my office and yelled out between breaths:

"Doctor, I want you to go down and see my old woman."

"What's the matter?" I said.

"I believe she's going to have a baby."

Well, that was a deadener, and thoughts of Hades, Gehenna, and such places floated before me, but I went out into the lot and caught up an old bay mare that I generally kept for my nightmare, and putting my little pocket case in one pocket, and a pair of tooth forceps in the other, we struck out like wildfire, with the little man in the lead. The man in the moon gave us a significant wink as we rushed down a dark alley and out into the open country, and finally wound up with a flourish at a little log cabin with one window and a stack chimney daubed with mud, which reminded me of the primitive ages. After some preliminary observations I entered and found the lady

\*Read before the Kentucky Midland Medical Society at Lawrenceburg, Ky., October 13, 1904.

of the house actively engaged in trying to propagate her species, assisted by a negro woman. I asked the negro how she was getting along. She said "All right."

"Well," I said, "go ahead with your rat-killing, and if you need any help, call on me," and I went up to the stove to warm. I never was as chilly in my life, and this was about the middle of August. After I had warmed about two hours, the negro woman said the patient wasn't doing well, "she was a lingerin'."

"Well," I said, "I expect I had better make an examination and see what's the matter." The little fellow jumped up and said, "I don't want you to." "Thunder and lightning!" I said, "if you don't want me to wait on your wife what did you send for me for?" The woman said, "For God's sake, doctor, come on and do what you can, for I believe I am going to die;" and I thought from the way she was taking on that she couldn't live half an hour. As I stood irresolute Shakespeare's lines came into my mind: "To do or not to do: that's the question," and I wondered whether it would be better to go home and leave the woman in the care of the darkey, or act like a man, attend to the case right and make \$10.00. As these thoughts passed before me I decided on the latter, so I greased my index finger with groundhog oil, in the absence of lard, and proceeded to make a careful and critical examination. I found an opening leading somewhere, the labia majora seemed to be parallel with each other, the clitoris was in its proper position, and the mons veneris smiling and happy beneath its velvety cushion, and that was about all I could find out.

By-the-way, gentlemen, I had never had very much clinical instruction, either at the University of Louisville or the University of Iowa. Old Johnnie Crow—peace to his ashes!—had a cotton manikin, headless and cut off at the knees, and a cotton baby that he could manipulate with considerable dexterity; but those of you who have had any experience know that there is a great deal of difference between a manikin and a woman—the feeling is not the same.

Prof. Schrader, of the University of Iowa, had an old bald-headed, bowlegged woman that he would bring out every three or four days. Sometimes she would have endometritis, sometimes puerperal septicemia, and the next time prolapsus of the rectum. The graduating class didn't seem to want to examine her, and I made my examinations at a private institution on one of the back streets; but the lady that I went to see didn't seem to be in labor during any of my visits, and the result was that my clinical experience was curtailed, so to speak. But to return to my text. Like old Columbus in exploring new regions I again made an examination of ten or fifteen minutes' duration and finally came to the conclusion that if the child wasn't born at all it wouldn't be anybody's fault, as we had everything requisite for a first class delivery.

In the meantime the father of the offspring, who had never become reconciled to existing conditions, got mad and left the house. His wife kept calling, "Oh, Darling! Come in and see me." He poked his head in at the window and said, "I don't want to see ye. I don't want to see ye." I said, "I will bring him;" so I got up and wiped my hands on the negro woman's apron, took a chew of tobacco and went out to reason with him. I told him his wife was liable to die at any time, and if she died he would be sorry he didn't stay with her

to the last, and if she got well they could fight it out afterwards. "I don't want to see her; I don't want to see her." I said, "I'll be darned if you don't." So I grabbed him by the back of the neck and the seat of the pants, and shoved him into the house with considerable force.

And then, while seriously considering the advisability of making another examination, the woman gave a soul-piercing scream; the little fellow thought she was about gone, he repented himself and fell prostrate on her neck. This proved to be too much for the bed; the frail structure collapsed and they all came down in a pile together, and it was hard to tell who came out first, the white man or the darkey.

Well, the negro woman and I, with the help of the patient, finally "brought order out of chaos," and then I concluded to take a recess. I leaned against the wall in a rickety chair, the bed bugs grinning at me on either side, meditating on the beauties of nature and the disadvantages of mind over matter, and being considerably wearied, I fell fast asleep and dreamed. In my dreams my mind reverted to my schoolboy days. I could see Prof. Weaver standing before us, drilling us in mental arithmetic. The problem he gave us was: "If a baby and a half is born in two minutes and a half, how many babies are born in an hour and a half?" As quick as a wink I answered, "Six and one-fourth." I always was good in mental arithmetic. In my dreams I could see my old friend, Dr Yocom, and myself, as we lay on our cotton mattresses in a cheap boarding house, gazing at the stars through the holes in the roof, our minds filled with lofty ambitions, dreaming of the happy time when our names should be encircled by a halo of glory, with such men as Jenner, Flint, Gross, and other saw-bones. Suddenly I heard a squall like a new birth. I jumped up and saw the baby in the negro woman's lap already dressed.—*Kentucky Medical Journal.*

## BOOK REVIEWS.

THE INTERNATIONAL MEDICAL ANNUAL. A YEAR BOOK OF TREATMENT AND PRACTITIONERS' INDEX. 23d year. By thirty-five contributors. 8vo., cloth, 644 pages. New York, E. B. Treat & Company, 1905. Price \$3.00.

This volume has a larger page than its predecessors, a decided advantage in the convenience of handling the book, especially as its thickness is not increased. The binding, typography and illustrations are excellent. A review of this work in extenso is not practicable in the space at our command. Nor is this necessary, because its merits are known of all men. It has been published annually for nearly a quarter of a century and has steadily grown in popular favor.

The arrangement of the topics is the same as heretofore, being of encyclopedic form. The first 100 pages are devoted to an alphabetical list of new remedies and of the new matter which has appeared during the past year in regard to the old ones. The remainder of the book is mostly taken up with the new treatment of new and old diseases, including some very interesting matter on tropical diseases, handsomely illustrated. The list of medical books published during 1904, mostly in America, and the short essay on sanitary science which conclude the book are valuable features.

We gladly add our word of commendation to the flattering notices which the *Annual* has so generally received from the medical press throughout the country and pronounce it a vade mecum



for the busy man, and by reason of the references to the periodical literature a valuable help to the student.

**THE BLUES (SPLANCHNIC NEURASTHENIA) CAUSE AND CURE**, by ALBERT ABRAMS, A. M., M. D., (Heidelberg), F. R. M. S., Consulting Physician Denver National Hospital for Consumptives, &c. Illustrated, 12mo., cloth, 240 pp. E. B. Treat & Co., New York, 1904. Price \$1.50.

This manual, like all of Dr. Abrams' writings, is characterized by clearness of expression and singular lucidity of style. He assumes that a large and increasing percentage of cases of nervous depression, muscular weakness, and general inability to think clearly or act vigorously is due to engorgement of the splanchnic veins. To this stasis of the abdominal circulation, with its attendant low state of the intellectual powers, he gives the name of "the blues," and proceeds to lay down simple rules for its treatment. The book affords much food for thought and is so simply and plainly written that the laity can read it with understanding and profit, while to the physician it points out a means of relieving a class of cases that have often proved intractable, and have, in despair, frequently sought the aid of the advertising charlatan. Incidentally the good results which the osteopaths have unquestionably achieved in such cases, are explained by Dr. Abrams' theory of their pathogenesis and treatment. The old medical axiom that infra-diaphragmatic maladies are characterized by mental depression, while intrathoracic ailments are marked by cheerfulness is at least measurably true. And this little book affords a good explanation of many hitherto ill-understood symptoms which have been vaguely attributed to torpidity of the liver, intestinal indigestion and so on.

The author's rules of hygiene and correct habits of life are extremely valuable and are expressed in a terse and convincing manner. The axiomatic and pertinent quotations from many sources show wide erudition and quick mental grasp.

It is altogether an admirable monograph, and so interestingly written that we have laid it down with regret because there was no more of it.

**AMERICAN ALKALOMETRY.** Vol. IV. A Digest of Clinical Teaching. 1902-03 inclusive. Editors, W. C. ABBOTT AND W. F. WAUGH. 8vo., cloth. The Clinic Publishing Co., Chicago.

This attractive looking volume is a collection of clinical instruction, clinical reports and personal letters extolling the exhibition of medicines in alkaloidal form. Many telling blows are administered to the practice of administering crude drugs and shotgun prescriptions in disease. The treatment of special symptoms by small, oft-repeated doses of single remedies is advocated, while bathing and other methods of physiologic therapeutics are not lost sight of.

This is one of a number of works published by the energetic Clinic Publishing Company, of Chicago, and serves, like its congeners, to present the tenets of alkalometry in a clear and readable form.

The Princeton college men who are going West to search for fossils could find them here if they only tried. And then, too, the Jersey fossils are alive.—*Newark Evening News.*

Mrs. Florence Maybrick writes of the underground dungeon in the New Jersey State Prison at Trenton as barbarous.

## CORRESPONDENCE.

*Dr. R. C. Newton,*  
*Montclair, N. J.*

MY DEAR DOCTOR:—The April number of the *Journal of the Medical Society of New Jersey* has just been received. For an infant, it certainly appears to be quite lusty.

Wishing you continued success, I am  
Very truly yours,  
GEORGE H. SIMMONS.

Camden, N. J., April 10, 1905.

MY DEAR DR. NEWTON:—There is one thing certain; we cannot get along without the *Journal*. It has amply demonstrated its right to live.

Very truly yours,  
E. L. B. GODFREY.

## RAMSEY COUNTY MEDICAL SOCIETY.

The annual meeting of the Ramsey County Medical Society, says the editor of the *St. Paul Medical Journal*, showed the most satisfactory and prosperous condition of its affairs that has existed in its entire history. The library has grown in size and usefulness, and now has upward of 4,500 volumes on its shelves, and receives regularly and keeps on file 150 periodicals. During 1904, 1,500 readers used the library. The catgut industry is growing rapidly, and its profits and those of the *Journal* were larger than in any previous year, and from these two sources there was added a very substantial sum of money to the building fund of the society, which is assuming very respectable proportions. The members of the Ramsey County Medical Society may well be proud of the work they are doing, and each member of the society should make an effort to do something to help our money-makers during the year. Keep an eye open for new subscribers to the journal; when the agents of the pharmaceutical and instrument houses come around ask them if their firms advertise with us, and when you can consistently do so favor those who do advertise with us. Talk catgut to your friends from out of town, and if they have not used our catgut see that they do so; the laboratory will gladly send sample envelopes whenever asked to do so. Remember that every member of the society is a part owner in our property, and that the more money we make the sooner we will be able to accomplish what we are all working for, the acquisition of a building and a home of our own.—*Journal American Medical Association.*

The weekly issue of the *Journal of the American Medical Association* has reached thirty-six thousand weekly. Its size has so increased that it has been necessary to bind it in magazine form and put on a cover. All this has so crowded the Association building that it is impossible to find space for another person to work. Hence the need of a new building for which plans have already been drawn. Fortunately the Association owns several adjacent lots and can build in conformity with the present structure.—*Journal Michigan State Medical Society.*

Unless some other cause is evident don't fail to examine for signs of tabes when an adult complains of pains about the waist, in the back or in the lower extremities.

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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MAY, 1905.

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### THE STATE SOCIETY MEETING.

To be Held at the Hollywood Hotel,  
Long Branch.

The coming meeting bids fair to be the most successful in the society's history. We take pleasure in printing the provisional program of the scientific exercises in this issue, from which it can be seen that an excellent scientific menu has already been provided. Additions will be made to it and probably another symposium will be arranged.

We congratulate the committee on the good work they have done. The scientific program is the backbone of every medical society meeting. Around it everything else centers. If it be poor or poorly presented nothing can save the meeting. Entertainments, dinners and excursions may palliate the failure which they can not prevent.

We are aware that some doctors go to their State Society meetings as an outing, and seek diversion rather than instruction. But these are a distinct minority. The majority demand a good scientific program, and go to the meetings keen for knowledge and for practical help in their daily work. These helps our committee have provided for us, and we accordingly thank them for much hard work done in our behalf.

The Committee of Arrangements also make a provisional report. The sessions will be held at the Hollywood Hotel, Long Branch, beginning at 11 a. m., Tuesday, June 20th, and closing on Thursday, June 22d.

Suitable entertainments for the members and their wives and families will be provided.

The committee intend to spare no effort to make things go smoothly and pleasantly. Every member is urged to give his family the benefit of a pleasant outing at Long

Branch, which, as our readers know, is regaining its former prestige as a summer resort. The Hollywood Hotel has been completely renovated and is one of the best hostelrys on our coast. The usual rate of \$5.00 per day has been reduced by a special arrangement with Mr. Cotentin the proprietor to \$3.50 a day, American plan, to members of the State Society, and the accommodations will be ample. Further particulars will be furnished in our June issue.

### A LUSTY INFANT.

Our good friend Dr. Simmons still has nice things to say about the JOURNAL. He seems to think that it is a promising offspring considering its tender age.

Standing in the position of chief nurse to this suckling, our bosom swells with pride when kindly gentlemen go out of their way to praise it, and to predict for it a future of healthy growth and usefulness.

It has not been a patent food baby, nor has it subsisted exclusively on modified milk, nor yet upon a mixture of milk and gruel. It has had "a taste of table food" for the beginning and has thriven so far upon what the neighbors have sent in. And it is mainly to their unvarying kindness and many helpful suggestions that our charge owes its present promising condition.

We hope that the father of the child, the Medical Society of New Jersey, will conclude that the young one is worth raising.

### CLINICAL EXAMINATION OF THE URINE.

Cabot has written a paper under the above caption (*Journal American Medical Association*, March 18 and March 25, 1905.) which contains some statements which are of the greatest clinical interest. He begins with a quotation from Councilman "The chemical and microscopic examination of the urine, important as it is, does not give any sure information as to the character of the (renal) lesions." Cabot has studied all the cases of acute and chronic nephritis that have come to autopsy in the Massachusetts General Hospital since 1893, and reports his results in the paper under consideration. There were 219 cases in all of kidney disease demonstrated post mortem and ten in which, although there were marked urinary abnor-



malities during life, no renal lesions were found post mortem. Of the 219 cases, 93 were acute renal degeneration which Cabot declines to classify as nephritis. Although they were what others would have called acute nephritis of a degenerative or desquamative type.

If we omit these 93 cases, in which the correct diagnosis was made clinically in all but three, we have 126 cases in 70 of which a diagnosis of nephritis was made with more or less exactness and 56 in which the renal lesion was unrecognized during life. In other words in spite of careful urinary analysis, and Cabot tells us that the graduates of the Harvard Medical School know how to examine urine "even when they know little else," 44.4-10 per cent. of the cases of nephritis that came to autopsy during a period of about eleven years in the Massachusetts General Hospital were not diagnosed.

After a careful examination of these results Cabot concludes that nearly all of these cases were unrecognizable during life by any diagnostic means at our command.

He then considers in detail the value of the estimation of the amount of urea present in the urine, as well as that of methylene blue, the phloridzin and the cryoscopic tests. These he esteems of small practical value and concludes his most instructive paper as follows:

1. There are many cases of acute glomerular nephritis which can not be recognized by any of the methods of examination known to us.

2. In some cases of sub-acute and chronic glomerular nephritis, our diagnostic resources are likewise at fault, and in the great majority of cases here studied the condition of the urine, taken in connection with other features of the clinical picture, enabled us to anticipate the autopsy findings.

3. Of the chronic interstitial cases about one-third were correctly diagnosed in life.

4. Among the conditions mistaken for nephritis, owing to the implicit reliance in the urinary findings, senile and arteriosclerotic degenerations were frequently classed as chronic nephritis, while in passive congestion or acute degeneration of the kidney the urine occasionally simulates that of acute nephritis, and in cases where no renal lesions were found at autopsy the

urine is occasionally highly albuminous and full of casts.

5. In ordinary examinations of the urine common errors are; (a) the attempt to estimate urea without accurate knowledge of the patient's metabolism, (b) the statement that renal cells are present when all we know is that we have seen small mononuclear cells, perhaps belonging to the renal tubules, perhaps not.

6. Cryoscopy and other attempts to test the renal permeability are not as yet capable of supplementing in clinical work the older methods of examination in the diagnosis of nephritis. The vast majority of estimations of urinary solids, including urea, are in my opinion a waste of time, since they are not, and in most cases can not be made, part of a general metabolism experiment.

The attempt to estimate the anatomic condition of the kidney by the measurements of albumin and the search for casts is fallacious in the extreme.

The most reliable data about the urine are those most simply and quickly obtained, the twenty-four hour quantity, the specific gravity and the color.

#### CREASOTAL IN PNEUMONIA.

Andrew H. Smith contributes an article with the above heading to the *American Therapist*, January 15, 1905. He quotes from the Presbyterian Hospital report of 1904 some figures showing the difference in mortality between pneumonia cases treated with creasotal and those treated without it. In 600 cases in that institution during six years the mortality in uncomplicated cases was 22.8 per cent.; in complicated cases almost 36 per cent. and in cases occurring with other diseases 47 per cent.

Creasotal was given in 10 minim doses every two hours throughout the disease in 101 cases in addition to the usual symptomatic treatment. Of the 101 cases 71 were uncomplicated and 30 were complicated. Amongst the former there were seven deaths and amongst the latter nine. Instead of sixteen and twelve respectively, which would have been the mortality according to the ratio established in the 600 cases.

Smith also quotes Dr. Baldwin of Rome, Italy, who has treated 18 consecutive cases without a death, using creasotal very freely, as much as 30 or 40 minims every three hours. Smith himself has

not ordered over 15 minims every two hours, but would not hesitate to do so if that dose did not reduce the temperature in the course of twenty-four hours.

He adds "I do not know of a single instance in which harmful results have been reported. Smoky urine often appears, but is of no moment and may be disregarded."

He insists upon the early employment of the drug, as he believes that its efficacy is impaired after the lung cells have been occluded by the exudates of the disease and the bacteria present in them are less accessible to the germicidal action of the creasotal circulating in the blood.

He deplors the belief, which is quite prevalent, that there is no specific treatment for acute pneumonia and states that if he were attacked by the disease he should place his case in the hands of a physician who believes in the use of creasotal and will use it with a liberal hand.

Incidentally creasotal inhibits the formation of gas in the stomach and intestines, and so prevents the danger and discomfort of abdominal distention.

### THE PHYSICAL CONDITION OF CANCER SUBJECTS.

Fraenkel (*Wiener Klinische Wochenschrift*) calls attention to the rarity of cancer in subjects with progressive paralysis. In 1744 autopsies upon cases of this disease he found cancer much less frequently than in an equal number of cases dead from any other cause.

Arterio-sclerosis, with the consecutive cardiac changes, is constantly present in progressive paralysis and tabes, so that arterio-sclerosis may be regarded as an early symptom of these diseases.

The infrequency of cancer in such cases of defective circulation as compared with its frequency in the well nourished seems to suggest that it thrives best where there is an abundant blood supply. The cachexia, Frankel asserts, is altogether secondary in cancer cases. He thinks that the initial fine health of the victims of cancer may be one reason that this lesion is not discovered earlier.

In his autopsies in cases of progressive paralysis he found innumerable factors which might have predisposed to cancer; syphilis, trauma, inflammations, round ulcer, etc.

The absence of cancer throughout the

series can be explained only by assuming that the early deterioration of the circulatory apparatus entailed changes in the tissues more in the nature of atrophy, with little reacting power.

Another reason, he remarks, why cancer effects persons with a circulatory apparatus in good condition is that others do not survive to the cancer age. Cancer occurs most often at the points peculiarly exposed to mechanical irritation, and to irregular embryonal development, and these are places where the blood vessels are especially numerous and the nutritional processes unusually active. Repair of mechanical injury at these points has a tendency to be excessive. For the same reasons x-ray burns are liable to become cancerous.

### HYSTERICAL JOURNALISM.

In legal controversies when the attorney for one side finds the case going against him one recourse has ever been the abuse of the attorney on the other side. In other words resort to vituperation is frequently tantamount to an acknowledgement of defeat. It may serve to raise a dust and so obscure the real point at issue. The unthinking multitude may be and frequently are so impressed by the alleged enormities of the accuser that they lose sight of the truth or falsity of the accusation.

In this manner our esteemed contemporary the *New York Medical Journal* and *Philadelphia Medical Journal* answers the charges of the *Journal of the American Medical Association*, which are to the effect that the former journal has fallen from its high estate and through its proprietor is opposing the movement in which all the better medical publications are ostensibly united, against the proprietary medicine manufacturers who persist in keeping the formulae of their products a secret and who feel very much hurt by the steps which the American Medical Association is taking to force them to publish the formulae of their products as part of every advertisement.

The editorial utterance of the *New York Journal* reminds us of the story of the old deacon, who was caught in the act of abstracting pork from his neighbor's barrel, and finding escape impossible, boldly stood his ground, saying "The wicked flee when no man pursueth, but the righteous are bold as a lion."



It is no answer to the remarks of the editor of the *Journal of the American Medical Association* to call him hysterical. If hysteria has been manifested so far in this case it seems to us that the editor of the *New York Journal* has been guilty of it rather than the editor of the *Journal of the American Medical Association*.

The friends of the former journal may well grieve at the position its editor has chosen to assume and wish that he had adopted some other means of setting his journal right with the profession.

### THE STATE SOCIETIES.

We print in another column Dr. McCormack's report upon the working of the State societies throughout the country. And a highly gratifying document it is. The great improvement which this gifted observer notes in many of the newly organized societies means many things. It means that the medical society of cross roads style is fast passing into oblivion. It means that the medical politician, while he may still have his uses, can no longer crowd out and suppress the scientific worker. It means that society business shall be better conducted by men especially fitted for this work and that vexatious and interminable discussions upon parliamentary law and constitutional questions shall not supplant the scientific work of the Society. It means progress along the whole line toward a united and progressive medical profession. It means encouragement and help to the younger men and an organized effort to discover ability and lead it in the right direction.

This movement is an outcome of the general advance in medical thought and education, and is part of the advance which is taking place all over the world in enlightenment and a higher civilization.

We hope that everyone of our readers will lay to heart all that Dr. McCormack has said. We have been especially impressed with what he has to say about the difference in the scientific work of various societies. He says, "The meetings in some States were so interesting and profitable and in others so barren of practical results as to make the causes for this disparity an interesting subject for investigation, especially as the available material and personnel for the program usually seemed to be about equally abundant." (Italics ours.)

This statement entirely accords with our opinion, and we are glad to have the endorsement of so high an authority. Our State Society has the men to do as good work as almost any other State Society. And when we are as well organized and as much in earnest as some of the others we shall do as good work.

This journal was started to weld together the Society, to improve its social and scientific status and to bring forward the younger men and interest them in the work.

We believe that good has already been accomplished and we see much promise for the future.

Let us not be weary in well doing for much remains to be done. Meantime let us not forget Professor Osler's "master word in medicine."—WORK.

### THE LEGISLATURE OF 1905.

This wise body seems to have adjourned without having done much harm to the medical interests of the State. And they did some good. After mixing up the bill to license osteopaths so that it probably pleased no one, the Senate passed it, but it appears to have been crowded out of consideration by the House, owing to the final rush.

We believe that the free antitoxin bill and the bill to protect physicians on the witness stand both failed of passage, which is much to be regretted.

The law to appoint a Commissioner of Charities and Correction seems to be an excellent measure. While our Legislative Committee probably feel chagrined that the Senate passed the osteopathic bill in any shape, after the careful presentation of our side of the case, still this presentation quite possibly delayed the Senate's action and so prevented the bill getting to the House on time.

### EDITORIAL CHANGES.

Dr. Joseph MacDonald, Jr., has severed his connection with the *International Journal of Surgery* and become managing Editor of the *American Journal of Surgery*.

The latter journal will hereafter be published monthly in New York, and bids fair to fill an important rôle as a low priced surgical journal, especially adapted to the wants of the general practitioner. The April number, which is before us, contains Dr. MacDonald's salutatory and

Dr. Lanphear's valedictory. The latter has successfully conducted the paper for a number of years until it has grown so large that he must relinquish its management to give his time to his private practice.

Dr. Brickner is the editor-in-chief. No doubt under its new management the *American Journal of Surgery* will greatly extend its usefulness and more than maintain the high place which it already holds amongst medical publications.

#### ANOTHER MOVE FORWARD.

The Essex County Medical Society voted almost unanimously at its annual meeting to hold meetings each alternate month throughout the year except in mid-summer, and appointed a Scientific Committee to carry out the program. The plan proposed is as follows: A scientific meeting on the first Tuesday in October, December and February of each year. The annual business meeting with election of officers and new members, as heretofore, on the first Tuesday in April, and a Clinical meeting on the first Tuesday in June.

#### A LONG AND HONORABLE RECORD.

Dr. Archibald Mercer after twenty-six years service as secretary of the Essex County Medical Society has at last felt obliged to lay this burden down. He was unanimously elected vice president although he vigorously protested against longer holding office in the Society claiming that he deserves a rest from official labors.

The Society, however, insisted on his acceptance and, as not one voice was raised in objection, the treasurer of the Society cast the ballot in Dr. Mercer's favor. This method of electing a man to the coveted office of vice president has, so far as we know, only once before been adopted in the Society's history.

Neither societies nor republics are always ungrateful, and we gladly commend this unique tribute to a worthy officer, a tribute as richly deserved as it was unexpected.

While Dr. Mercer has been secretary he has seen the Society nearly quintuple its membership, until now it numbers nearly 300 physicians.

We believe that his successor will show equal devotion and energy in the secre-

tary's office, and trust that his labors may be as fully rewarded as his predecessor's.

#### AN EXCEPTIONAL OPPORTUNITY.

There are a few names lacking to make up the party, limited to 125, which Dr. Wiggin is getting together for the trip to the Portland meeting of the American Medical Association next July.

We have already referred to this trip and printed an itinerary of it in our February issue. We believed then that the plan would succeed and that enough physicians would subscribe to make up the party, and to take advantage of the alluring program offered, and our belief was apparently well founded. The cost of the trip will be, as we have previously announced, \$325, although the time has been lengthened to 40 days instead of 33. This outlay will cover everything except the hotel bills in Portland and San Francisco. Any member of the party can secure good accommodations at both these points, at the rate of \$4 per day, by notifying Dr. Wiggin.

By taking advantage of this opportunity to attend the American Medical Association, and at the same time to enjoy the finest scenery on the continent, one can save \$200, not to mention traveling with the utmost comfort and in the most congenial company.

#### AN EXCELLENT SUGGESTION.

We would like to call the attention of the committee of arrangements for the coming meeting of the State Society to a suggestion made in Dr. McCormack's admirable report, already alluded to: which is, that manufacturers, publishers and others should not be allowed space to exhibit their instruments, remedies, books, etc. at the State Society meeting, unless these have been previously advertised in the JOURNAL.

And we would ask all of our members to give the preference in every case to manufacturers and publishers who advertise with us.

#### BIND YOUR JOURNALS.

We hope that all of our readers have preserved their JOURNALS for binding. The Baker Printing Company will do this binding at a very reasonable figure. In case some of your copies are missing, we



shall be glad to do all in our power to replace them. Volume one will end with the June issue. As the publication committee deem it best to start the next volume July 1st, so that hereafter the volumes will begin in July and end with the June issue. There will be only ten numbers in volume one. Hereafter each volume will contain twelve numbers.

Particulars as to the binding prices, etc. will be given in the JOURNAL for June.

#### OBITUARY.

**J. Wadsworth Terry M. D.**, of Englewood, died last month. He graduated at the Medical Department of Yale University in 1862. He was a member of the Bergen County Medical Society, the American Medical Association and the Society for the Relief of Widows and Orphans of Medical Men of New Jersey.

**Edwin Tomlinson, M. D.** Jefferson Medical College, Philadelphia, 1872, some-time coroner of Camden County, N. J., and postmaster of Gloucester City, died at his home in that city, March 29, after a lingering illness, aged 65.

**Peter Nelson Jacobus, M. D.**, died last March and was buried in Washington, N. J. He had been senior deacon in the Baptist Church at Washington for seventeen years. He graduated at the University of Vermont in 1885, and was a member of the Sussex County Medical Society.

**Amos H. Brundage, M. D.**, formerly a practicing physician of Newark, died in Brooklyn, March 19, aged 77 years. He had practiced in Brooklyn about twenty years and was graduated at the Medical Department of the University of New York in 1855.

**Howard Servis, M. D.**, died in New York City, March 24, of apoplexy. He was 75 years old and graduated at the University of Pennsylvania in 1858. In 1876 he began practice in Hampton Junction, N. J., and carried it on successfully for 26 years. He was a free mason and a member of the Hunterdon County Medical Society. On his mother's side he was a descendent of Robert Hart, a signer of the Declaration of Independence. He leaves a widow and a son and daughter.

**Frank H. Rice, M. D.**, died at his home in Passaic, on March 27. The local paper says: "In the death of Dr. Frank H. Rice, of Passaic, this county loses one of its oldest and best-known medical practitioners. Dr. Rice was seventy-five years old. He went to the General Hospital here yesterday afternoon to perform an operation. He fainted at his work and was removed to his home, where he passed away about 9 o'clock last night." Dr. Rice leaves a son and a daughter.

**N. Newlin Stokes, M. D.**, died April 16th at Moorestown, aged seventy-two years. He was a member of the Stokes family, which has been prominent in Burlington County for more than a century. Dr. Stokes was graduated from the Jefferson Medical College, Philadelphia, in 1854. He took an active inter-

est in the affairs of Moorestown. For many years he was a member of the board of managers of the State Asylum for the Insane at Trenton, and was also an active member of the Burlington County Medical Society. He was president of the Moorestown Water Company and a director of the Moorestown National Bank and Burlington County Safe Deposit and Trust Company.

#### NEWS FROM THE COUNTY SOCIETIES.

The annual meeting of the Mercer County Medical Society was held on April 11th. The following officers were elected for the ensuing year: President, Martin W. Reddan; vice president, D. B. Ackley; secretary, David F. Weeks; treasurer, Ira M. Sheppard; reporter, James Maguire; delegates to the State Society, Charles J. Craythorn, George R. Moore and Martin W. Reddan.

All of the members of this Society, with two or three exceptions, have signed an agreement not to do professional work for lodges or societies at less than the regular professional fees.

The regular meeting of the Atlantic County Medical Society was held in the auditorium of the Public Library, April 7th. To this meeting the homeopaths, city officials and hotel men were invited. Dr. Edward Martin of the Philadelphia Bureau of Health, read a paper on "The Protection of the Health of a City." The meeting was very well attended in spite of the stormy night. We take pleasure in stating that among those present were Drs. E. J. Ill, George E. Reading, L. M. Halsey, James Mecray and Alexander McAlister. After the meeting the Society adjourned to the Hotel Strand for a social gathering, and the enjoyment of a liberal collation.

At the previous regular meeting, March 8th, which was held at the Hotel Abbey, a paper was presented by Dr. Henry J. Off of Philadelphia, on "Some Manifestations of Influenza in the Upper Air Passages." Dr. W. Blair Stewart read a paper on "Influenza," Dr. E. H. Harvey reported a case of "Cardia Dextra." Dr. William Pollard reported a case of "Infective Uveitis." The various subjects were freely discussed by the members. A resolution was presented at this meeting by the Legislative Committee that no member shall contract with any lodge, organization or company to do medical or surgical work for less than the regular rate per call.

It is gratifying to note that the general attendance of the meetings is increasing, and more interest is manifested in reporting cases, and in the discussions.

The members of the Burlington County Medical Society held an interesting meeting at Beverly in April. Dr. J. Howard Pugh presided. Dr. James Tyson, of Philadelphia, delivered an address on "General Medicine." Dr. Charles P. Noble, of Philadelphia and Dr. B. Brick, of Marlton, N. J., were present and took part in the proceedings. A general discussion followed.

The Essex County Medical Society has elected the following officers for the ensuing year: President, William S. Disbrow; vice-president, Archi-

bald Mercer; treasurer, Charles D. Bennett, secretary, Ralph H. Hunt; reporter, Frank W. Pinneo; Members of Council for two years, T. Y. Sutphen and Charles Young; for three years, William J. Chandler and Charles F. Underwood; Committee on Scientific Work, the president and secretary, *ex-officio*, and Edward J. Ill, Francis J. E. Tetreault and Richard C. Newton. A motion to appropriate \$50.00 for the purchase of medical journals and books of reference was lost.

The following officers were elected at the Annual Meeting of the Somerset County Society in April: President, Aaron L. Stilwell; vice-president, J. Hervey Buchanan; secretary, W. H. Long, Jr.; treasurer, Thomas H. Flynn; reporter, Arthur Hall Dundon; censor, John P. Hecht; delegate to the State Society, Thomas H. Flynn.

Dr. Frank W. Murray, of New York, read a paper on cancer of the breast.

### PROVISIONAL REPORT OF COMMITTEE ON SCIENTIFIC WORK

#### Presidential Address:

Dr. Walter B. Johnson, Paterson, "The Proof of the Existence of Amblyopia Exanopsia in Strabismus."

#### Address by the Second Vice President:

Dr. Alexander Marcy, Jr., Riverton, "The Surgical Treatment of Bright's Disease from the View-point of the General Practitioner."

#### Address by the Third Vice President:

Dr. Edward J. Ill, Newark, "The Trained Nurse and the Doctor—Their Natural Relations and Responsibilities."

**Oration, Surgery.**—Dr. F. D. Gray, Jersey City. Surgical Diagnosis, Synopsis, Surgical diagnosis of to-day and twenty years ago. Diagnostic skill as essential to operative ability; a fact not always recognized. Preoperative exactness of diagnosis to be cultivated in all cases. Great value of diagnostic incision or puncture, in hopelessly obscure conditions. Temptation to invoke their aid too frequently. Causes contributing to "snap" or careless diagnosis. Extreme importance of early diagnosis in a certain well defined class of cases. Importance to internists of securing the opinion of a surgeon, in cases often considered purely medical.

**Oration, Medicine.**—Dr. R. C. Newton, Montclair.

Modern Neurology, Synopsis. 1. A review of its history and present status. 2. The doctrine of the Neuron and its practical applications. 3. What the general practitioner should know of the subject.

#### Tuberculosis Symposium.

Dr. A. S. Knopf, New York City, "Clinical Diagnosis of Early Tuberculosis."

Dr. C. J. Kipp, Newark, "What our State is doing for its Consumptive Poor."

Dr. T. W. Harvey, Orange, "Prevention of Tuberculosis."

Dr. I. H. Hance, Lakewood, "Treatment: Sanatoria and Home."

Dr. E. Staehlin, Newark—"Ectopic Gestation." Synopsis, Causation, Clinical history of cases and symptomatology.

Discussion by Dr. Florian Krug, New York

City and Dr. P. A. Harris, Paterson.

(This paper to be in connection with Dr. Wrightson's paper.)

Dr. James T. Wrightson, Newark—"Uraemic Surprises."

Synopsis: 1. Manifold and Insidious. 2d. Clinical Report. 3rd. Pathological Summary. Discussion by Dr. Ellis W. Hedges, Plainfield, and Dr. Henry Mitchell, Asbury Park.

Dr. Linn Emerson, Orange, "Treatment of—Convergent Squint in Young Children."

Discussion by Dr. N. L. Wilson, Elizabeth, and Dr. T. R. Chambers, Jersey City.

Dr. G. H. Balleray, Paterson, "Prophylaxis in Gynecology."

Discussion by Dr. E. J. Ill, Newark, and Dr. F. D. Gray, Jersey City.

Dr. George E. Reading, Woodbury, "Therapeutic Agents of Animal Origin."

Discussion by Dr. L. M. Halsey, Williamstown, and Dr. B. A. Waddington, Salem.

Dr. Alexander McAlister, Camden, "Essentials of Diuretic Treatment."

Discussed by Dr. Joel W. Fithian, Camden, and Dr. H. H. Sherk, Camden.

Synopsis: Conditions in remedy and patient which decrease or favor diuresis, and how to eliminate the former by treatment.

Dr. Elihu B. Silvers, Rahway, "Cannabis Indica and its Practical Uses."

Dr. August Adrian Strasser, Arlington, "Chorea—A Clinical Study of."

Synopsis: Clinical manifestations of chorea; Differentiation; Interrelation of chorea, endocarditis and rheumatism; Bacterial etiology and conclusions.

Dr. Henry Chavanne, Salem, "Properties of Medical Plants."

Discussion by Dr. Joseph Tomlinson, Bridgeton, and Dr. J. S. Baer, Camden.

Synopsis: Primitive perception of plants' special properties, when given character as curative agents. Progress in centuries. Medical theories. Superstition and folklore. Similarity of animals and plants, essential principles. Nutritive and chemical phases. Two typical specimens.

Dr. Floy McEwen, Newark, "Weaning."

Synopsis: Indications for; best time for; should be gradual. Age for normal weaning; strength of first food mixture; progressive formulae; cereal additions.

Dr. Richard P. Francis, Montclair, "Intestinal Adhesions."

Dr. Talbot R. Chambers, Jersey City, "Somnoforme." Synopsis: Chemical composition, action, value for short operations, shortens initial stage of ether or chloroform anesthesia, bibliography, conclusions.

*In order that each member of the Society may receive his program of the meeting promptly, it is urged upon the secretaries of the County Societies to send the revised membership list to Dr. Chandler at the earliest possible moment.*

Dr. Dr. George N. Waite of Newark, entertained a large company of professional friends at his Surgical Sanitarium on April 15. Professor George Emerson Brewer of New York, read a paper on gall bladder surgery, which was followed by a discussion.

A preliminary meeting to arrange for the organization of the Health Officers' Association of Essex County was held in Newark April 5th. Another meeting was called for April 19th.



### STATE MEDICAL EXAMINATIONS.

The regular examination of the State Board of Medical Examiners will be held in Trenton, Tuesday and Wednesday, June 20 and 21. Applications for this examination must be filed with the Secretary before June 10.

Applicants who do not possess a high school diploma or its equivalent should arrange with the State Superintendent of Public Instruction, Trenton, N. J., to take, if necessary, the County Examination for Teachers on the first Friday and Saturday in May, or the State Examination for Teachers on the second Thursday, Friday and Saturday in June.

Office of Publication, 251 Market St., Newark, N. J. Communications relating to the business of the paper, advertisements and subscriptions may also be addressed to WILLIAM J. CHANDLER, M. D., South Orange, N. J.

Address all papers on medical subjects, all news items, and all books for review to RICHARD C. NEWTON, M. D., 42 Church Street, Montclair, N. J.

The JOURNAL will be glad to print original papers from any source, preferably from members of the State Society, provided that they shall be of sufficient merit and shall be contributed to this paper exclusively.

Anonymous communications will not be published, but the name of the author of a communication will be kept secret if the editor is requested to do so.

The Medical Society of New Jersey does not hold itself responsible for the sentiments expressed by the author of papers.

It will be satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—The satisfaction is great to the editor and printer. We can not promise to return unused manuscript.

Authors may obtain reprints of their papers at cost provided a request for them be written on the manuscript.

Matter received after the 20th of any month can not appear in the next issue of the JOURNAL.

*Most of the county societies hold their annual meetings in April or May and now is the time to urge all reputable medical men in this State to join their respective county societies.*

*About one year ago cards were sent out for the purpose of obtaining a personal record of every practicing physician in New Jersey—name, age, birthplace, school of practice, etc., etc. These cards, after being filled in, were to be sent to the Recording Secretary of the Medical Society of New Jersey and by him kept on file. Duplicate cards were to be kept by each county secretary of the practitioners in his county. Most of the county secretaries have made returns, but from some nothing has as yet been heard. The latter are reminded of this undischarged duty and urged to collect and send in these cards, properly filled out, at an early date.*

*Blanks similar to the cards have been printed on sheets of paper and can be supplied on application to the Secretary, Wm. J. Chandler, South Orange, N. J. It is very desirable to have a complete record of all men, regular and irregular, practicing medicine in this State. The time is not far distant when illegal practitioners will be prosecuted and punished to the full extent of the law.*

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## SOME NOTES AND OBSERVATIONS ON THE ETIOLOGY AND PATHOLOGY OF LOBAR PNEUMONIA.\*

By Herbert S. Carter, A. M., M. D.,  
New York.

The widespread interest which has been aroused of late in pneumonia and its possible prevention, has taken definite shape throughout the country in the appointing of special pneumonia commissions in the principal cities, particularly of the East and Middle West, to study the modes of transmission and the life history of the pneumococcus, and especially to devise means for mitigating the disease, which since 1900 (when it caused 10% of all deaths in the United States) has headed the mortality list in this country.

There are, apparently, certain factors as yet unsolved which must account for this increase and whether to lay it to one of the various contributing causes and, say, for example, that the increased virulence is not real but only apparent and that the true cause must be sought in the lessened resistance of the high-gear individual of the hour, or whether the increase follows in line with what we know about specific organisms of other sorts and that they go through a cycle of increased virulence—stationary period and fall—is one of the interesting phases of the subject which awaits a solution.

\*A part of a symposium on pneumonia before the Orange Mountain Medical Society.

One view of the increase taken by Le Roy (1) is that one must admit that a great number of the fatal cases reported to the Health Department have an underlying pulmonary tuberculosis and he believes that if this fact could always be ascertained, when present, tuberculosis in its various manifestations, would still be found to be the chief cause of all deaths in this climate.

*Etiology.* While certain meteorological factors do seem to play a greater or less role in the production of this scourge, (2) "the major influence exerted by seasons, winds, humidity, etc., is probably not direct, e. g., by lowering bodily resistance due to low temperature, high barometric pressure, direction and velocity of winds, but indirect, namely, by bringing about that effective element in the causation and concentration in virulence of the specific poison, in consequence of closed doors and lack of sun and ventilation." As Welch says of small pox, that if houses had no doors or windows, it would be as frequently met with in summer as it is in winter, in other words its greater evidence in cold weather is dependent on lack of fresh air and sunshine rather than upon the season. This view of pneumonia's prevalence in cold weather is also shared by Anders in his statistics and it seems equally applicable to the other specific, infectious diseases. In line with this, Wells (3) in reporting 101 cases of lobar

(1) Transactions Medical Society, Tenn., LXXI., 102. 1904.

(2) Anders, American Medicine viii, 204. 1904.



pneumonia from the Newport Naval Hospital found that the season of the year had very little effect on the number of cases admitted, but the relation of the number of cases to over-crowding of the barracks was quite marked. Then too, we must remember that the pneumococcus may remain active for 2 to 4 months in the dried sputum, as shown by Grawitz (4).

In this, as with every other infectious disease, the great factors which must be considered from an etiological point of view, are

1st, the susceptibility of the individual.  
2nd, the specific exciting cause.

As to what constitutes the specific conditions for the first, we are at a loss to explain why so many robust and apparently healthy persons are seized, either with or without some definite contributing cause, such as exposure, while so many of the weaker members of society escape; this too, when the pneumococcus is so universally distributed and when there are so many opportunities for direct contact infection, such as those to which nurses and medical men are exposed.

It is, of course, certain that there must be factors, not yet fully recognized, that have much to do with the development of the disease in some and not in other persons, undoubtedly concerned with the great question of immunity, upon the threshold of which we have but just entered. How else can we explain the innocuous presence of the diplococcus of Fraenkel in so many of our upper air passages; as for example out of 40 laboratory assistants at the College of Physicians and Surgeons, in New York, the specific diplococcus of Fraenkel was isolated in 39 while the 40th gave a culture of Friedlander's pneumo-bacillus, and this is not at all an unusual percentage, as different observers report positive findings in the upper air passages in from 20 to 100% of normal persons.

In regard to the second factor in causation, it is not my purpose to burden you with a lengthy bacteriological discussion of the various possible organisms which may be at fault. Suffice it to say that probably 90-95% of all cases of lobar pneumonia are caused by the pneumococcus of Fraenkel, so that while pneumonia is infectious,

(3) Report of the Surgeon General, U. S. Navy, Washington, 228; 1905.

(4) Baumgarten Wien Klinische Wochenschrift, 1904; XVII, 966.

though not clinically specific, and the pneumococcus is the most frequent cause, a number of other organisms may produce a pathology practically identical. The diplococcus of Friedlander being probably next in frequency, since these two are of the same family, it is not surprising that the body reacts similarly to infection by them.

As a matter of fact, any micro-organism capable of producing irritation sufficiently intense, will, if it gains a foothold in the pulmonary structure produce a pneumonia of the lobar type—e. g., Klebs Loeffler—*B. typhosus*—*coli communis*—*staphylococcus pyogenes*, anthrax, influenza and pest. The tubercle bacillus, without a mixed infection, is probably unable to produce a straightforward pneumonia.

Among the most interesting advances in the bacteriology of this disease has been the experimental agglutination of pure cultures of pneumococcus by the blood serum of patients suffering from pneumonia, which occurs usually on the second day of the disease, increasing in intensity until the crisis. This would be a most welcome aid at times in the diagnosis of obscure cases were it not for the fact that in the present state of our knowledge it is difficult to grow pure cultures of pneumococci on artificial media and also the fact that some of the most severe cases fail to give the reaction at all. The method of obtaining this is similar to the so-called Gross-Widal test in typhoid, which is being used so much at present, where the suspected serum is mixed in certain known strengths with a sterile culture of pneumococci in bouillon. A cloudy precipitate develops in case of a positive reaction, while otherwise the bouillon remains clear. This agglutinating power rapidly declines and disappears during convalescence, which probably accounts for the absence of immunity following the disease.

This test can be used particularly to differentiate at times between a bacteraemia due to the pneumococcus and that due to streptococcus or the diplococcus intracellularis, which, morphologically, are at times so similar. The streptococcus in particular, when in short chains, so resembles the pneumococcus that the most minute staining methods must be used to distinguish between them.

So far as blood cultures are concerned, the results are most irregular, varying ac-

according to the reports of the different investigators. Rosenau, for instance, reports 77 positive out of 83 cases and says that a positive result may be obtained with greatest certainty on the fourth or fifth days of the disease, although it may be found any time after twelve hours from the onset. Many others, however, have not been so successful, although it seems certain that a severe infection is probably always accompanied by a bacteraemia.

*Pathology.* When we turn to the pathology of the disease we gain most of our data (aside from the well known gross lesions of the various stages) from pneumonia experimentally produced upon animals, and to anyone particularly interested in this side of the subject I would refer to Wadsworth's most interesting paper published in the *American Journal of the Medical Sciences*, 1904 (CXXVII) as time will not permit me to go into it fully. One conclusion which he reaches, however, is of interest, as it is so entirely in accord with our clinical experience—namely, that there is no relation necessarily between the extent of the lesion and the gravity of the infection, which he finds to be even more true in experimental pneumonia than in that seen at the bedside. Also that after immunization extremely virulent cultures may be injected without giving rise to bacteraemic infection. So far as the actual pulmonary lesions are concerned he finds, as a result of his experimentation, that the incitants may be carried to the lung in one of the following ways with practically invariable results:

1st, by the lymph channels giving rise to interstitial pneumonitis.

2nd, by the blood vessels giving a secondary metastatic process.

3rd, by the air passages giving us a true exudative pneumonia of the lobar or lobular type.

In considering the lesions due to a pneumococcus infection we must take into account the fact that in the course of a severe bacteraemia practically any portion of the body may be involved locally. Some of these lesions are of much more clinical importance than others, e. g., pneumococcus, endocarditis, arthritis and pleuritis. This last happens especially frequently, accompanying or following the pulmonary involvement, but when found a practically positive conclusion may be reached as to the etiology by careful morphological examination of the fluid, which will show it to be a true exudate by its

high specific gravity, fibrin and albumin content, while a positive and high polymorphonuclear leucocyte excess in the cellular elements proclaims it to be almost certainly of pneumococcal origin, although if it is actual pus, cultural methods alone could detect it finally. This, however, is an important matter, as the prognosis and subsequent treatment are much simpler than in case the fluid is shown to be of tubercular origin.

Perhaps one of the most interesting facts obtained by a look through the year's literature on this subject is a series of 275 pneumonia autopsy findings reported from the Philadelphia Hospital which possibly helps to explain to a great extent why the disease is so fatal after middle life—namely, that 90.9% of these cases showed distinct cardio-vascular changes, endocarditis, atheroma, etc., while 90.5% showed renal lesions, distributed as follows:

1st, Chronic interstitial nephritis. . . . .52%

2nd, Chronic parenchymatous nephritis . . . . .18%

3rd, Acute nephritis . . . . .13%

In way of summing up in a few words this division of the subject it might be said that pneumonia is caused for the most part:

1st. By the diplococcus of Fraenkel, which is almost universally distributed and which may remain active and virulent for a long time in the dried sputum.

2nd. By the individual susceptibility of the patient, which is an uncertain quantity.

3rd. By the fact that in our overheated and underventilated winter residences, offices, cars, boats, etc., the best opportunity is offered the specifically inciting diplococcus to remain active and multiply.

4th. That the anatomical variety of pneumonia depends upon the mode of entrance of the pneumococcus into the lung; in lobar pneumonia this being undoubtedly by inhalation.

5th. That the associated lesions of the vascular system and kidneys, so often present after middle life, are possibly largely to blame for the unfavorable termination of the disease in the aged.

The medical officer of the public schools of Schoneberg, a suburb of Berlin, reports that of 967 school children examined, over one-half drink one to two glasses of beer daily, and 30.9 per cent. of them use more or less spirits.

The latter were reported by their teachers to be especially lazy, absent-minded and mendacious.



## THE SYMPTOMS AND DIAGNOSIS OF ACUTE LOBAR PNEU- MONIA.\*

By Nathaniel Bowditch Potter, M. D.,  
New York City.

Unfortunately for the benefit of diagnosis, no one has discovered any sign or symptom which is absolutely pathognomonic of pneumonia. In hospital practice, however, we may say that a careful bacteriological examination of the sputum when present, or, when this is absent, a painstaking blood culture will often times clear up the diagnosis of puzzling cases. Further, the efforts of Fraenkel have been fruitful in classifying pneumonias much more correctly than before. I would recommend to the consideration of those of you who are familiar with German, the study of his recent monograph upon diseases of the lungs which appeared in September, 1903. Thus far I have not heard of any English translation. In the chapters of this work devoted to pneumonia, he has proved that many of the typical cases of pneumonia, formerly classified among the mixed infections, are really due to the pneumococcus.

The typical onset of pneumonia occurs with a chill, a stabbing pain in the side, a sudden rise in the temperature, an acceleration of the breathing to 30 to 40 times a minute, a short distressing cough (often accompanied by an expiratory grunt) and an expectoration of thick, tenacious, gelatinous, rusty sputum. This symptom complex is so absolutely typical of acute lobar pneumonia that even a layman makes the diagnosis correctly. Many times, however, as you are well aware, the infection does not begin in this typical way. In children, pneumonia may begin with a convulsion and we are then in doubt as to whether the child is about to present the symptoms of a meningitis, or of one of the acute exanthemata; in another child, the attack is ushered in with a paroxysm of vomiting and a sharp rise of fever. There again, we are confronted with the possibility of scarlet fever or of meningitis. If in addition to the attack of vomiting the pain in the side is situated below the costal margin, and there is also an accompanying spasm of the recti muscles, a surgeon is often called to decide whether the case shall be operated upon or not. Rarely, especially in the young, a pneumonia is ushered in

gradually with indefinite prodromata like typhoid fever.

The most distinctive single symptom and the safest upon which to base a positive diagnosis, is in my opinion, the expectoration of a gelatinous, sticky, rusty or yellowish, tored sputum. When we confront an individual stricken with an acute febrile attack, who has coughed up one or several masses of such sputum, the differential diagnosis is limited to four conditions: Pneumonia, pulmonary infarction, oedema or tuberculosis.

Unfortunately the sputum is apt to be absent just in those cases of pneumonia in which the diagnosis is most difficult, that is in the pneumonia of an upper lobe, of delirium tremens and in the pneumonia complicating some other infectious disease. Now there are many reasons why the sputum may be absent. Babies and children almost invariably swallow it, so do very weak and very old patients. Very sick patients sometimes lack the power to cough it up; in other cases, it is so tenacious that the expulsive power is unable to free it. The amount is generally rather small, apt to be less than two ounces in twenty-four hours, but it may be in considerable excess of that. Osler quotes the amount as five to twelve ounces in twenty-four hours. In regard to its time of appearance, Grisolle noted in 131 cases that it occurred within forty-eight hours, in more than half of the cases. As to its duration, it is generally present until the crisis and often after. Pneumonic sputum is tenacious, tough and glary or rather translucent. There is so great a variation in its color that I have made less mistakes when I based my diagnosis upon the viscid character of the sputum rather than upon the color. All shades from a lemon yellow to a deep blackish red are sometimes noted and even grass green. If it exhibits a prune juice color, it might suggest heart failure. If green, we are always suspicious either of gangrene or of abscess of the lung, or sometimes of acute pulmonary tuberculosis. If rather frothy or if covered with a frothy exterior, it suggests the occurrence of pulmonary oedema. When bright red or black red blood is expectorated, we are in doubt as to whether it comes from pneumonia or from a pulmonary infarction. As you have already been told by Dr. Carter, the cause of the disease, the pneumococcus, is found plentifully distributed in the sputum.

*Physical signs.* Pulmonary infarction, pulmonary tuberculosis, pulmonary oedema

\*A part of the Symposium on Pneumonia before the Orange Mountain Medical Society, March 17, 1905.

and the effusion of pleurisy, whether serous or purulent may produce almost identical physical signs with those of lobar pneumonia. In pneumonia, however, we expect at the onset of the disease to note a slight dullness, or sometimes a slight tympanic percussion tone over the infiltrated area; at other times, a little tympanic character to the note can be detected just above the infiltrated area. The fremitus soon becomes intensified, unless the bronchi are plugged, unless the patient's voice is too feeble to excite any fremitus, or unless the co-existence of a pleurisy interrupts the transmission of the voice.

The crepitant rale is no longer considered pathognomonic of pneumonia. It is sometimes noted in tuberculosis, often in infarction, not uncommonly in pulmonary oedema, sometimes, just above the effusion, in pleurisy, and finally not uncommonly in the axillae of healthy people, and at the bases of the lungs in people who have been confined in bed for some days. A typical crepitant rale occurring in showers at the very end of inspiration, over a slightly dull area, is, however, most suggestive of the early stage of pneumonia.

The first modification of the breathing murmur which is noted is a diminution or enfeeblement. This nearly always precedes the appearance of bronchial breathing. Later on bronchovesicular or pure bronchial breathing is heard. Conner in an analysis of a large number of cases at the Hudson Street Hospital, all of them observed by himself, found that in 79 per cent. of those admitted early in the disease, the first change in the respiratory murmur was an enfeeblement. In the first stage, he found the most suggestive physical signs were: (1.) A circumscribed area of feeble or indistinct breathing. This was plainest while the patient was in a sitting posture, so that the other side could be accurately compared. (2.) A circumscribed impairment of resonance either with or without a slight tympanic alteration in the percussion tone. (3.) The occurrence of crepitant rales. (4.) A slight increase in the intensity and clearness of the vocal resonance.

During the second stage a plain bronchial expiration. The date of its appearance was quite variable; the average was about the fourth day. During the third stage a gradual disappearance of the bronchial breathing occurred, in only 24 per cent., however, before defervescence.

From a careful study of the physical signs, he is inclined to regard so-called central pneumonia as actually lobar with imperfectly developed consolidation and not a small area of consolidation limited to the centre of the lung and working out later. He mentions two sources of error in the appreciation of the physical signs: (1.) The simulation of bronchial breathing when the patient is breathing through his mouth. (2.) The mistake the examiner is apt to make when contrasting the percussion note of the patient's right and left back while the latter is lying upon his side. In this position the lower side furnishes a deeper, more resonant percussion note than the upper and is less resistant to the examining finger, so that the upper side might suggest a beginning consolidation, although perfectly normal.

If the onset and the physical signs have not permitted a positive diagnosis of lobar pneumonia, such a diagnosis may be greatly strengthened by the occurrence of herpes, of cyanosis and by the reasonably constant relation between the pulse, respiration and temperature. It is generally speaking unsafe to diagnose acute lobar pneumonia when the respiration is below 30 times in a minute. Again the pulse rate is almost invariably above 110 beats. An accompanying icterus generally suggests a lobar pneumonia.

*Differential diagnosis.* Although I have often been much puzzled in differentiating pneumonia from typhoid fever, from uraemia, from delirium tremens and from several other diseases, time will not allow me to more than briefly discuss the differential diagnosis between pneumonia and the following four conditions.

*Pneumonia vs. pleurisy with effusion.* Since the physical signs are sometimes identical, we must frequently be puzzled and only succeed in discriminating between the two diseases by employing an exploratory puncture. The following scheme has, however often assisted me in arriving at a correct conclusion.

#### PNEUMONIA

Onset. With a chill and sharp rise of temperature. Dullness apt to be more distinctly lobar, less regular. It is sometimes less pronounced towards the base and near the spine. Upon percussion less resistance to the finger. Fremitus increased or, if not, an increase may be brought out by coughing.

#### PLEURISY

Without chill moderate rise of temperature. The upper line of dullness often exhibits an S shaped curve, does not correspond to a lobar involvement. Most intense at base and quite as intense towards the spine. If a left sided affection, Traube's sign is obliterated. More resistance. Generally diminished or absent.



Bronchial breathing over the dullest area.

Crepitant rales diffused over the dulled area and persistent.

Organs are but slightly displaced.

Sputum characteristic.

Fever constant, high, ending often by crisis.

Marked leucocytosis generally.

#### PNEUMONIA

Onset. With a chill and high fever.

Sputum characteristic.

Leucocytosis.

Chlorides diminished in the urine.

Lower lobes more apt to be involved.

Initial chill. Constant fever.

Bronchial breathing at the upper border of the dullness, distant.

Crepitant rales if present are localized and often transitory.

Generally a marked displacement of organs, heart or liver.

Absent or catarrhal.

Fever irregular, not very high, never ending by crisis.

Slight leucocytosis unless the effusion is purulent.

#### PULMONARY TUBERCULOSIS.

Gradual. Suggestive history.

Catarrhal containing tubercle bacilli.

Slight if any.

Upper lobes more apt to be involved.

Apt to have chills, sweats and irregular fever.

#### *Pneumonia vs. Infarction.*

Since the sputum and the physical signs in pulmonary infarction may be identical with those in pneumonia, it is not always possible to make a differential diagnosis between the two without a very careful attention to the general clinical picture. A pulmonary infarction should never be diagnosed unless distinct etiology can be demonstrated, either an embolus from a thrombosis of the veins of the legs, following a gynecological operation, following the puerperum, following a surgical operation from the veins of the prostate, from cutaneous burns, from an embolus following a fracture or from a thrombus in the right heart of myocarditis or broken compensation. In regard to the sputum, pure blood or very dark red blood is more suggestive of an infarction than of a pneumonia, so is a pronounced haemoptysis. The expectoration of infarction does not appear until eight hours to two or three days after the onset which is apt to be marked with distinct chill and a severe pain over the area involved. Fever is never high in pulmonary infarction unless it is of a septic nature. Bronchial breathing is rarely pronounced. The favorite location for infarction is at the bases of the lower lobes and over the middle lobe on the right side.

Since a *pulmonary oedema* will oftentimes exhibit dullness, crepitant rales and sometimes indistinct or even bronchial breathing, it may be difficult to differentiate it from pneumonia. The bilateral involvement in the former and the other signs of failing compensation, the admixture of air in the sputum will generally enable a differentiation to be made.

#### *The Frequency of Lobar Pneumonia in Pulmonary Tuberculosis.*

Lobar pneumonia is not a common dis-

ease in pulmonary tuberculosis and rather rare in florid phthisis or advanced phthisis. Fraenkel quotes that in 12,430 cases of medical diseases there were 3,250 cases of tuberculosis and 760 cases of lobar pneumonia, 15 (2%) of the latter occurred in the 3,250 tuberculosis cases or 0.46% of the tuberculosis cases were complicated by a lobar pneumonia.

A point which seems to be settled by the authorities and which is borne out in statistics quoted by Fraenkel and others, is that a patient who has convalesced from lobar pneumonia is no more liable to an infection with the tubercle bacillus than any other individual. If tuberculosis follows lobar pneumonia there was undoubtedly an old tubercular focus in such a patient.

*Analysis of 20 cases of acute lobar pneumonia autopsied at the New York City Hospital in 1904.* These cases selected from 35 cases of pneumonia which came to autopsy during the last year include all about which there was sufficient information to draw any conclusions.

Sex. Male 65 per cent. Female 35 per cent.

Age. Below 30, 20 per cent.; 30-40, 20 per cent.; 40-50, 20 per cent.; 50-60, 20 per cent.; above 60, 20 per cent.

Cough noted in 60 per cent.

Chill noted in 50 per cent.

Pain noted in 65 per cent.

Pleurisy noted in 70 per cent. In two of the cases, upon the opposite side from the pain.

Pericarditis was present in 20 per cent. One of the cases of pericarditis was hemorrhagic.

Chronic endocarditis in 20 per cent. All the cases exhibited a chronic nephritis, and in 40 per cent of them, either an acute nephritis, an acute exacerbation or an acute congestion of the kidneys.

Number of lobes involved: All 5 lobes 5 per cent.; 4 lobes, 10 per cent.; 3 lobes, 10 per cent.; 2 lobes, 20 per cent.; 1 lobe, 55 per cent.

Leucocytosis was present in 15 per cent. of the cases. In many of the cases no result of the leucocyte count was recorded.

Myocarditis was present in 50 per cent.

Pulmonary tuberculosis in 20 per cent.

Peritonitis in 10 per cent.

Severe nervous symptoms either coma, extreme restlessness or delirium in 40 per cent.

Vomiting as an initial symptom in 10 per cent.

Herpes was only noted in 5 per cent.

The spleen was increased in size in 45 per cent. Of moderate size in 5 per cent. Of small or normal size in 50 per cent.

The cases with an enlarged spleen, all exhibited some complication, either a myocarditis, a pericarditis or peritonitis, except three, and of these three, two had fatty livers and the third had a very marked anaemia.

In comparing the temperature, the respiration and the pulse, the most noticeable feature was that the pulse was comparatively slow in many instances; in half of them, during most or all of the time, below 120. Nearly all the cases exhibited a respiratory frequency above 30, most or all of the time, and half of them showed a very plain increase in the respiratory frequency during the course of the disease. About one-third of the cases showed a remitting type of temperature and in more than one-half of the cases, most of the time, the temperature was above 102.

*Asthenic pneumonia.* The classification of asthenic pneumonia is not as yet established upon a uniform basis. Aufrecht follows Leichtenstern and classifies them under two heads: The primary and the secondary. In the former the especial virulence of the micro-organisms, is supposed to be a cause; in the latter, the individual,—a subject of some chronic disease or weakened by old age, is supposed to be especially susceptible. Fraenkel is inclined to disregard the secondary type. In these puzzling cases, there is often no definite chill observed. One to two or three days elapse before the dullness reaches the periphery. The upper lobes are more commonly involved. The nervous symptoms are very pronounced,—from a mild stupor to coma or to furious delirium. A great prostration is noticed, even at the beginning of the disease, the lips and tongue are very dry and there is tremor with severe gastro-intestinal symptoms, such as vomiting, diarrhoea and tympanites. The clinical picture resembles that of typhoid fever. There is often-times no cough and consequently no sputum. The pulse is often dicrotic and the heart action much weaker than in most pneumonias. Spleen and liver are enlarged and albumin almost always present. The course is apt to be protracted with marked variations and irregularities in the fever. The nervous condition is probably responsible for many of the temperature remissions. Anatomically, it seems to be a rather relax-

ed infiltration with a very rapid transition from the red to the grey hepatization and with a much more frequent transition to abscess or gangrene. They are clinically very much like the influenza pneumonia and frequently occur in epidemics. Icterus often complicates them. This brings us to the discussion of so-called "pneumotyphus." If a lobar pneumonia complicates typhoid fever, it appears during the height of the typhoid, that is in the second and third weeks; rarely it may occur even at the beginning of the disease; and frequently it occurs during the convalescing period. It is difficult to determine accurately whether the pneumonia occurring at the height of typhoid fever is in reality produced by the pneumococcus. The sputum is often times hemorrhagic and generally speaking the condition is due to an infarction rather than to pneumonia. The temperature increases but there is no crisis. Fraenkel has not seen any undisputed case of a lobar infection of the lungs caused by the typhoid bacillus.

#### *The Connection Between Pneumonia and Malaria.*

Most of the German authors are unable to discuss this problem from their own experience, but quote various authors, especially Baccelli. Greisinger says, "It seems that rare cases occur in malarial districts which probably deserve the name "pneumonia intermittens" in which there develops chill, then fever, dyspnoea, bloody sputum, crepitation of the lung, some dullness upon percussion of the thorax; where, however, with the sweating and with the marked remission of the fever, all the above symptoms noticeably lessen or even disappear. In a daily or tertian rhythm, these attacks repeat themselves with every paroxysm, the infiltration becomes plainer but it also remains in the interval. After four or five paroxysms, as a rule the patient dies." These paroxysms are stated to effect the left lower lobe exclusively. It is evident that this type of disease has absolutely nothing to do with pneumococcus infection, it must be a localization of the malarial virus in the lung. Two years ago, I reported two cases, one in a child, another in an adult, which although very mild, simulated this condition. Baccelli considers such as among the very rarest of conditions; he distinguishes two forms in which the pulmonary parenchyma is affected. No. 1, *Febris subcontinua pneumonia*. No. 2, *Febris proportionata*. The former is characterized by a partial disappearance of the paroxysmal character.



The pulmonary signs consist of those of congestion, dullness of the percussion tone, the appearance of moist (especially coarse) rales; true bronchial breathing; and a bloody sputum. Marked prostration, a tendency to coma, and icterus also occur. The disease disappears under the use of quinine. Anatomically, the process is probably a bloody or serous infiltration of the pulmonary parenchyma, as contrasted with the second form about to be described.

In *Febris proportionata* there is a double infection, the plasmodium and the pneumococcus both act. Both produce very characteristic symptoms, but modified by each other in such a way as to produce a mixed clinical picture. With each fresh paroxysm, there is an increase in the pulmonary symptoms, dyspnoea, cough, pain and expectoration, and these symptoms are ameliorated with the appearance of sweating during the afebrile interval. Although quinine will influence the periodicity of the fever, it has no influence upon the course of the pneumonia. Baccelli claims that a true intermittent pneumonia, that is a true fibrinous pulmonary inflammation with a lobar distribution is never produced by the direct action of the malaria plasmodium. Fraenkel agrees with him.

9 West 35th Street.

### THE TREATMENT OF LOBAR PNEUMONIA.\*

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vue Hospital.*

The only excuse that can be offered for even a few words on this time worn subject, is that they will, chiefly, be an appeal against the meddlesome treatment of the disease, and a plea for increased care in nursing.

*Prophylaxis*—As two-thirds of the cases occur from December to May, inclusive, it is hardly necessary to dwell upon the importance of avoiding exposure, and upon the need of care of the minor catarrhal affections of the upper air passages. The throats, even of healthy individuals, often yield the pneumococcus, at times in pure cultures. Therefore the routine use of a gargle would seem wise. It is difficult to make our patients do this. But if we in-

\*A part of the Symposium on Pneumonia before the Orange Mountain Medical Society.

struct them to use a bland alkaline antiseptic as a tooth wash, and then rinse the mouth and gargle with the same solution, it would soon become as easy and natural as cleansing the teeth.

*Specifics*—We have all seen a large number of drugs come, exploited as having specific action, and, proved valueless, go the way of their predecessors. As for example iodide of potash in overwhelming doses; ammonium salicylate; the inhalation of chloroform. Creasotal, though not considered as a specific, seems worthy of continued trial. Tuttle and Carter, in their admirable paper, "Data Regarding Acute Lobar Pneumonia," (*Medical and Surgical Report of the Presbyterian Hospital* Vol. VI., January, 1904), report a series of 101 cases with 16 deaths, the patients receiving ten minims of creasotal every two hours. While in a series of 196 cases, treated by other means, there were 52 deaths, or a mortality of over 26% compared to one of less than 16%. These two series were similarly selected from uncomplicated cases, and were all treated two or more days in the hospital.

Of serum therapy, it can only be said that we are still hoping great things for it.

*General Management*—From the onset to the end of the disease, every effort should be made to conserve the strength and resisting power of the patient. And no detail that will aid in this desideratum should be overlooked. We never know positively that life prolonged a few hours or even minutes, may not bring the patient to defervescence. In these efforts the nursing is of the utmost importance. The sick-room should be large, well lighted, plentifully aired, and as quiet as possible. The exposure of the patient to a direct current of cool air from an open window, has as yet but few advocates. The bed-clothing should be light. For the good of the patient, examinations of the chest should be made but once daily and then with as little moving about of the patient as possible, never in the sitting posture. To restrain the patient in delirium, force should be used as little as possible, consistent with keeping him in bed and preventing him sitting up.

*Diet*—Until the second or third day of normal temperature, the diet should consist of fluids. Milk should be stopped or diminished when tympanites exists to any extent.

*Drugs*—There is a mistaken and much

too prevalent idea that drugs must be used in every case of pneumonia. They are to be used only for symptoms and conditions that cannot be relieved by other means. If in doubt about using a drug, do not use it. Err on the side of inactivity. Most of the therapeutic errors in this disease lie in the opposite direction. When drugging is indicated, there is more chance for skillful and judicial medication than in almost any other disease. A large number will need no medicine, and some, no treatment of symptoms even by other means. The treatment of the more severe cases consists in the meeting of conditions as they arise. And here, if the symptoms can be relieved by means other than drugs, use them always.

*Pain*—The relief of this symptom is important to promote deeper and less rapid respiration, for obvious reasons. Of the mechanical means, strapping is least to be desired, particularly in children, because it limits the expansion of the chest if applied tightly enough to relieve the pain. There is not much choice between hot and cold applications. Neither should be heavy enough to limit chest expansion. Again this is more important with children. Use whichever gives the more comfort. If it is immaterial to the patient use cold (as the ice poultice) for its effect upon the fever.

When there is much pain and little toxæmia or cyanosis codeine or morphine may be exhibited in small doses. Morphine certainly seems to produce a greater effect upon respiration than in health, with consequent increase in cyanosis, and should be used not as a drug of choice but of necessity.

*Cyanosis*—The importance of this symptom is often underestimated. Because of its tissue repair is everywhere insufficient. Of greatest importance is the damage done the brain and the heart.

There are three causes: toxæmia, pulmonary consolidation, and cardiac failure. For the relief of the toxæmia elimination must be increased if possible. Large amounts of water should be drunk. The skin should be kept active by warm baths, at least daily. A moderately free catharsis is indicated. Irrigation of the colon with normal salt solution is of benefit. In more severe cases hypodermoclysis may give good results. The most grave toxæmias require bleeding, when at least twelve ounces of blood should be with-

drawn. An improved condition would result from this operation more often if it was practised earlier. It is too often deferred until the patient's condition is hopeless.

The consolidation of the lung produces an obstruction to the pulmonary circulation and a reduction of surface for the oxygenating of the venous blood. In the former nitro-glycerine or other arterio-dilator is of service. For the latter the supply of oxygen should be increased, either by increasing the amount of fresh air, or providing oxygen gas. For this purpose the funnel inhaler is preferable to the small nozzle so often accompanying the tank and wash-bottle. The duration of the cyanosis should be reduced by any and all means at our disposal to the very minimum. Pressure from below the diaphragm, by tympanites, should be combated by catharsis, hot applications to the abdomen, the use of the rectal tube, and the elimination of milk from the dietary.

Cardiac failure results from improper blood supply to the heart muscle, and from over-work. The former condition has been considered. The latter has to be met with drugs or blood-letting. While the pulmonary second sound is sharply accentuated, no stimulant is indicated. But when this accentuation fails, stimulants must be used. Of the stimulating drugs alcohol is chief, certainly in all patients who have been in the habit of using it. Next digitalis, always in conjunction with nitro-glycerine or some other arterio-dilator, to avoid an increase in arterial tension. Strychnine is valuable. Ammonium carbonate is of especial benefit where in addition to the cardiac failure there is a bronchitis that increases the dyspnoea. Again, hypodermoclysis is of value.

*Temperature*—Even early in the disease, the coal-tar products are of doubtful value and are contra-indicated at all other stages. Cold should be applied to the head. Tepid or warm sponge baths from 80 degrees to 98 degrees F. are of the greatest value. If delirium exists with a high temperature the cool bath may be used with care.

*Delirium and insomnia*, if more than moderate, must be treated. If quiet, fresh air, hot fluid food, baths, etc., do not give relief, the milder sedatives and hypnotics, as the bromides, or trional may be tried. Should these fail we have as a final means



the choice between codeine, morphine, or even hyoscine. These should not, we believe, be used until all other means have proved of no avail.

*Dyspnoea*, is a symptom of one or more of the conditions already touched upon.

*Oedema of the lungs*, requires vigorous use of the dry cups and active counter-irritation of the entire chest. When it is due to cardiac failure that of course calls for appropriate treatment.

*Complications*—The most common is *pneumonia with effusion*. The teaching of the day is to aspirate, as soon as the diagnosis is made, for the operation tends *per se* to cure the condition. Should the effusion be purulent, the proper operation to meet the condition and age of the patient should be performed.

*Pericarditis*, if fibrinous, is treated by cold applications, as the ice-cap, to the precordium. If serous, aspirate. If purulent, operate.

*Convalescence* is usually rapid. A post-pneumonic delirium is sometimes annoying and requires treatment. In about two days after defervescence, food can be given almost as the appetite of the patient dictates. All but the aged and debilitated are able to be out of bed by the fifth or sixth day after defervescence.

*Delayed resolution*—The extremely sad, and fortunately rare cases of sudden death that we see after convalescence has begun, are almost all of patients with delayed resolution. And the cause of death is usually cerebral or coronary embolus. It therefore seems not at all improbable that the delayed resolution is due, at least in part, to pulmonary thrombosis, and this is the source of the emboli. These patients are frequently allowed up and about. If the above supposition is correct it behooves us to care for these cases most carefully, keeping them quiet and in bed until the resolution is complete.

107 East 70th Street,

### CONSIDERATIONS OF FACIAL SPASM—"TIC CONVULSIF"—MIMETIC FACIAL SPASM.

By J. Leonard Corning, M. D., LL. D.,  
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The pathology of motor deficiency—paresis, paralysis—is much better understood than that of motor irritation or spasm. It is self-evident that any break of motor conduction between the surface

of the brain and the muscle, any disease destructive of the cortico-muscular conduction-path must inevitably cause paralysis of voluntary motion. No equally broad dictum is possible with regard to spasm. We are not clinically or experimentally justified in affirming that irritation at every point of this tract is capable of producing tonic or clonic contraction of voluntary muscles. It may, therefore, be readily imagined that in the realm of regional diagnosis the consequences of this disparity of knowledge are especially striking.

In dealing with the question of localization in paralysis we have the following well-known fundamentals—not to speak of other and more collateral dicta—in peripheral paralysis, when long continued, there is, besides the loss of power, inevitable atrophy of the implicated nerves and muscles; in spinal paralysis atrophy is present only when the large ganglion cells of the anterior cornua of the cord, connected with the affected muscles, are destroyed; while in paralysis of cerebral origin, there is no degenerative atrophy whatever of the paralyzed muscles.

No doctrines of equal scope are available to help inference in the domain of spasm. Indeed it is frequently impossible to determine from its character only whether a spasm, isolated and uncomplicated, is central or merely peripheral in its origin. In some instances, however, the peculiarity of its manifestation affords valuable aid in determining the pathological significance of the spasm. Thus the exceeding short and rapid contractions (tremor) occurring on voluntary movement of the muscles ("intention tremor") are characteristic of multiple sclerosis, being encountered more often in that disease than any other. The fibrillary contractions present in progressive muscular atrophy are likewise significant, and so too are the choreic movements, whether occurring as the major symptom of St. Vitus dance, or in the course of other cerebral diseases (hemiplegia, etc.) The chief features of the nomenclature of spasm, based largely, as may be imagined, upon the visible modifications of morbid involuntary movement as displayed in the clinic, and not, as could be wished, upon a complete apprehension of the pathological mechanics involved, may, for the sake of continuity, be briefly indicated.

First to be noted are the two main divisions of spasm into tonic and clonic. By tonic spasm is understood that form of the affection characterized by a striking prolongation of the muscular contraction—for hours, it may be, or even days; while to that consisting of intervals of contraction and rest, alternating with each other in more or less rapid succession is applied the epithet "clonic." Besides these we have single contractions, appearing either as slow movements or as sudden twitchings of the muscles; fibrillary contractions, or spasm of separate muscular bundles; rhythmical contractions; tremor, that is, contractions relatively short, following each other in rapid succession; choreic movements—irregular contractions, varying in intensity and distribution; epileptiform convulsions, the wide-spread tonic or tonic-clonic spasm seen in epilepsy, hysteria, or organic diseases of the brain; co-ordinate spasms or forced movements, characterized by the performance of more or less complicated compulsory acts—moving in a circle, pressing forward, spinning around the axis of the body, marching in a circle, jumping, screaming and laughing. For the three last mentioned phenomena hysteria is in most instances responsible; while for compulsory rotation (forced attitudes) disease of the cerebellum and cerebellar peduncles is commonly held accountable.

Then, to conclude the list, we have the so-called cataleptic rigidity, a condition of hyper-tonicity of the muscles, the latter acting without the sway of the will, in such wise that, when the limbs of the subject are placed in any position, the attitude is passively maintained for a long time; associated movements, or contractions occurring in muscles other than those concerned in the action willed, most frequently met with in cerebral disease (hemiplegia), but also occasionally observed in medullary affections; and athetoid movements, slow contractions, common in the fingers and arms, but also observable in the head and trunk, phenomena occurring either as an associated symptom of certain diseases of the central nervous system, notably of infantile cerebral paralysis, or as a special disease—athetosis.

These are the principal varieties of morbid involuntary movements; and any further subtleties of classification, in the

present state of pathology, are, in my opinion, both supererogatory and obstructive.

**Clonic Facial Spasm.**—The affection which constitutes the burden of the present writing is undoubtedly one of the most frequent and in some respects, at least, the most important form of spasm. As its name implies the convulsive manifestations are interrupted (clonic) in character, appearing as short, rapidly alternating contractions in several or nearly all of the muscles supplied by the facial nerve. But one side of the face is usually affected, and the amount of distortion produced depends upon whether a few or practically all of the muscles supplied by the nerve are involved. Moreover, the occurrence of the spasm in the form of separate attacks, with remissions, prolonged more or less, or as an almost unbroken succession of rapid contractions, will have much to do with determining the degree of mortification and discomfort to be endured. During the attack, the play of the affected muscles imparts a bizarre, grotesque expression to the countenance; and ignorant persons, viewing the unusual facial antics, frequently imagine that the subject of the strange disorder is "making faces at them." Only exceptionally does the spasm extend to the muscles of the neck, the tongue and those concerned in mastication.

The immediate provocative causes of the spasm are laughing, talking, voluntary movements, and sudden impressions upon the special senses. As to the remoter causes very little is known. Sometimes a lesion of the trunk of the facial, due to cold, has been held responsible; in others, aural trouble or disease at the back of the skull seemed to afford a clue; while in a considerable number of cases a reflex provocation, as in trigeminal neuralgia, offered an obvious explanation. Over and above these, however, certain cases—and they were by no means few in number—disclosed a history of prolonged emotional or intellectual strain, accompanied by more or less physical exhaustion, immediately preceding the advent of the spasm. Several such instances have occurred in my own experience; and the question has naturally arisen, whether a larger proportion of these cases of clonic facial spasm were not really central in origin, whether their cause was not



to be found, in fact, in irritation of those cortical centers whence issue voluntary or involuntary (reflex) excitations of the nerve. Further, the fact that cases presenting such a history are relieved and occasionally completely cured by sedatives—bromides, valerian, hyoscine, veronal—combined with tonics—arsenic, iron, quinine—lends confirmation, more or less, to the idea.

About a year ago, a lady was referred to me, who, for three months had been troubled by clonic facial spasm. The attacks, confined to the lower half of the left side of the face, exceedingly frequent and annoying, came on, so it seemed, as the sequence of bereavement and worry, culminating in anæmia and obstinate insomnia. This, in my experience, is a common history. Under a combination of tonics and stimulants—iron and arsenic, hyoscine and veronal, zinc and valerian—she so far recovered that the spasm had nearly disappeared. Going out, however, for a walk, one day, she lost her foothold on the slippery pavement, and, falling with violence, sustained a severe contusion on the right side of the head. When picked up she was unconscious, and so remained for upwards of half an hour. There was no fracture, but the effects of concussion persisted for a long time. What adds an element of interest in this connection is the fact that, shortly after regaining consciousness the spasm in the face again appeared with redoubled violence. Only after weeks of energetic treatment combined with complete rest has it been possible appreciably to reduce the frequency and vehemence of the contractions.

I have also had under my professional care of late two other cases of clonic facial spasm, both of which seem destined to turn out happily—the one, a nurse, in whom the spasm came on after several weeks of hard work, most of it at night; the other, a man, a carpenter by trade, who developed a severe, general spasm of the left side of the face as the sequel of prolonged worry and insomnia. In both these cases forced sleep and feeding, combined with sedative and tonic treatment, has been followed by almost entire disappearance of the trouble.

Not in all cases, or indeed in a considerable proportion, is such a favorable termination to be expected. This applies especially to those in which there is no obvious cause of central irritation—to those, in short, in which there is apparent

reflex or direct irritation, or in which, *faute de mieux*, we are obliged to assume the presence of such provocative. Then a despairing recourse to those old and frowzy precepts—"Remove the cause," if possible; counter-irritate; apply the electric current, and be prepared for failure, always resignedly mindful that *ex nihilo nihil fit!*

In these intractable cases, I have occasionally tried compression of the nerve; but, unless the pressure be sufficiently severe and prolonged to cause paralysis, there is little good, even temporarily, to be had from it. The same may also be said of nerve-stretching, the spasm disappearing during the interruption of conduction, only to return, however, upon the disappearance of the paralysis.

In conclusion there remains to be described an important form of partial facial spasm—blephorospasm, or spasm of the eyelids. The muscle involved is the orbicularis palpebrarum, and the contractions—whether tonic or clonic, may be of reflex origin, the former traceable in many instances to eye strain or other ocular derangements. Both the tonic and clonic varieties are, as a rule, bilateral, and may continue for weeks and even months.

In the tonic form the attack comes on in a kind of paroxysm, causing the lids to close tightly. The action of light, voluntary closure of the eyes and overstrain of accommodation, may precipitate an attack; and the same may be said of irritation proceeding from various branches of the trigeminus. The so-called "pressure points" of von Graefe are usually situated at the points of exit of the branches of the trigeminus or upon the spine. In the tonic form of spasm fairly strong compression of these regions is frequently followed by the immediate opening of the lids. Unfortunately the aid of such necromancy is not always to be had, since in instances not a few, the most painstaking efforts fail to discover the existence of those significant localities.

Correction of ocular defects, the removal of disturbing reflexes, sedatives and electricity in its various forms, are the correctives commonly invoked. Sometimes good results are obtained with comparative promptness, but again, the affection may prove unaccountably obdurate, resisting every attack, whether local or general, persistence can make against it.

## A PLEA FOR A MORE CAREFUL EXAMINATION IN RECTAL CASES.

With Some Points on the Office Treatment of Diseases of the Anus and Rectum most Frequently Met With.\*

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So much has been said under this heading that it is hardly seems fair to the subject to present it to you in so brief a paper as this must necessarily be.

I only hope the paper will stimulate a free discussion and that some points of value will be brought out that will be of future service to some of us and consequent comfort to some sufferer who may consult us.

There are two groups of diseases in the domain of medicine that I believe to be the richest field for the quack and charlatan; namely, genito-urinary and ano-rectal diseases. I believe it is the fault of the physicians themselves that this is so. Whether this is on account of the anatomical location of these diseases, and the natural repugnance one has to making a thorough examination, I know not. But I do know that there seems to be a lack of knowledge of these diseases on the part of a great many physicians. The examinations are made, if made at all, in a careless slipshod manner, and in a great many cases the patient makes the diagnosis himself and the physician is satisfied with prescribing some ointment for what the patient thinks is piles, but may be a fissure, or some astrigent injection for a urethral discharge, when a stricture of the urethra may be the fault. Without a knowledge of the cause of our patient's symptoms we cannot expect to relieve him and because we do not relieve him he is driven to the advertising specialist, who *does* make the necessary examination. And consequently relieves the patient and pockets the fee, that rightly belongs to us.

The different diseases of the anus and rectum present so many symptoms alike that a careful examination of the parts is absolutely necessary to make the diagnosis.

\*Read at the April meeting of the Camden City Medical Society.

Pain, hemorrhage, tenesmus, itching, and moisture may mean either hemorrhoids, internal or external fissure, fistula, pruritis, eczema or cancer. Surely the treatment in all these cases is not the same. You will pardon me if I repeat, it is a duty you owe to your patient to make a careful examination, or refer him to one of our own brotherhood who will, in order that he may receive the advice and relief he is willing to pay for. By doing so you will help strip the charlatan, of some of his fees and prestige.

On account of the natural fear of ether and an operation a great number of rectal cases, especially of the male sex, will not even consult their family physician, fearing that an operation may be advised. They are easy victims to the lure of the man that advertises, no ether, no knife, no loss of time and positive cure. No doubt in most cases a quicker and better result can be obtained under ether, but they care not for that, they will not take ether, they will not be operated on, and they will not give up their time. In these cases I feel that, for our own protection, we are justified in advising less radical methods.

The following points in the ambulatory treatment of the cases of ano-rectal diseases more commonly met with, I offer to meet just this class of cases. The office treatment of ano-rectal diseases appeals strongly to the business man of to-day. And our own investigations have placed in our hands weapons that will deprive small operations of pain and enable us to palliate many, if not all, of the discomforts of a majority of the diseases of the anus and rectum. These very remedies, that rightly belong to us, are used by our competitors to our loss and detriment.

In the treatment of all diseases of the anus and rectum, we must always keep in mind the condition of the patient's bowels. Proper remedies in the line of diet and laxatives should be used that will assure a free soft daily evacuation. Alcohol and tobacco should be used sparingly. Cleanliness and the requisite number of hours rest should be insisted upon. We must also anticipate pain

*Internal Hemorrhoids, Injection Method.* There are a great many formulas that have been recommended for this method of treating internal hemorrhoids all of them containing carbolic acid in various strengths. The original French preparation of phenol sodique (phenol Boboeuf) as used by Dr. Collier F. Martin, of Philadelphia, I have



used it in a great many cases with very good success. I believe it less painful than any of the other preparations.

The technique, as suggested by Dr. Martin is briefly as follows: The patient's sphincters are first divulsed under nitrous oxide gas followed by the introduction of a suppository containing ichthyol and cocaine, and the application of hot wet compresses for a few minutes. The patient returns in four or five days for the first injection, which should contain from seven to fifteen minimums of a fifty per cent solution of phenol sodique. Inject but one tumor at a time, the patient receiving an injection at intervals of about one week, using suppositories of ichthyol and cocaine to control the pain. The tumor is injected through a speculum.

Dr. Gant, of New York, ligates internal hemorrhoids under sterile water anesthesia. I have used this method, and in cases of single internal hemorrhoids, I can recommend it very highly, but in multiple hemorrhoids my experience has been that, with the ligation of one tumor, the others become inflamed giving the patient a great deal of pain, although Dr. Gant, who is a very skillful operator, recommends the method.

In those cases of long standing, ulcerated, prolapsed internal hemorrhoids with sphincter-algia employ divulsion under nitrous oxide gas and the use for several days of a suppository containing adrenaline, hamamelis, ichthyol and opium, with attention to the bowels, until the inflammation subsides and then use the injection method. If the piles be complicated with fissure, do not introduce a speculum or treat the pile until the fissures are first healed.

*External Hemorrhoids.* External hemorrhoids are treated by excision under a thorough local anesthesia of eucaïne or cocaine, two per cent. with adrenaline 1-10,000 and dressed antiseptically. If the pile is much inflamed, first reduce the inflammation with laudanum and lead water and then operate. External thrombotic piles are very painful, immediate relief can be given by transfixing the tumor with a curved bistoury, cutting through and turning out the clot. Then trim away the edges of the incision and pack with iodoform gauze. Treat subsequently as any other wound.

*Fissure.* In the majority of painful rectal conditions fissure or ulcer is the cause of the pain. Local applications of nitrate of silver, about every fourth day, will usually

effect a cure. If it is an old fissure or ulcer with a great deal of sphincter irritability, under local anesthesia with a bistoury divide the fibres of the muscle under the base of the lesion, thus placing the muscle at rest.

*Sphincter-algia,* will be relieved by slow divulsion and massage to the muscle, the patient returning about every fourth day; or rapid divulsion under nitrous oxide gas.

*Fistulae.* Simple fistulae, either complete or incomplete, can readily be operated on under local anesthesia, carefully injecting the solution along the tract of the canal. The fistulae opened all the way into the bowel, curetted and packed. I have done some very extensive dissections in these cases, under eucaïne or cocaine anesthesia. Complete fistulae should be operated upon under ether.

*Ischio-Rectal Abscess,* should be treated as abscess in any locality, but always warn the patient that he must return to have the fistulae, that invariably follow these cases attended to.

*Eczema.* The local application of a dusting powder or ointment, composed of acid salicylic and zinci oxide usually control these cases.

*Pruritis.* The drugs that have been recommended for the cure of this most obstinate condition, would make a long list. Any irritation such as piles, fissures, cutaneous tabs, eczema, fistulae, intestinal parasites should be attended to. Treat any constitutional disease such as gout, rheumatism and nervous disorders. Ointments of acidi salicylic, acidi carbolici, cannabis indica and tar, or solutions of menthol, cocaine or carbolici acid and applications of hot water, are all recommended, but often fail.

I have as you see, touched briefly upon the treatment of the most common of the ano-rectal diseases. Your success in treating these cases in your office, and permitting the patient to attend to his vocation, depends a great deal upon your technique. You will notice no doubt, I have spoken freely of the use of cocaine and eucaïne, I have never had any bad effects from their free use. I have seen some exhilaration and nervousness from them, which passes off very rapidly. Any preparation containing cocaine or opium which I put in the hands of the patient, I furnish myself, and I never tell them the nature of the drug they are using. I believe eucaïne to be a safer drug than cocaine, it can be sterilized and I do not think it leaves the soreness that cocaine does.

In injecting a local anesthetic I use a very small sharp needle, do not at once plunge it deep into the tissues, but carefully insert the point just into the skin forcing out a small amount of the solution, and then follow this up slowly, injecting a little at a time, until the needle is deep in the tissues. By this method, carefully done, about the only pain felt is the first prick of the needle.

As much care should be used in the after treatment of these cases as at the time of the operation. Free application of cocaine will permit us to dress the wounds without pain.

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### CONGENITAL HEART DISEASE.\*

By Edwin Holmes, M. D., Englewood.

GENTLEMEN: I have chosen as the subject of my paper this afternoon, "Congenital Heart Disease" in the hope that a brief resume of our present knowledge of this condition may prove of some interest and value. My own interest in the subject dates from one of my earliest cases in private practice, when during a routine examination of a baby four months old, who up to that time had been apparently healthy and who was supposed to be suffering from malfeeding only, a well marked case of congenital heart disease was discovered.

In this paper I want to review briefly the general subject of congenital heart disease and then report a few cases that have come under my observation. If in this way I can bring more prominently to your attention a condition far more frequent, as I believe, than is commonly supposed; and lead as well to a readier recognition of such conditions, through a more systematic examination of all children we are called upon to treat, my object will have been accomplished.

All through the early history of medicine, indeed down to comparatively modern times, malformations of the heart were attributed to the influence of evil spirits, an easy and graceful way of overcoming anatomical difficulties. As however the study of anatomy advanced, and more careful and accurate descriptions of anatomical conditions prevailed, these notions gave way to broader views, and excellent descriptions of congenital heart disease are found in the pages of Morgagni early in the eighteenth century.

\*Read before the Bergen County Medical Society.

Antagonistic views were also held in early days as to the development of these abnormalities. Some holding to a primitive defect in the germ; others to some opposing force after fecundation. Friedberg was among the first who made a patient study of circulatory organs in the embryo and Rodkitansky in his immortal: "Handbuch der pathologischen Anatomie" gave a complete classification of all abnormalities of the heart and vessels. Since then, Peacock, Meyer, Herne, Kussmaul, Gibson and many others have patiently investigated and laboriously collected data until our present knowledge seems to rest on a firm anatomical and scientific basis.

Ætiology—Congenital diseases of the heart are somewhat obscure in their ætiology, but are commonly and naturally divided into:

1. Continuation of foetal conditions after birth, such as patent foramen ovale and patent ductus arteriosus. Such conditions being normal in the foetus but abnormal when remaining for any length of time in extra-uterine life.

2. Foetal endocarditis. When such an inflammation has taken place in intra-uterine life it leaves various pathological changes which are usually located in the right heart and are in connection with the pulmonary artery, causing stenosis or atresia and various valvular malformations. These conditions are generally accompanied by hypertrophy and dilation of the heart, with which for compensation, is often associated the patent foramen ovale, patent interventricular septum and patent ductus arteriosus. Osler states that the changes in foetal endocarditis are almost always of a sclerotic nature and Colbeck explains the frequent occurrence of endocarditis in the right side of the heart by the fact, that the right side is exposed to greater strain than the left during foetal life, and that on this account malformations are more common there, and endocardial affections seem easily superinduced upon such conditions.

3. Interference with the normal development of the heart in intra-uterine life. This results in such malformations as open ventricular septum, transposition of the great vessels, pathological conditions of the valves, such as imperfectly developed or accessory cusps, or absence of large vessels.

In addition to these more common conditions are certain rare forms more interesting from a pathological than a clinical standpoint such as "cor biloculare" when there is one auricle and one ventricle "cor trilocu-



lare" with two auricles and one ventricle, double apex, and certain other rare forms of the abnormal.

Lesions. In the great majority of cases several lesions are present. Out of 242 cases collected by Holt in only 23 was there a single defect, these being open ventricular septum in five, patent foramen ovale in nine, pulmonary stenosis in six and patent ductus arteriosus in three. The most frequent combinations are pulmonary stenosis with defective ventricular septum; pulmonary stenosis with patent foramen ovale, and a combination of the three.

Defect in the ventricular septum is the most common of congenital cardiac lesions and in many cases, as we have seen, is associated with pulmonary stenosis. The opening ranges in size from about one quarter of an inch in diameter to complete absence of the septum. Associated with this condition are often abnormalities in the origin of the great vessels, the aorta arising partly from each of the ventricles, or the aorta and pulmonary artery being given off from the common ventricle. Where there is any degree of stenosis at the pulmonary orifice an opening in the ventricular septum acts in a compensatory way by allowing a passage for the blood from the right to the left side of the heart. Rokitsansky, who spent fourteen years of a busy life studying the "septum cordis," states that three months is the longest he has known life to last when any degree of stenosis has been accompanied by imperfect septum.

Pulmonary stenosis is a very frequent lesion. The first authentically reported case of congenital disease of the heart by Morgagni was of this nature, in a girl of sixteen years. It is nearly always due to a foetal endocarditis, is often a primary lesion and almost always accompanied by hypertrophy or hypertrophy and dilation of the right heart, besides being associated with defects in the septa and patent ductus arteriosus. This latter condition was found in 13 per cent. of the cases of pulmonary stenosis reported by Kussmaul. It is the most important lesion clinically, as being more often associated with cyanosis than any other defect and also being the main lesion in a large percentage of cases of congenital cardiac disease, which attain adolescence or adult life. In Peacock's series of forty-five cases which lasted beyond the twelfth year, eighty-six per cent. had pulmonary stenosis. It is claimed by some authors that a reduction in the calibre of the artery predisposes to pulmonary tuberculosis.

Patent foramen ovale is a common but not so frequently an important cardiac defect. When of pathological importance the opening varies from one quarter of an inch in diameter to nearly complete absence of the septum and is generally associated with other lesions. According to Holt it may be due to atelectasis. It is of less importance clinically, because, when associated with other lesions, it is generally subsidiary to them and when occurring alone has been discovered a number of times on autopsy in middle aged people, who during life, had never given any symptoms referable to the heart.

Patent ductus arteriosus is seldom found alone, but is generally associated with a pulmonary stenosis, defects in the septa or both. In pulmonary stenosis it acts in a compensatory way by allowing a passage for the blood to the lungs, when the pulmonary orifice is obstructed. This defect and the lesions at the pulmonary orifice constitute the most important group of congenital cardiac lesions and were found in 119 out of 181 cases reported by Peacock. Pulmonary insufficiency, tricuspid, mitral and aortic defects are all comparatively rare and it need only be noted in passing that at all orifices stenosis is much more common than insufficiency and is always due to a foetal endocarditis.

Among abnormalities in the origin of the great vessels, conditions which are always associated with other lesions, the more common are transposition of the aorta and pulmonary artery, origin of the vessels from a common trunk and the origin of the aorta from the right ventricle or from both ventricles. In addition may be mentioned abnormalities in the segments of the valves, there being sometimes rudimentary, sometimes accessory cusps. But these conditions are of minor importance and are mainly of interest in that they are more liable to undergo sclerotic changes.

Symptoms. The most common symptom of congenital cardiac disease is cyanosis, which is present in from 85 per cent. to 90 per cent. of all cases and which varies from a slight, almost unnoticeable, lividity to a dark purple. When at all well marked it is most characteristic of this condition, and is of a more intense degree than is found in any cases of acquired heart disease. Out of the seven cases that I have to report to-day three have never developed any cyanosis, a somewhat unusual percentage. Cyanosis generally comes on during the first week after birth and may continue permanently, or

disappear to return again during periods of over exertion or excitement. Two theories have been advanced to explain this condition, but the one offered by Morgagni is accepted at the present time as the true explanation. It is that the blue tint is due to the general congestion of the venous system due to the obstruction of the free passage of the blood through the right side of the heart; and although the main factor, has doubtless associated with it as minor causes, mixture of venous and arterial blood and enlargement of the cutaneous vessels.

Associated with cyanosis very commonly is clubbing of the fingers and toes and often a marked loss of superficial heat, owing to the sluggish condition of the circulation. The patient frequently complains of chilliness, but the thermometer shows no change from the normal in the internal temperature. Dyspnoea is often a marked symptom and sometimes the only one of which the patient complains. It may be continuous, but is more often noticed only after some unusual excitement or exertion and there may be asthmatic paroxysms, similar to the cardiac asthma of acquired heart disease. Owing to the deficient blood supply there is often a retarded development of the entire system and the mental status is one of dullness and apathy. A cough is frequently met with, which is worse at night or on lying down or after exertion, and associated with it is a tendency to hemorrhage as manifested by hemoptysis or epistaxis. Dropsy is seldom found, although the conditions seem favorable for its development. As was pointed out by Gibson and confirmed by later investigations, the condition of the blood is one of high concentration, the specific gravity averaging according to Banholzer, 1071. The number of the red cells may be 9,000,000 per c. m., and the white cells 16,000. In one of my cases in which the blood could be counted the red cells were 6,104,000 and the white cells 9,600. These changes are according to Ewing, due to "the transudation of fluids into the tissues through the capillaries, increased exhalation from congested lungs and possibly increased evaporation from the skin."

In addition to the symptoms already mentioned are those due to various complications, which as a rule arise from interference with the pulmonic circulation and result in bronchitis, broncho-pneumonia and tuberculosis. The latter, Rokitansky held, was seldom found in connection with congenital cardiac disease, but certainly later

observers have found it one of the most, if not the most, common complication of this condition.

Various intestinal troubles are also met with from time to time.

Physical signs. In addition to the cyanosis, and malnutrition, already described, there may be on inspection an arching forward of the walls of the chest over the praecordia due to the enlargement of the heart while the chest wall is still plastic. The cardiac impulse is sometimes displaced outward, is generally forcible, and there may be a systolic thrill felt over the base of the heart.

Percussion will generally show an increase of cardiac dullness, generally to the right more rarely to the left.

Auscultation generally gives a systolic murmur over the base of the heart and often there is an accentuation of the second sound. With pulmonary stenosis is heard a loud blowing systolic murmur most distinct over the left costal cartilages, though often extending over most of the praecordia. An open ventricular septum gives a loud systolic murmur heard over most of the chest. According to Colbeck, "the characteristic feature of the murmur is that it is heard most distinctly along the course of the inter-ventricular septum—a line approximately from the junction of the second left costal cartilage to a point one-half inch within the apex beat, and diminishes rapidly as the stethoscope leaves this line."

Patent ductus arteriosus generally gives a loud systolic murmur at the second left cartilage, with accentuated second sound. Patent foramen ovale of itself gives no physical signs.

Diagnosis. It is usually possible to make a diagnosis of congenital heart disease, but always difficult and often impossible to state actually the particular lesions present. The fact that there is nearly always more than one lesion, and that the combination of such lesions is so numerous and varied, as well as the fact that the symptoms and physical signs are often out of all proportion to the extent of the pathological changes, conspire to prove an almost impenetrable barrier to an accurate knowledge of the lesion or lesions present. In general, cases which present cyanosis, a systolic murmur at the base of the heart, attacks of dyspnoea on exertion or excitement, and enlargement of the right side of the heart can be attributed to congenital heart disease.

Patent foramen ovale and patent ventricular septum rarely give signs referable to



themselves, but when such conditions are present, the signs usually result from some associated lesion. When cyanosis is present without a murmur, it is generally due to a defect in either one or both of the septa.

Patent ductus arteriosus is nearly always associated with a pulmonary stenosis and its signs are apt to be overshadowed by the more prominent lesions. Holt says that pulmonary stenosis is about the only lesion which can generally be diagnosed, and it is marked by a loud, blowing systolic murmur, heard with maximum intensity over the pulmonary area, and by cyanosis.

Prognosis. Of course, in the majority of cases of congenital cardiac disease, the prognosis is distinctly unfavorable. Out of 225 cases recorded by Holt, 60 per cent. died before the fifth year. Sixteen per cent. lived more than sixteen years, and 8 per cent. more than thirty years. Slight obstruction at the pulmonary orifice, when accompanied by a sufficient amount of compensatory hypertrophy, is perfectly consistent with health and long life.

Patent septa, either auricular or ventricular, do not necessarily interfere with life, except in cases where the inter-ventricular septum opening is large. Duroziez reports a case of a woman who died of erysipelas at the age of seventy-six, where a large inter-ventricular opening was found, which had given no symptoms through her life. And a number of cases similar to this are scattered through medical literature. In cases of patent ductus arteriosus the prognosis depends upon the amount of narrowing of the pulmonary orifice. Where this exists in any great degree, the patient rarely survives beyond the twelfth or thirteenth year. Defects in the valves are dependent as far as their prognosis is concerned upon the extent of these accompanying lesions.

Transposition of the great vessels is incompatible with life for any length of time. In all cases the general condition of the patient and the way the circulation is being carried on are of more importance in the prognosis than is the presence or absence of murmurs.

Treatment. This can only be hygienic and symptomatic. Fresh air, avoidance of all causes which may lead to bronchial irritation, such as exposure to cold, careful feeding and freedom from excitement and over exertion constitute the essentials. Attacks of dyspnoea may be helped by a few drops of aromatic spirits of ammonia or by camphor and spirits of chloroform. Vene-

section may be resorted to at times, but only small quantities of blood should be removed. When compensation begins to fail digitalis may be used with care. No treatment of the lesion itself is of any avail.

The following seven cases will illustrate some of the foregoing points:

Case 1. George W., 13 years, poorly nourished. Height, 4 feet 6 inches; weight, 61 pounds. Early history rather vague but mother says he has always been "blue." At present is markedly cyanosed, especially at extremities, face and lips. Constant dyspnoea, becoming very marked on slight exertion, excessive clubbing of fingers and toes. There is a marked arching forward of the chest wall over the praecordia. There are apparently two apex beats seen and felt. One, 1 1-2 inches below and a little to the inner side of left nipple, the other 3-4 inch to inner side and a little below the right nipple. Dullness is marked from right nipple line to a little beyond left nipple line, and from second interspace above to lower extremity of sternum. The cause of the seeming right apex beat is evidently the marked hypertrophy and dilation of the right ventricle. There is a loud, almost whistling, systolic murmur heard with maximum intensity in third left interspace just to outer side of the sternum, and extending approximately along the line of the interventricular septum, although heard over most of the chest in front and behind. This murmur becomes rapidly fainter on leaving this line. This is the only case that I have seen where this point, brought out by Colbeck, is clearly demonstrated. The second sound is markedly accentuated. The blood count here shows 6,104,000 red cells and 9,600 leucocytes. The diagnosis is probably one of pulmonary stenosis, associated with an opening in the interventricular and possibly the interauricular septum and the prognosis is unfavorable.

Case 2. Frank A., aged 5 years. Well nourished. Slight cyanosis of extremities and face, and suffusion of the conjunctivae. Moderate clubbing of fingers and toes and some dyspnoea on exertion. Apex beat is in fifth interspace, just inside the nipple line and the heart is enlarged to the right, dullness extending from 1-2 inch to right of the sternum nearly to left nipple line. A loud systolic murmur is heard all over the praecordia, with its maximum intensity in third interspace, 1-2 inch to left of sternum and extends over an area almost two inches in circumference. This murmur is also heard more faintly over most of the back. This case is probably one of pulmonary stenosis with some associated lesion. The boy of late seems to be improving and the prognosis is fairly good.

Case 3. Samuel H., aged 3 1-2 years. Slightly rachitic, fairly nourished but pale and anaemic. No cyanosis or clubbing of fingers or toes. Slight dyspnoea on exertion. Some increase of cardiac dullness to left and a faint thrill felt over apex of heart, which is located in the fifth interspace a little to the outer side of the nipple line. There is a loud systolic murmur heard with maximum intensity in second left interspace, at border of sternum. From time to time patient has attacks of what his mother calls: "weakness," during which he is languid and disinclined to play, with some dyspnoea but no cyanosis or apparent pain. This case cannot probably be diagnosed, but

seems more like a pulmonary stenosis with a defect in one or both of the septa. Prognosis is not very favorable.

Case 4. William J., age 6, colored. Well nourished but rachitic. Absence of cyanosis but slight clubbing of fingers and toes and dyspnoea on exertion. Apex beat in fifth interspace, 3-4 inch to outer side and a little below left nipple. Dullness begins at right border of sternum and extends a little beyond left nipple line. A loud systolic murmur heard over most of the heart with point of maximum intensity in third left interspace at sternal border. This is heard down nearly to nipple but not heard at apex. No diagnosis here was made. Prognosis seems fairly good.

Case 5. Edward A., aged 9 years. During first year of life mother noticed that at times he became "blue," especially after protracted spells of crying. At one year had lobar-pneumonia, when examination revealed a loud blowing systolic murmur heard over base of heart, and after any exertion or excitement he became considerably cyanosed. Heart was not enlarged and there was no clubbing of extremities. This murmur with cyanosis coming on after any unusual excitement or exertion continued, gradually diminishing for nearly two years. Now the boy is well developed, strong and apparently perfectly well. The heart is normal in every way. This case is apparently one of patent foramen ovale, which subsequently has closed. The prognosis is perfectly good.

Case 6. James B., aged 3 1-2 years, was perfectly well until four months old, when he suffered from a severe attack of gastro-enteritis. At this time, during a routine examination, a loud blowing systolic murmur was discovered, which was heard over most of the front and back of the chest with a point of maximum intensity at the junction of third left costal cartilage and sternum. There was no cardiac enlargement, cyanosis, dyspnoea or clubbing of extremities. At present the boy is the picture of health and the only symptom or sign is this murmur which still continues, though slightly diminished. A diagnosis here seems impossible. Prognosis apparently good.

Case 7. Florence W., aged 3 years. Fairly nourished. Slight cyanosis, some suffusion of conjunctivae and clubbing of extremities. Apex beat of heart in sixth interspace in nipple line. Cardiac dullness extends from right border of sternum to a little beyond left nipple line. There is a loud systolic murmur heard most distinctly in third left interspace at left border of sternum covering an area about 3-4 inch in diameter. Over the remainder of the praecordial field is heard a fainter murmur synchronous and of same quality, but of lower pitch. This same murmur is heard behind, near angle of left scapula. The child had frequent attacks sometimes as often as two or three in a day, of what seems like angina pectoris with cyanosis, dyspnoea and apparent pain. In some of these attacks she will scream and struggle; in others, lie quietly moaning for an hour or two. Between attacks she is apparently well. No diagnosis has been made of the lesion present but prognosis is unfavorable.

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### CONCERNING MUNICIPAL MILK INSPECTION, WITH A NOTE ON TUBERCULOUS MILK\*

By William S. Green, M. D.,

*Milk Inspecting Officer of the Board of Health of the City of Paterson, N. J., and Medical Inspector. Licensed "Health Officer," N. J. Board of Health.*

This subject of city milk inspection can be considered from two view points.

*First.* A perfect inspection system, perfectly carried out under the provisions of a milk ordinance, complete in every particular, and based on a State law as comprehensive in detail as is necessary, with proper effective penalties for violations.

*Second.* An inspection system carried on in as effective a way as an inadequate State law, and a necessarily weak and defective ordinance will permit, with such funds as may be available.

The first method of milk inspection is the ideal one. It is the perfect model. To attain this perfect form of milk inspection, thereby securing the perfect product, "absolutely clean milk," is the earnest endeavor of all those who are enthusiastic in their labors in this important field of practical hygiene.

As the secretary has limited me to a short time, and as others preceding me have spoken on the subject, I will outline very briefly how some of our cities conduct their milk inspection, and their endeavor to approach the "ideal method."

Health officers are, of course, always limited by the existing law in their endeavor to produce the desired results. The State law usually prescribes the standard of total solids as 12 to 13%; fat extractive content

\*Read before the Passaic County Medical Society.



3% ; the specific gravity minimum 1029 at 60 deg ; bacteriological standard to range from 30,000 to 50,000 per c. c. ; and a temperature minimum of 50 deg. F. The two latter provisions are left out of the law in some states. Some city ordinances do not allow the sale of milk where living apartments are connected with the store.

The milk ordinances of most cities further define "adulteration" to be milk drawn from animals within thirty days before parturition, or ten days after (albuminous M.) ; milk from animals fed on distillery waste, swill, or on any substance in a state of fermentation, or putrefaction ; milk from cattle kept in a crowded condition ; and of course, the addition of any foreign substance, chemicals, dyes, etc.

With the above limitations of the law, and under the above conditions, samples are taken by an officer of the Board of Health, and subjected to chemical examination ; and when necessary, or required, a bacteriological examination is also made. If the test shows that the law has been violated, the offender is prosecuted in such court as the law particularly designates. The chemical evidence, by special provision of the law, must be introduced last. The penalty on conviction, in this State is \$50.00 fine. It is mandatory.

Some milk ordinances provide a further punishment of the revocation of the license for one year on the conviction of a second offense. The health board's, or the health officer's scheme of "rules and regulations" (based on the milk ordinance), usually includes a form of agreement which is introduced and made part of the application form for "License to sell Milk." This form of agreement is duly signed by the one seeking the license, and he therefore binds himself to obey these rules. Following is the text I prepared for the head of the "Application" form I am using in Paterson :  
*"To the Board of Health of the City of Paterson, N. J. :*

"The undersigned hereby applies for a license to sell fresh and condensed milk and cream in the City of Paterson and makes the following statement and agreement in accordance with an ordinance of the Board of Health, passed January 24, 1905, and in accordance with the rules and regulations adopted by the Board of Health governing the inspection, examination and sale of milk.

"I hereby agree that no milk shall be delivered from cows that are unhealthy ; from cows receiving any kind of medicine ; from

cows with inflamed udders, or with the udder or any part thereof in abnormal condition from any cause.

"In case of the appearance of any contagious or infectious disease in my house, family or among my employes, or in the house, family or among the employes of the owner of said dairy or dairies supplying me with milk, I agree to immediately make report to the Board of Health. I also agree to carefully observe the Board's rules concerning the manner of leaving milk on premises placarded for contagious and infectious diseases."

These rules require, among many other things, the periodical cleansing of milk wagons, ice boxes, stables, utensils, etc., by milk venders ; and even details the formulae to be used in making up solutions for this purpose. Systematic inspection of vehicles, premises, utensils and surroundings, is constantly being carried out by the officers of the health board. In our city, at all times, a strict observance is maintained for the detection of any source of typhoid fever contamination.

In the previously mentioned blank form of "Application for a Milk License," is this statement : "In case of the appearance of any contagious or infectious disease in any house, family or among my employes, or in the house, family or among the employes of the owner of said dairy, or dairies, supplying me with milk, I agree to immediately make report to the Board of Health." This is signed as part of the conditions upon which the license is issued. Failure to make such a report causes the forfeiture of the license, as well as liability under the Sanitary Code.

Whenever a case of typhoid fever, tuberculosis, diphtheria, scarlet fever or smallpox is reported to the Board of Health, the source of the milk supply is immediately ascertained, and the following notice is served upon the milk man :

"You are furnishing Mr. \_\_\_\_\_ with milk. You are hereby notified that you must comply with the following rule of the Board of Health :—

"During the period of isolation the milk vender should pour the milk into a vessel furnished by the family, the transfer of the milk being done in such manner as to avoid the handling of the family receptacle by the vendor, or the transmission of contagion to his hands or utensils. The milk vendor is also forbidden to collect milk tickets from said premises for the same reasons ; coupon

tickets that are destroyed as used may be substituted in such cases. The milk ordinance forbids milk vendors leaving bottles or utensils at said premises until such premises have been disinfected by the Board of Health."

The purpose of this is self evident, the handling of the external surface of the receptacle by the trained nurse and by the convalescent, and then the subsequent washing of the vessels with the milk dealers whole stock of utensils, etc., is prevented.

At its best, municipal inspection of milk will fail in some degree to produce perfect and clean milk. To be fair and just with the farmer and purveyor, who are more ignorant than careless, (I might say in a few cases vicious) boards of health must make a much greater application of the educational element amongst the people. The boards of health must of necessity be the instruments and leaders in such an "Educational Campaign."

My experience is that the milk-man does not at all comprehend what kind of dirt health officers and physicians wish to have kept out of the milk. Until he does clearly grasp this idea, we shall not succeed in getting much cleaner milk, even though, by enforcing a bacteriological standard, we drive him to attempt to do his own inspecting in order to produce a milk up to the standard; failing which, he quits the business altogether, the milk syndicate comes in, and up goes the price.

I will state that by such bacteriological examinations of milk as I have made, I am convinced that milk coming to us from the neighboring farm districts is freer from bacteria than milk from railroad sources. Prof. Harrington, a Harvard authority, states in a recent article, that in all the bacteriological tests and examinations of milk yet made in connection with a search for the source in any of the noted typhoid fever outbreaks, at the time of its occurrence, no one has ever yet been able to find the characteristic bacterium and demonstrate it. Of course, there is no reasonable doubt that it has been present.

I have omitted describing in particular some of the details of our methods of milk inspection here in Paterson; such as just how a sample is taken and how it is tested and analyzed; because this is not interesting to physicians. In the package I have laid upon the President's table you will find, if you care to examine, samples of all the forms used by our health Board and by my-

self. Included are the brass wagon tags, store license certificates and seal, the rules, regulations, etc., blank forms for license, applications for wagons, booths, stores, etc., laboratory record blanks, methods of keeping complete records of all transactions, prosecution blank forms, notices, list of suitable tools for those who take samples for analysis, etc, methods for obtaining evidence against violators of the milk ordinance, etc.

NOTE. As there is much being said about the "white plague" at the present time, a line about tuberculous milk may be added. Much difference of opinion has existed amongst the medical men over the claim that milk from tuberculous cattle can and does produce human tuberculosis. The accepted view now is that there are two distinct varieties of tuberculosis; that there is a demonstrable difference between the two kinds of tubercle bacilli. Bovine tuberculosis, through the medium of ingested tuberculous milk, does not ordinarily develop either form of tuberculosis in man. Prof. Koch, being satisfied that this is so, has quit experimenting on this line. Tuberculous milk will readily produce its particular form of tuberculosis in certain susceptible animals by inoculation. The tuberculin test should be used as freely as ever to cull out all tuberculous cattle from dairy herds, but not for just the same reasons as formerly.

It may be interesting to the physicians present to state, that there have been three authentic cases, found by the U. S. Bureau of Animal Industry, of the production of a form of tuberculosis by direct inoculation in man by milk from a tuberculous cow.

1st case: Cream applied to a child's leg suffering with ivy poisoning.

2nd case: A man with a cut finger milked into open wound from a tuberculous cow.

3rd case: The removal of tattoo marks with needles and milk.

Post mortem examination of the cow in each case revealed tuberculosis. According to Theobald Smith in the human intestinal tract something interferes with the absorption of the bovine bacilli, but allows the human bacilli to pass into the circulation. There is danger if the intestinal tract be flooded with bacilli, particularly if there be a lesion of the mucous membrane.

Tuberculous milk is always dangerous aside from bacilli, owing to the toxins present. Such milk if injected into tuber-



culous animals, causes a reaction. Tuberculous milk of a mother will in time prove toxic to her child. The question of the excretion of bacteria by active mammary glands with no apparent lesion, is still under close study in research laboratories. It is now about determined that only those bacteria which are capable of acting on the walls of the blood vessels so as to cause hemorrhages are able to pass from the blood into the milk; and in those cases in which bovine tuberculosis has been detected in the absence of evidence of mammary lesions, the chances are that more or less alteration of the vessel walls has occurred in consequence of altered nutrition. The blood of a cow may teem with anthrax bacilli, yet if the vascular condition be perfect, no evidence of their presence in the milk can be found. This explains why no bovine tuberculosis is found in the milk of cattle, in the early stages of tuberculosis; and though they do respond to the tuberculin test, their milk can be fed to calves and pigs for perhaps months before the later become tuberculous.

There is no reason, however, to cause the veterinarian to relax his efforts to protect us by using the tuberculin test upon the dairy herd.

### CAN OUTBREAKS OF MEASLES BE CONTROLLED?\*

By Thomas N. Gray, M. D.,  
East Orange, N. J.

Mr. President and Members of the New Jersey Sanitary Association:—This query propounded by your executive committee as one calling for discussion, and, if possible settlement, seems to assume that such outbreaks are not controlled, and further warrants the inference that there is an element of danger in the non-control.

How widespread and frequent are such outbreaks? What are the grounds for the necessity of control? Why not controlled? How may we gain control, if it can be gained? These are the questions involved in the topic which I shall discuss. No exact data can be obtained in this state, of the extent and frequency of measles epidemics. An extensive correspondence, however, tells the story of measles endemic in nearly every part of the state every year and at intervals, evidently cov-

ering the time necessary for the available material to accumulate, and the occasion, when this material will get in the line of attack, breaking out into an epidemic. Available material seems to be, a sufficient number of children, virgin to the poison, arriving at the school age. In the line of attack undoubtedly is the gathering together of this material in the day and Sunday schools. Supplement these two premises with the facts, that the morbid principle of measles is very tenacious of life and the most active of any of the eruptive diseases, and that the susceptibility to it is more general than to any of the others, and no wonder will exist that if there is no control, nor no attempt to get it, the disease does, and will continue to occur epidemically at fairly regular intervals. That there is no control the State Board of Health emphasizes in its 1897 report, when it says, "Measles thus far has baffled all attempts to prevent its frequent re-appearance as an epidemic," and again in 1900, "Measles continues to reappear in the various Sanitary districts of the State with much regularity, almost every locality experiencing an outbreak of this disease every fourth or fifth year." In 1894 Dr. John L. Leal, now an honored ex-president of this Association, in a paper read before it on "Restriction and Prevention of Communicable Diseases of Childhood," drew a graphic picture of the unrestricted occurrence of scarlet fever and diphtheria, and regretted the lack of success in the efforts to restrain them, giving the non-support of public opinion as a prime cause of the failure, and made a strong plea for the education of the public to the danger, and for the use of all the equipment of science on the part of sanitarians. Incidentally he referred to measles as worthy of some attention at the hands of health boards. To-day, not regret, but the pride of an earnest worker is his, in the knowledge that public opinion has been educated and that sanitarians now meet an outbreak of either of these diseases with promptness and effectiveness. Measles, however, continues to come as it will, the public now, as in 1894, being unaroused and science standing aloof.

Is there no danger in this never ending repetition of measles epidemics, or has this disease a serious aspect, of which the public is ignorant or careless, and which should arouse those engaged in the work

\*Read before the New Jersey Sanitary Association, Dec., 1904.

of preventing disease to the most determined effort?

The history of measles is a dark one, old writers giving it a record which shows it to have once possessed an intense virulence. Happily in this day this extreme virulence is seldom seen, either because of its lessened power, or because a relative immunity toward it has been acquired by successive generations through the actual immunity gained by previous generations, or for both reasons. But though weakened in virility, or meeting a partial immunity, measles has not wholly lost its power to kill, the State Board placing the fatalities from it at an average of 160 a year in this state for a number of years and in the year 1900 it was responsible for over 12,000 deaths in the United States; over twice as many as scarlet fever carried off. Some may advance the argument that measles caused more deaths in that year than scarlet fever, because of a greater number of cases of the former than of the latter. Rather would this be an argument for a necessity for control. But these figures do not tell all the story of measles and its inroads on child life. No disease of childhood is attended with so serious complications, not sequellae, but exaggerations or extensions of the lesions produced by the specific poison. Chief among them capillary bronchitis and broncho-pneumonia, magnified in their intensity because induced by and acting in conjunction with a poison, and consequently more frequently fatal than when occurring under ordinary circumstances, uncomplicated with another disease. The fatalities from these complicating diseases should figure in the mortality of measles, because they are occasioned by its poison. Nor does the effect of this poison stop here, for it is one of the most important of factors in preparing the way for tuberculous infection. Osler says, "The complications and sequellae combine to make it a very fatal affection in children." Surely if we have succeeded by sanitary measures and strict legislation and quarantine in lowering the mortality rate of scarlet fever, or if by these same means and by the addition of antitoxin to the armamentarium of the physician, have robbed diphtheria of its terrors, the swath which measles cuts is wide enough to incite us to some systematic and scientific effort to at least restrain it.

The facts established that measles outbreaks are both frequent and extensive, and that the mortality rate from these demands control. The solution of the question as to the possibility of curtailing these epidemics rests largely on the causes of the present inaction. The character of the poison, present from beginning coryza and continuing through the whole course of the disease to the final desquamation of the powder fine skin, is one cause. The attitude of the laity, which holds measles in low esteem, another. Mortifying as it is to say it, the attitude of many physicians, who also hold it in contempt, is partly responsible. Finally the attitude of sanitarians must be counted in the category. Because the State does not include it among the communicable diseases, but very few localities require it to be reported. In the majority of places where a report is required, a notification of the schools ends the board's connection with it. In others a quarantine, but very inefficient, is maintained, and again in the localities where an earnest effort is made to arrest the progress of an epidemic, the board is handicapped on the one hand by the failure of physicians to report and on the other by parents failing to call in a physician, and allowing the unaffected children free entrance to the contaminated room, and unrestricted contact with other children on the street and in various public places. The failure of physicians to do their part, or of sanitarians who make no effort to interfere with the course of an outbreak, or to throttle the disease when endemic, is unaccountable. Is it that we have held the disease as of no importance? The facts about the seriousness of measles are common knowledge or ought to be. Or is it especially on the part of sanitarians, that, having met defeat in former attempts to control this elusive, insinuating, unrecognizable poison we have given up, laid down, and allowed it "free lance"? The 1896 report of the State Board of Health, after reciting the lack of early recognition of the first cases and the always rapid spread of an epidemic, says, "To apply isolation restrictions under these circumstances does no good." What would the public say, what excuse could we make, if we took this position when the first cases of scarlet fever or diphtheria had escaped recognition and detection and



the epidemic was well under way when discovered? Would we dare say, "this is too hard for us?" The true animus of science should be, to direct its efforts against every form of infection or contagion, no matter how hard the proposition.

While the history of attempts to stop epidemics of measles is, at first sight, one of failure, who can say, in a given epidemic, where an earnest effort has been made to check it, how many escaped who, if no effort had been made, would not have done so? We can tell the number attacked. Rarely has the opportunity been given to know the number of susceptible unattacked, no matter what the contagion. Undoubtedly the wonderful activity of this poison, and the susceptibility to it of such a great percentage of the un-immunized make it the most difficult of all contagions to contend with, and for these reasons, if for no other, the first step in an effort to gain control should be its admission to the list of communicable diseases. It seems somewhat farcical to read on the list of reportable diseases given out by a locality far removed from railroad and seaport, the plague, cholera and yellow fever, with no mention of measles which eats and sleeps in the place. Especially should measles be made reportable by the fact, recognized by physicians, that certain people will take medicine when they will not take advice, and consequently an injunction given them to keep the unaffected children off the street and out of school is disregarded. These same people do have a wholesome regard for the Board of Health, and an order from it would be obeyed.

The declaration by the State Board of Health that "Primary cases should be dealt with as energetically as smallpox" is axiomatic. The failure to detect the primary case is responsible for the failure of efforts to prevent an outbreak. Make the disease reportable, and fine every physician and parent who can be convicted of non-report. Make them have respect for the fine, if they have none for the disease. Make them suffer in pocket, if they help to make the community suffer. Perhaps this will lead in time to the early recognition, and so to the discovery of the primary case and the prevention of an epidemic. But if the first case continues undiscoverable, the duty

of the sanitarian is no less. His effort to control an outbreak should be just as great as to prevent one. Isolation, quarantine and disinfection cannot fail to do some good. Fifty years ago, Sir Thomas Watson, in giving the history of an outbreak of measles in the Faroe Islands said, "Isolation was the only sure defense against the disease, 1,500 persons escaping it by establishing regulations equivalent to quarantine." This was one of the few opportunities given for estimating the number saved from a contagion. If the same strict isolation and quarantine was established over every case of measles discovered, as is over the other communicable diseases, and every unaffected child confined to the limits of yard, house, or rooms, with the same notification of day and Sunday Schools and public libraries, and the same disinfection and destruction of books, papers, and toys, then no spread of the disease would come from the places so treated. The cases undiscovered though the fault of parent or physician hold no responsibility for the sanitarian, but those which are known hold a large one. Not alone on the health boards does the responsibility rest. The board of education has its share. Let it have a sufficient number of medical school inspectors to insure a daily visit to every school. Perhaps then will be recognized and discovered the primary case in school; discovered too, when but a half hour of exposure has been given, not as now, after three or four days of coryza and lachrymation. It is a significant fact, in this connection, that in a number of instances epidemics have been broken up by the closing of the school.

School rooms should also be fumigated at regular intervals against this as against all contagions.

Finally let the municipal authorities build the isolation hospital and quarantine station. Then, when health and educational boards join hands, may not the hope be held out that outbreaks of measles may be curtailed, if not controlled, and possibly prevented, by the discovery of the primary case in the years when the disease is endemic only, off guard, and giving an opportunity to science.

Dr. A. Webb Jones, surgeon of the Women's Hospital, Alexandria, reports two cases of hypertrophied breasts in two African boys. He believes that this condition is a reversion to the primitive type when the males aided the females in suckling their young.

## Clinical Department.

### A CASE OF MENINGITIS (TYPHOID OR CEREBRO-SPINAL?) ILLUSTRATING DIFFICULTIES OF EARLY DIAGNOSIS.

By John H. Moore, M. D., Bridgeton, N. J.

The prevalence of cerebro-spinal meningitis in an epidemic form throughout many parts of the country, particularly in New York City and Philadelphia, cities contiguous to our own state, and with the population of which there is daily contact by great numbers of people, makes its early recognition a matter of vital importance; especially if we take into account the fact that the contagiousness of this affection is probably greater than has hitherto been supposed, and that a more rigid quarantine of patients suffering from it and disinfection of houses and localities where the disease has occurred, seem likely to be demanded in the future. The object of this communication is not to contribute anything new in the way of treatment, which in the graver types of the disease seems to be without influence upon either its progress or termination, but to call attention to some of the difficulties that are sometimes encountered in the diagnosis of a typical sporadic case.

In some communities there are not a few physicians, some of whom have been in practice for many years, to whose lot it has never fallen to see a case of cerebro-spinal meningitis, and it is therefore not surprising that some of the sporadic cases should escape recognition and be regarded as cases of cerebral typhoid, or possibly, uraemia. Indeed it is a disease of such protean form as to offer most formidable difficulties in making a positive diagnosis.

Having recently had such a case under my care at the Bridgeton Hospital, I have thought a short outline of it might not prove uninteresting.

The patient, a young Russian Jew, was admitted to the hospital in April last, and was a resident of Norma, a Jewish colony, about ten miles from Bridgeton. The history of the case was vague and unsatisfactory, the patient himself being unconscious at the time of his admission, and little could be elicited regarding his previous history beyond the fact that he had always been a healthy and vigorous man, but that for about two weeks he had complained of headache and general malaise. It was learned, however, that he had spent the previous evening with some friends, that he had drunk a bottle or two of beer with them, and had then excused himself, stating that he was suffering from a severe headache. The family with whom he made his home were aroused about 3 A. M. by a noise in his room and on entering found him in a condition of acute almost maniacal delirium and stripped of his clothing, and it was with difficulty that he could be restrained. A physician was sent for who prescribed and administered morphia hyperdermically, but without much result. His condition growing worse he was brought to the Bridgeton Hospital for treatment. My surgical colleague, Dr. W. P. Glendon, being in the hospital at the time, very kindly prescribed for him in my absence and I saw the case for the first time at ten o'clock the next morning. I learned on my arrival that he had been violently delirious

during the night and that it had been necessary to strap him in bed, in which condition I found him. His temperature was 101 deg., pulse 124, soft and compressible, face flushed and cyanotic, pupils dilated immensely. He talked and muttered continually, relapsing occasionally into a stupor from which he would suddenly rouse himself to resume his former delirious attitude. An examination of the lungs showed nothing abnormal. Heart sounds were also normal. The spleen was enlarged. Hepatic dullness normal. The urine was highly albuminous—s. g. 1020 and acid. Abdomen highly tympanitic. No "spots" present, suggestive of typhoid. Bowels constipated, till moved by calomel. No herpes. The teeth were covered with sordes and the breath and exhalations from the body were highly offensive. The temperature which was 101 degrees when he was admitted rose steadily without remission until the final (third) day of his illness when it reached 103 $\frac{3}{4}$ , being practically uninfluenced by the ice bags and spongings which were used when it reached 103 degrees.

On the second day, marked stiffness of the cervical muscles with retraction of the head was noticed, and the jaws could be opened with difficulty. Motion of the head and neck seemed to cause great pain. No distinct opisthotonus was present. On the evening of the second day, petechial spots began to appear on the legs in considerable numbers. The respiration became very rapid, the pulse undistinguishable, the coma deepened, and death took place on the morning of the third day.

The interesting points in this case concern the diagnosis. Whether it was a sporadic case of cerebro-spinal meningitis, or one of so-called typhoid meningitis. The provisional diagnosis of acute uraemia, which seemed to be among the possibilities at first, having been proved to be untenable by the further progress of the case, which progress however, did not throw quite as much light as was desirable. In the differentiation of the other two affections, not having a competent microscopist at hand, lumbar puncture was not employed, which might have aided in making a diagnosis. I should have added that an attempt to test the value of the "Kernig Sign" did not prove conclusive, as it seemed to be present in one leg, but not in the other, though Hare states that it may be unilateral in rare instances.

Looking back upon the case I incline to the belief that it was a case of cerebro-spinal, rather than typhoid meningitis, especially as about four days later another case presenting similar symptoms and from a nearby locality, to the first case was brought to the hospital for treatment. This patient was not admitted, but I learn from the attending physician that it terminated fatally two days later, and that the symptoms were almost identical.

Speaking of the difficulties of diagnosis in these cases, Trube says: "In exceptional cases, the cerebral form of typhoid fever begins with symptoms indistinguishable from cerebro-spinal meningitis," and that a diagnosis from enteric fever may at times be very difficult. Farther he says, "In some instances, it is possible for meningitis to be confused with uraemia, and Dr. Morris Manges (*Med. Record* May 6th) says, "unless he was careful when called to see a case of cerebro-spinal meningitis, he could mistake it for uraemic coma, because of the albumin in the urine."

This latter view, I at first took in the case just



cited. From these quotations it will be seen that these three afflictions, acute uraemia, cerebrospinal meningitis and typhoid meningitis may easily be at times confounded, and when cases terminate fatally in a few days it may be impossible to make a certain diagnosis during life. In the midst of so much uncertainty too great care cannot be exercised in making a thorough examination of all such cases, and only by a careful collection and weighing of all the symptoms presented can a correct conclusion be reached. In general, the presence of an epidemic of cerebrospinal meningitis and the generally rapid onset of the disease, are of value in arriving at a conclusion.

### AN EXPERIENCE IN THE INTRAVENOUS USE OF FORMALIN IN BACTERIAEMIA.

BY HENRY A. PULSFORD, M. D.,  
SOUTH ORANGE, N. J.

On March 31st, 1903, I was asked to see in consultation C—C—, an Italian woman, 26 years old, a primipara, about six and a half months pregnant. The patient gave a history of having been sick with fever, sweating and cough for thirteen days, and at the time of my visit was propped up in bed, suffering from severe dyspnoea. The pulse was 126, respiration 54, temperature 100.8. An examination of the thorax disclosed the fact that the left pleural cavity was practically full of fluid. Aspiration was performed at once on account of the urgent dyspnoea, two litres of pus being withdrawn. Thirty-six hours later, as there still seemed to be considerable fluid in the pleura, the aspiration was repeated at the instance of the attending physician, though I personally considered incision and drainage a more proper procedure. On this occasion one litre and a quarter was removed. The attending physician then agreed with me in recommending operation. Accordingly on the same day the pleural cavity was opened under infiltration anaesthesia between the seventh and eighth ribs, and two drainage tubes were inserted.

The general condition of the patient remained favorable until the morning of the second day after the operation, when the temperature suddenly rose to 104. On the evening of the same day the pulse was 132, and the temperature 106. There was considerable perspiration, but no change noticeable either in the quantity or the character of the pleural discharge.

At 9.30 the following morning the pulse was 144, the respiration 53 and temperature 107.2. Early in the afternoon I injected five hundred cubic centimeters of 1-5000 solution of formalin in normal salt solution into the median cephalic vein. About an hour later the patient had a chill; the respiration became rapid and gasping, the pulse almost imperceptible and the color cyanotic. Under prompt and active stimulation these alarming symptoms passed away, pulse and temperature fell and at midnight were 120 and 99.4. At six the next morning, however, they had again risen to 172 and 106.6. At nine o'clock I again made an intravenous injection of five hundred cubic centimeters of normal salt solution, this time *without* the formalin. While this was being done the patient was in hard labor, and shortly after the com-

pletion of the operation, was delivered of her child. It was living at the time of birth, but respiration could not be established. After this the temperature remained in the neighborhood of 105, the pulse at about 150. In spite of a free use of stimulants, including the subcutaneous injection of normal salt solution, the strength failed rapidly, the patient dying at 11.30 the following morning.

At the time of the intravenous injection of formalin a blood culture was made and sent to Dr. Dodge for examination. He found numerous colonies of diplococci—probably the diplococcus pneumoniae—and of a slender bacillus which he could not identify. The bacteriaemia I am disposed to attribute to the separation of an infected thrombus in one of the veins of the lung or pleura, and the consequent entrance of the bacteria into the circulatory system. The case was emphatically a desperate one when the intravenous injection of formalin was employed.

### Correspondence.

MR. EDITOR.—The coming meeting of the State Society has one of the best programs ever offered. It is hoped and expected that the attendance of members to hear and discuss the papers will be the largest in the history of the society.

Respectfully yours,

ALEXANDER McALISTER,  
*Chairman Committee on Business.*

*To the Editor:*

SIR.—In view of the need of a revision of the way of doing things at the annual meeting, in order to excite and hold the interest of a larger audience at each and every session and thus insure a flattering sized body of hearers for the speakers, would it not be well to furnish the society some sort of a guarantee that the ridiculous debates on parliamentary questions will be positively avoided this year and valuable time will not be wasted?

The Committee on Scientific Work promises an unusually interesting menu and believes it will attract members for the feast.

As has been suggested by Dr. Wilson, why cannot the House of Delegates transact and complete their work before or after certain prescribed times each session. Such time to be kept sacred to the scientific work. Thus, from 10.30 A. M. to 12.30 P. M.; from 3.00 P. M. to 5.30 P. M.; and from 8.30 P. M. to 10.00 P. M. During these hours no business other than papers and discussions of the same to be allowed.

I am sure this arrangement will please a very large majority of the members and many, who have heretofore remained away, may be found where they belong at the meeting.

Yours very truly,

TALBOT R. CHAMBERS,  
*Chairman Scientific Committee.*

*To the Editor of the Journal of the Medical Society of New Jersey:*

DEAR DOCTOR.—After reading the article in the January number of the JOURNAL, by Dr. Wm. J. Chandler, entitled "The Management of Hospitals," setting forth the abuses practiced by these institutions, and the physicians connected with them; and again noting your editorial of March,

relating to this subject and also to contract practice, I am led to ask if something definite cannot be done to obliterate these growing hospital abuses, as well as those of contract practice. In our own city of Trenton, we have over 15,000 persons employed, 90 per cent. of whom are protected against any expense in case of accident, not one-tenth being allowed to fall into the hands of a physician or surgeon outside the hospital. Physicians connected with the hospitals are often obliged to prescribe for their own patients in the dispensary, free of charge.

The employers pay each hospital a small sum per year and as soon as any of their employees meet with an accident they are shipped to the hospital and treated free. The employers may pay for the use of a room or may pay the patients' board, but the doctors get nothing. A person needing an operation, who desires to go to a hospital to have the same performed can be admitted and the operation performed free of charge, providing the person so treated will pay about \$8.00 a week for a bed. Nearly all the lodges and fraternal societies in the city pay the board of members who are admitted to the hospital, but not a cent does the physician get for treating them.

The remedy is entirely in the hands of the profession; they may either allow the continuation of the abuse or completely banish it from our midst and give each physician an even chance for success.

It seems to me, that if the New Jersey State Medical Society would bar from membership any physician or surgeon who is connected with a hospital that allows patients free advice or surgical treatment, when such patients are not charity patients, or when such patients either directly or through some lodge or employer, have their board paid, without any provision being made for the proper compensation of the attending physician, this would be a step in the right direction and would prevent this unethical form of practice from spreading, even though it should not entirely eliminate it.

Any hospital that is a charitable institution should not be allowed to accept pay patients, and any physician or surgeon who renders professional services in a hospital, supported entirely by charity, should not be allowed a fee for such services.

It was on account of the abuses practiced by the local hospitals and physicians that the Trenton Emergency Hospital was started, offering to take care of accident cases among its subscribers for \$1.00 a year per member, which is much more than the other hospitals obtain. The management of this institution is, however, ready to meet the changes made by the other local institutions and if necessary cease to issue these certificates.

Heretofore, it has been impossible to bring to bear in the Mercer County Medical Society any influence that would do away with contract practice; it being the contention of the members that lodge doctoring was a necessary evil and that persons who employed the lodge physician would not pay any physician; but since the Emergency Hospital has started, a different view is taken and it is to be hoped that a different view will also be taken in regard to hospital abuses, generally, and that some decisive action will be adopted by the State Medical Society.

Hoping you will lend your efforts toward obtaining this result, I remain,

Yours fraternally,  
WM. J. HALL.

*To the Editor of the Journal:*

The first annual meeting of "The National Association for the Study and Prevention of Tuberculosis" was called to order on May 18th, 1905, at 11 A. M. by the president, Dr. E. L. Trudeau, at the New Willard Hotel, Washington, D. C.

The large hall was crowded with over 400 members and guests, and as he arose to make the opening address, Dr. Trudeau was given an ovation such as few men have ever received. It was only after prolonged clapping and when the whole audience had stood on their feet for several minutes, that the doctor was able to proceed with his speech. Throughout the meetings every reference to Dr. Trudeau was loudly applauded, showing again and again the love and esteem in which he is held.

The two general sessions of the Association were given over to formal addresses by the president and vice presidents, Osler and Biggs, in the morning, and Mr. Talcott Williams of Philadelphia, in the evening and to the routine business incident to an annual meeting.

The actual work of the meeting was accomplished in three sections, the Sociological, the Clinical and Climatological, and the Pathological and Bacteriological. Thirty-five papers were read and carefully discussed, and much very valuable information elicited.

The keynote of the entire meeting was the evident desire for definite knowledge with which to combat tuberculosis in all its forms.

There were registered over 300 members and guests from nearly every state in the Union and from Canada.

A striking feature of the association and one which will go far towards making it successful in its fight for public health is the prominent part taken by the non-medical members, and the strong effort made to increase that class of membership.

The concluding feature of the meeting was a banquet presided over by Dr. Welsh, in honor of Dr. Trudeau. Yours very truly,

WILLIAM GRAY SCHAUFFLER.

The annual meeting of the Society for the Relief of Widows and Orphans of Medical Men of New Jersey, was held at the University Club, in Newark, on May 9th. The vice-president, Dr. Archibald Mercer, presided. The report of the trustees showed that the society now numbers 292 members. Over \$1,500 was paid to the families of deceased members during the year and the permanent fund now amounts to \$5,666.38. A contribution of \$50.00 from an unknown benefactor was acknowledged. Twenty-five new members had been added and 13 had died during the year. The following officers were re-elected: president, Dr. Charles J. Kipp; vice-president, Dr. Archibald Mercer; treasurer, Dr. George R. Kent; secretary, Dr. Charles D. Bennett; trustees for three years, Drs. Norton L. Wilson, Edward J. Ill and Richard C. Newton.

A general disposition to bring in new members and to congratulate the society on its growth and efficiency was manifested.

The trustees entertained the members by a collation.

Charles E. Squibb has purchased a farm in Bernardsville which will be used as the site for a hospital.



## STATE MEDICAL EXAMINATIONS.

The regular examination of the State Board of Medical Examiners will be held in Trenton, Tuesday and Wednesday, June 20 and 21. Applications for this examination must be filed with the Secretary before June 10.

Applicants who do not possess a high school diploma or its equivalent should arrange with the State Superintendent of Public Instruction, Trenton, N. J., to take, if necessary, the County Examination for Teachers on the first Friday and Saturday in May, or the State Examination for Teachers on the second Thursday, Friday and Saturday in June.

## THE PURPOSE OF THE COUNTY SOCIETY.

"On other occasions," says *Northwest Medicine*, "we have urged the formation of county societies where they do not now exist and where a sufficient number of physicians is available for their organization. But the most important field for united effort lies in the cities of the state, where the physicians are found in large numbers and where the county societies enroll only a portion of them. It seems to us that the most important work for these societies for the coming year is to gather into their membership every eligible, reputable physician in their midst. Thus will be established a powerful and influential body that will be in a position to secure local and state legislation in the interests of public health and sanitation beside conserving the interests of the medical profession. Whenever, by reason of enlarged membership, the society becomes unwieldy for successful scientific work, it will be timely to establish sections of smaller bodies of physicians possessing similar interests where special work can be conducted. But first of all let us assemble in the county society and make that the unit of organization."

## SIGNIFICANCE OF ALBUMINURIA.

F. C. Hyde says albuminuria means invariably disease of the kidney; if not actually present, at least a susceptibility to it. He is entirely in sympathy with insurance companies, which refuse applicants who show albumin in the urine. He concludes: 1. Physiologic albuminuria does not occur. The terms dietetic, postural, cyclic, and intermittent can be properly used if they are understood not to mean distinct clinical entities. 2. Urine examinations are not complete without the investigation of urine from the whole 24 hours, and especially of the afternoon urine. Life insurance companies should accept only afternoon specimens. 3. Slight afternoon albuminuria is usually the first sign of a beginning chronic interstitial nephritis in individuals over 40; the progress of this can be stopped, at least temporarily, by proper change of habits.—*Yale Medical Journal*.

"F. W. R.— \* \* \* \* had been troubled with a cataract on his left eye \* \* \* \*. When the doctor saw that there was no hope of recovering the use of this eye \* \* \* \* Dr. — performed one of the most skillful operations known to science, that of uniting the optic nerve of the left eye to the nerve of the right eye. The operation was performed in the back of the neck."—*Chandlerville (Ill.) Times*.

## BARBERS AND OSTEOPATHS.

Barbers are making as eager efforts as osteopaths to gain the exclusive dignity of state examinations. "The other evening we discovered a man shaving people who was nothing in the day time but a machinist in the railway shops," the barbers say. "We made him take out a license, and then his machinists' union expelled him. 'You've got another trade now—work at that,' they said. Pretty soon he found that there was not so much money in barbering as he thought (he only wanted to earn fifty or seventy-five cents extra at night, till we made him take out a license), so he tried to go back to the machinists' trade and the machinists would not let him."—*N. Y. Times*.

## SERUM TREATMENT OF TYPHOID.

Chautemesse (*La Presse Medicale*, October 26, 1904), by means of his serum derived from horses inoculated by a soluble typhoid toxin, has reduced the mortality in his 523 cases to 4 per cent., as against 18 per cent. in 2,618 cases treated in other Parisian hospitals where ordinary hydrotherapy is employed. Complications are less likely to occur under the serum treatment, especially if it be used early. The dosage should be less in the severe affections than in those of mild degree.

## CREMATION.

Cremation makes but slow progress in England, in part, because of the judicial decision that, unless express instructions had been left by the deceased, an executor could not dispose of the remains in this way. This decision is on the grounds that everyone is entitled to Christian burial, which cremation was held not to be.

None the less, that the regular practitioners have something to learn from both osteopaths and mental healers is undeniable. Secure in their knowledge that the surgeon and bacteriologist can never be displaced, physicians are all too conservative and too prone to pass by new ideas without proper investigation.—*Evening Post*.

## AN EASY PROFESSION.

"Let every physician," counsels Roberts, in *N. Y. Med. Jour.*, "refuse to accept samples of secret medicines, refuse to waste his time talking therapeutics with smooth-tongued salesmen." His stereotyped reply to all such agents is that he does not prescribe medicines of whose composition he is kept in ignorance. This has saved him many hours for more advantageous occupation. It has been computed that \$80,000,000 have been spent for patent medicines in the United States in one year, enough to give every practitioner in the land an annual income of \$666.00. This situation is worthy the consideration of every self-respecting physician.

## AN AGED BRIDEGROOM.

One of the most mature bridegrooms on record is George Schmidt, of Newark, N. J., who, at the age of ninety-five, recently married a widow of fifty-seven. He is blessed with children, grandchildren, and great-grandchildren, and is stated to have never known a day's illness.—*Boston Med. and Surg. Journal*.

Amariah F. Cliver, candidate for sheriff of Gloucester County, weighs 310 pounds.

# THE JOURNAL

OF THE

## Medical Society of New Jersey.

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**JUNE, 1905.**

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*Each member of the State Society is entitled to receive a copy of the JOURNAL every month.*

*Any one failing to get the paper promptly will confer a favor upon the Publication Committee by notifying them of the fact.*

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### THE END OF VOLUME ONE.

As already stated, this issue ends the first volume of the JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY. It can not be foretold with certainty until after the meeting of the State Society on the 20th-22d of this month what will be the ultimate fate of the publication. So far as the publication committee and the editor know the members of the Society are pleased with our efforts. We have striven hard to carry out the program laid down in our initial issue and leave it to our readers to decide how nearly we have succeeded.

In our salutatory in the leading editorial of the JOURNAL of September, 1904, we gave some of the reasons for beginning the publication of the paper which may be epitomized as follows.

1. The necessity for enlisting the interest of the younger medical men throughout the state in the State Society and inducing a larger number of them to join the Society and to take part in its scientific work and business proceedings.

2. To improve the organization and increase the efficiency of the Society by affording a better means of communication amongst the members so that matters of interest should not be lost sight of during the long intervals between the yearly meetings.

3. To make the members better acquainted with each other, to induce more of them to attend the meetings and to take part in them and to promote a higher grade of scientific work throughout the state.

4. To collect and print many excellent addresses and papers read before the county and smaller medical societies every year, which heretofore have not been presented to the profession in the state as a whole.

5. To induce the hospitals and asylums in New Jersey to prepare and publish better and fuller clinical and scientific reports than they have heretofore done.

6. To aid and sustain the various collateral organizations like the state and municipal Health Boards, the Sanitary Association, the State Board of Medical Examiners and in short every worthy public body having to do with the health and happiness of our people.

The editorial ends with these words:

"Judging from the experience of other state societies that have already started their own journals, numbering now some six or eight, the benefits, which we hope to gain for our Society by this venture, and which we have already hinted at in this editorial, will come to us as they have to our brethren, provided that everyone does his best to make the JOURNAL a success. Every one can help some. Friendly criticism is earnestly invited and reasonable suggestions will be, so far as practicable, carried out. The collection and forwarding to the JOURNAL of interesting news items; the writing of letters to the editor; the preparation of good original papers; and especially the help and cooperation of the reporters of the component societies are earnestly solicited.

"The JOURNAL is in no sense the organ of any one man or set of men. It is not meant to advance or break down any personal schemes. It is the mouthpiece of the State Society and asks the good will and kindly attention of every physician, sanitarian and public man in the State."

How well we have done our part we leave you to judge. We have made mistakes; we see now how things might have been done better. We have worked under some disadvantages; all new enterprises do. We wish to thank our printers, the Baker Printing Company, and all their employees for much kindness and help in getting out our paper. We thank our contributors and many friends for the papers they have sent in and for many kind and encouraging words and many helpful suggestions.

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### X-RAYS AND STERILITY.

The wonderful properties of the Roetgen rays are as yet but partly understood, and it seems quite unlikely that the last word will be said about them for many years, if ever. To our limited senses many of the problems involved in the action of the rays are, and perhaps always will be, unsolved.



The exact part which they are to play in human therapeutics and the dangers to both experimenter and patient are at present only partly understood. Any advance in our knowledge of these questions can not fail to be of interest and value. Brown and Osgood present a paper in the *American Journal of Surgery*, April, 1905., which calls for more than passing comment. They have notes of eighteen cases of men who had worked with X-rays for periods varying from two to six years, and were all found to have become sterile. Their semen presenting under the microscope either azoospermia or oligo-necrospermia. Although none of them had suffered from any venereal disease or traumatism involving the genital tract, none of them presented physical signs of abnormality of these organs and none was conscious of, or gave a history of functional derangement.

These cases are men in robust health from 22 to 40 years of age. Six of them are the subjects of more or less severe X-ray dermatitis of the hands. This sterility has been produced without the slightest subjective or objective sign denoting its insidious development." One half of the men were married and no one of them has had a child since he undertook the work.

A case is given of a man who received X-ray treatment for puritus ani, who, before the treatment began, had abundance of active spermatozoa in the semen. After two exposures to the rays these were not diminished in number, but were dead. After two more exposures he had azoospermia. Five months after this, however, the semen contained large numbers of living spermatozoa. Sterility was also produced in animals, experimentally by the rays.

These results are, as we have said, of the greatest scientific and therapeutic interest, and will doubtless lead to many other valuable experiments.

### THE HYGIENE OF SCHOOL LIFE.

Herdman and McBride presented a report to the Section on Nervous and Mental Diseases of the American Medical Association last June, on the relation of school methods to school diseases, which contains much interesting matter. (*Journal American Medical Association*, April 15, 1905.) They call attention, in the first place, to the fact that a systematic study of the physical condition and life habits of the scholars both in and out of school is necessary before the effects of present

school methods can be determined, saying "It would be manifestly unjust as well as unscientific to attribute results to school methods which may be due in great measure, if not entirely, to other causes."

The first steps towards a regular system of school inspection appear to have been taken in Europe about 80 years ago and in this country 65 years later. Now the custom prevails quite extensively in the cities of the United States and has been adopted in South American countries and in Japan.

The nature of these inspections varies considerably in extent and thoroughness, the most common form of inspection, and perhaps the most essential, being that of contagious and infectious diseases. Fortunately the good results of this hygienic measure are easily demonstrable because the prevalence of infectious disease has been materially lessened wherever it has been adopted.

The figures given in the various reports of such inspections are almost startling. In Boston, in two years, out of 23,207 pupils examined 6,571 cases of disease were detected, and of these 5,818, or one-quarter were too ill to be in school, and 40 per cent. of them were cases of contagious disease. In New York City, in three months, 4,183 children were excluded from school on account of contagious disease out of 63,812 examined. Nine months' inspection in Philadelphia showed 5,876 cases of disease of which 3,446 were contagious. In Chicago the mortality of children from diphtheria was reduced by 50 per cent. during the months of September and October, 1900, from that of the same months for several previous years.

These figures alone would fully justify all that school inspection has cost and demonstrate beyond question its necessity as a routine measure.

Closely allied and almost inseparable from medical inspection is the consideration of the hygienic conditions to which children are subjected in the school buildings, to wit, the architecture, heating, lighting, ventilation, seating, provisions for recreation and the environment of the school buildings.

In France, Germany, Great Britain and Russia, almost without exception, school inspection covers the matters of hygiene and sanitation of buildings, and the recommendations of the inspectors in the matter of alterations in old buildings or

the conditions to be observed in the erection of new ones must be complied with.

A committee of experts was appointed in this country in 1898 to devise methods for securing better sanitary conditions in schools. In their preliminary report they set "forth from abundant knowledge how deplorable are the conditions" of the public school buildings in the United States, and call for more enlightenment on the part of school boards, teachers and others in this regard.

The inspection and care of the child itself is a more difficult and intricate problem and calls for a higher degree of special skill and more accurate and extended knowledge than has yet been brought to bear upon it. Only physicians of the best special training can be capable of satisfactory work in this field. The harvest truly is plenteous, the laborers are few. However, the first step toward supplying this demand is a clear understanding of its necessity. The profession is not yet alive to its opportunities and its duties in this regard. The people want help and guidance in rearing their children in bodily and mental vigor. The teachers realize the urgency of this demand but are not able to meet it without aid from our profession.

Physicians specially fitted for the study of the problems of physical education will undoubtedly come forward to fill the places now waiting for them. And such men will play a part in the elevation and advancement of the human race compared to which the most that curative medicine can do will be insignificant.

### INTESTINAL OBSTRUCTIONS FOLLOWING UNOPERATED APPENDICITIS.

In addition to the paper of McWilliams on this topic, commented upon in our November issue, another by the same author has appeared recently (*New York Medical Journal* and *Philadelphia Medical Journal*) which contains some additional matter of considerable interest.

He found that in thirty-three of these cases the appendix itself was the obstructing band in eleven, having as a result of previous inflammation lost its lumen and been transformed into a band of connective tissue.

He deals somewhat exhaustively with the diagnosis of the condition, and concludes that a leucocyte count is, contrary to the

general belief, of little diagnostic value. Nor is the presence of indicanuria of much aid to the surgeon, inasmuch as this merely indicates an excessive putrefaction of albumin somewhere in the body.

An application of the stethoscope to the abdominal wall affords valuable information if used early. Very violent peristalsis takes place in intestinal obstruction, and may be easily detected before peritonitis has set in, and the bowels have become quiescent from paralysis.

It must be remembered that the early symptoms of acute intestinal obstruction are caused by strangulation of the blood current, and not by mere arrest of the fecal stream.

The minutest point in diagnosis should be carefully studied and its value determined; inasmuch as time is the principal element in the prognosis. These cases yielding wonderfully good results if operated on before the supervention of sepsis or peritonitis, with the consequent shock and exhaustion. It would even be better in some doubtful cases to open an abdomen needlessly, than to allow a patient to die while relying upon ineffective medication.

The general practitioner who usually first sees these cases cannot be too much on the alert for symptoms of obstruction in every case that has ever suffered from an appendicitis or other form of intra-abdominal inflammation. Nor should he allow vanity or any other consideration to stand in the way of a prompt consultation with the most expert and experienced surgeon available.

It is a nice point to decide how far palliative treatment may be carried, and while its value can not be questioned, in many cases as a general rule there is so much risk attendant upon delay that no one is justified in deferring operative procedure unless his opinion is re-inforced by that of a competent consultant.

### BIND YOUR JOURNALS.

The Baker Printing Company offer to bind Volume I of the JOURNAL at the following rates: 1st. Full buckram 40 cents per volume. 2nd. Leather back, keratol sides 45 cents per volume. 3rd. Red morocco back and corners, keratol sides 85 cents per volume.

The Publication Committee have very kindly offered to supply missing numbers of the JOURNALS so far as this is feasible, and suggest that members who have not received all the issues write at once to Dr.



Chandler stating what issues they are in need of. The doctor will also be glad to give the members advice and help in regard to the style of binding.

Let us hear from you promptly, because we can get more favorable terms from the bindery than those quoted, if a considerable number of sets are to be bound.

Of course, it will gratify the Publication Committee and your editor if a large number of you conclude to bind and preserve your JOURNALS, and we shall gladly help you as much as possible in doing this.

### THE STATE SOCIETY MEETING.

We take especial pleasure on calling attention to the report of the Entertainment Committee, printed in this issue, which promises good accommodation, plenty of room for members, and their families and several excellent entertainments during the sessions of the society.

Dr. Woolley and his associates deserve our thanks for what they have procured for us. And inasmuch as the Scientific Committee are offering us the best program that the society has ever had, there seems to be no reason why the coming meeting should not be the largest and most enthusiastic in the society's history.

Are you coming?

### MARRIED.

**Fred Miller Corwin, M. D.**, of Bayonne, to Ida Louise, daughter of Garret Smock Boice, Esq., of Bound Brook, April 25th.

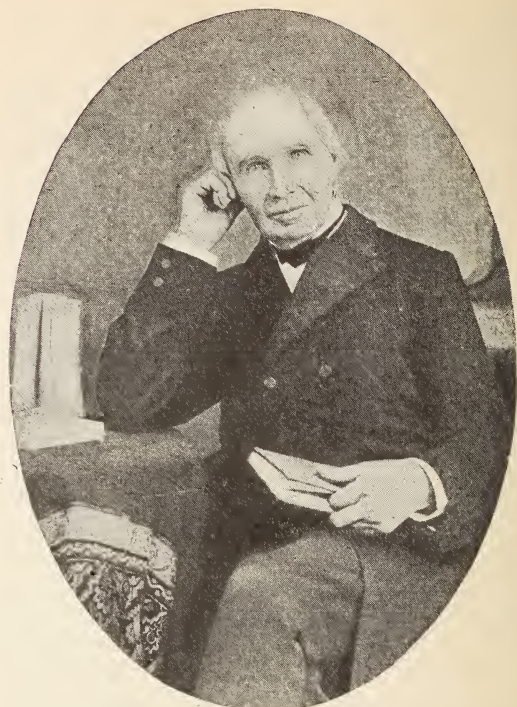
**Paul Monroe Pilcher, M. D.**, New York City, to Miss Mary Finlay, of Montclair N. J., April 26th.

**George W. Fithian, M. D.**, Perth Amboy, N. J., to Miss Mary W. Stathem, of Cedarville, N. J., April 19th.

**Charles Frazer Hadley, M. D.**, of Camden, to Eva Harriet Edwards, of Rosedale.

### OBITUARY.

**Alexander W. Rogers, M. D.**, died at his home in Paterson, May 14th, in his 91st year. He was born in County Armagh, Ireland, in 1814, and was brought to America by his parents in 1816. His father, a Baptist clergyman, settled in Pemberton, N. J., afterwards moving to Scotch Plains, where his son attended school and began the study of medicine with Dr. Archibald Maclay, afterwards matriculating at the College of Physicians and Surgeons in New York City, where he received the degree of doctor of medicine in 1836. He began practice in Paterson immediately, and with the exception of a short time spent in the west in '36 and '37, he continued in practice in Pater-



son until almost the day of his death, a period of nearly 70 years. In 1861 he built for himself the house in which he died. His wife died in 1892. He is survived by a son, James H. Rogers of Paterson, another son, Dr. John A. Rogers, died in 1883.

At his death Dr. Alexander Rogers was the oldest living alumnus of the College of Physicians and Surgeons, and one of the oldest practising physicians in the world. He was one of the founders of the Passaic County Medical Society, a member and an ardent supporter of the Baptist Church, a director of the First National Bank of Paterson and a member of the American Medical Association. He had served for many years as chief of staff of the Paterson General Hospital, resigning a few years ago, and was the first person to hold the office of president of the Young Men's Christian Association of Paterson. He was nominated for mayor of Paterson on the prohibition ticket about fifty years ago, but failed of election.

He read the principal address at the celebration of the 50th anniversary of the foundation of the Passaic County Medical Society in 1894.

Full of years and honors this Nestor of the profession has laid his burden down. His long and honorable career, his spotless life, his devotion to his art and his firm maintenance of principle reflect credit upon an honorable name, upon the community in which he lived and upon the healing art. He maintained his interest in medical progress and in various philanthropic and religious movements until the last, supporting at his own expense a missionary in India. He had also built a Baptist Chapel in Paris. He never lost his interest in medical literature and was an advocate of the establishment of the JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY. He was president of the State Society in 1879, antedating all the surviving Fellows except Dr. John C. Johnson of Blairstown.

**J. Howard Pugh, M. D.**, one of the best known physicians in the state died in Burlington, April 30th, aged 78. He graduated at the University of Pennsylvania in 1852 and began practice in Bristol, Pa., moving to Burlington in 1854, where he continued in practice until his death, a period of over 50 years. He was, when he died, president of the Burlington County Medical Society, the Mechanics' National Bank of Burlington, and the Burlington City Loan and Trust Company, and of the Burlington Library Association, and vice-president of the Burlington Savings Institution. He served as representative in Congress in 1877 and 1878, and had also been a member of the State Board of Education.

He is survived by a widow and two daughters.

**William B. Beach, M. D.**, died April 20th, in Long Branch, aged fifty-five years. He was born in Mississippi, and for thirty years had been a practising physician at Eatontown and Long Branch. He leaves a widow and four children. He graduated at the University of Maryland in 1875. He was a well-known Democrat, having held several minor offices while a resident of Eatontown Township.

**Juliet Potter Tiffany Van Evera, M.D.**, many years a professor of pediatrics in the New York Medical College and Hospital for Women, and a well-known practitioner, died of spinal meningitis at her home in Passaic Park, N. J., aged sixty-nine years.

**Charles W. Carpenter, M. D.**, Bellevue Hospital Medical College, New York City, 1880, died at his home in Newark, N. J., April 18, from cerebral hemorrhage, after a lingering illness.

**Edward Moeller, M. D.**, Examination, New Jersey, 1876, formerly of Newark, N. J., died at his home in Baltimore, March 9, aged 72. He was surgeon of the Twenty-seventh Pennsylvania Volunteer Infantry in the Civil War.

**Seymour C. Troutman, M. D.**, College of Physicians and Surgeons in the City of New York, 1854, died at his home in Somerville, N. J., May 6, aged 83.

## News from the County Societies.

At the annual meeting of the Camden County Medical Society, April 25, Mrs. Lydia Mecray presented to the society a portrait in oil of the late Dr. Alexander Mecray. The following officers were elected: President, Dr. William A. Westcott, Berlin; vice-president, Dr. Joel W. Fithian, Camden; secretary, Dr. Paul M. Mecray, Camden; treasurer, Dr. Sylvan G. Bushey, Camden; historian, Dr. Alfred Cramer, Camden; reporter, Dr. Ezra B. Sharp, Camden; censor, Dr. Duncan W. Blake, Gloucester City, and trustee, Dr. H. Genet Taylor, Camden.

*A clinical night will be held by the Essex County Medical Society at Jacoby's, 882 Broad St., Newark, on June 6th. The particulars will be made known on the cards of invitation.*

The following named gentlemen were elected officers of the Cumberland County Medical Society at the annual meeting held Tuesday, April 11th, 1905.

President, Dr. W. P. Glendon, Cedarville; vice-president, Dr. John H. Moore, Bridgeton; secretary, Dr. L. L. Hand, Millville; treasurer, Dr. Joseph Tomlinson, Bridgeton; reporter, Dr. S. M. Wilson, Bridgeton.

The regular meeting of the Atlantic County Medical Society was held Friday evening, May 5th, at the Islesworth Hotel.

Dr. Joseph Price, of Philadelphia, read a paper on "Pain—Pus—Peritonitis," and Dr. W. Edgar Darnall read a paper entitled "A Plea for the More Careful Diagnosis of the Diseases of Women by the General Practitioner," which led to a general discussion.

The meeting was well attended and much interest was shown. The following amendment to the by-laws, which had been presented at the previous meeting was adopted.

"That on and after the first day of January, 1906, no member of this society shall accept the position of club, society or organization physician, or agree to do any medical or surgical work for any club, society or organization at a less rate than the regular customary charge for like services rendered by other physicians for patients not members of such club, society or organization.

"That in no case shall any physician agree to attend the families of the members of any club, society or organization, or the families of employees of any firm or corporation at a less price than the regular rates charged for like services rendered by other physicians to families of persons not members or employees of such club, society or organization.

"Nothing in this section shall be construed as preventing any member from attending the worthy poor at a less rate or to give free services to those who are too poor to pay anything, or from acting as city, county or town physician, health officer or accepting any political appointment.

"Any member who shall offer to pay or shall pay a commission in consideration of having a case referred to him or who shall propose any arrangement or agree to any arrangement for compensation for professional services not known to the patient or to the party by whom such compensation is paid shall be deemed guilty of unprofessional conduct.

"Any violation of this by-law shall be considered unprofessional conduct, and render the member guilty thereof liable to suspension or expulsion from this society as the society may determine."

Passaic County Medical Society.—An adjourned meeting of the society was held in the Graham Operating Pavilion of the Paterson General Hospital, Friday, April 28th, at 5 P. M.

Order of business:

"Treatment of cystitis in women," Prof. Howard A. Kelly of Johns Hopkins University.

Prof. Kelly held an operative clinic at the hospital from 12.30 to 4 P. M.

1.—Laparotomy for appendicitis.

2.—Nephrectomy.

3.—Laparotomy for ovarian tumor.



The seventy-sixth annual meeting of the Sussex County Medical Society was held at Newton, May 9th. The following officers were elected for the ensuing year: President, M. D. Hughes; vice-president, C. E. Dowling; secretary, Shepard Voorhees; treasurer, E. Morrison; reporter, H. D. Van Gaasbeck; censor, B. Hood; delegates to State Society, J. B. Pellet, T. H. Andress of Sparta, was placed on the honorary list of the society.

### CIRCULAR LETTER 36.

April, 1905.

#### Board of Health of the State of New Jersey.

*To Local Boards of Health.*—Reports of recent observations show that the bacilli of cerebrospinal meningitis are found in the nasal secretions of infected persons, and, therefore, this disease must no longer be considered as infectious only, but hereafter it should also be regarded as contagious.

Preventive measures should be applied as in cases of diphtheria, and in the manner which is described in circular 98, a copy of which will be sent upon request. These measures include (1) isolation of the patient; (2) disinfection of the discharges; (3) purification of the infected apartments and their contents.

Yours respectfully,

HENRY MITCHELL,  
*Secretary.*

The State Board of Health has begun *quo warranto* proceedings against the Bridgeton Board of Health for electing a health physician and plumbing inspector who had not passed the examination of the State board as provided by law. The two men holding the offices have also been cited to appear before the attorney-general at Trenton.

A clinical night was held at the May meeting of the William Pierson Library Association, on May 16th. Two cases simulating Freidrichs Ataxia, a case of psuedo-hyperthophic paralysis, and a case of cerebellar palsy were shown, as well as several cases of squint in children undergoing treatment by optometry, a case of cured marasmus in an infant and a man who had made a remarkable recovery after an operation for a perforation of the duodenum due to ulcer.

"The use of crude petroleum as a temporary expedient, to prevent the larvae from reaching the surface of the water, may be advisable in dealing with cesspools and other small bodies of water where drainage or filling cannot be resorted to, but, to be effectual, its application should be frequently repeated. One ounce of crude oil to fifteen square feet of surface may be sprayed by the use of a pump and hose, or it may be applied by means of a saturated rag attached to a pole. Permanent bodies of water should be deepened at the borders and stocked with small fish."—*Evening News.*

Hereafter applicants for the position of teacher in the public schools of Elizabeth must pass a physical as well as a mental examination.

Of 7,166 pupils in the New York schools, 1,273 were found on examination to have defective vision.

### REPORT OF COMMITTEE OF ARRANGEMENTS.

The Committee of Arrangements most respectfully announce that the Hollywood Hotel, West End, Long Branch, New Jersey, has been selected as the meeting place for the one hundred and thirty-ninth annual meeting of the society.

This hotel is probably the most noted along the Jersey coast. It is situated about five minutes walk from the Hollywood railroad station, and three blocks from the ocean front, on Cedar avenue. It is surrounded by the most beautiful and elaborate private country homes to be found in New Jersey.

There is a lake for fishing about one hundred yards from the hotel, three tennis courts, and golf links.

The trolley to Asbury Park and Pleasure Bay is at a distance of one square from the hotel.

The appointments of this hotel are as fine as can be had, and everything will be made as pleasant as possible for members and their families who attend the meeting.

The usual prices at this hotel are \$5.00 up, but arrangements have been made, whereby the price has been reduced to \$3.50 per day for members of the State Society during the sessions of the annual meeting. The committee have procured space for twenty-five exhibitors. This space is in the most conspicuous place in the hotel. Arrangements have been made to take, as many as would like to go, for a ride over the famous Rumson drive of Seven Bridges on the afternoon of Tuesday, June 20th. On Wednesday afternoon, June 21st, members and their families may go for a sail in launches down the Shrewsbury river, and on Wednesday evening, from 8.30 P. M., to 11 P. M., a high-class vaudeville and smoker will be given.

Hon. C. A. Francis, mayor of the city, will welcome the members and their families to Long Branch. The invocation will be by the Rev. Elliott White.

COMMITTEE OF ARRANGEMENTS,  
Scudder J. Woolley, *Chairman.*

### PERSONAL.

Dr. Frank C. Henry, member of the assembly, has been appointed health officer of the port of Perth Amboy.

Dr. Horace C. Cory, of Newark, was operated on for appendicitis by Dr. John F. Erdmann, of New York, at St. Michael's Hospital, on May 13th.

### DELAWARE WOMAN GAVE BIRTH TO SEVEN CHILDREN IN THREE YEARS.

Mrs. Uriah Bailey, the seventeen-year-old wife of a mechanic residing at Laurel, Del., presented her husband eight months ago with twins. Dr. Andrew Fleetwood was called in yesterday and soon after startled the husband by saying: "Here are three more young Baileys." The youngsters were a little premature, and, though well-formed and seemingly perfect, soon after died. Mrs. Bailey is a frail little woman, not weighing over 115 pounds, and the father looks nothing more than a mere boy, smooth-faced and much below the medium-seized man.

Dr. Fleetwood says a year previous to the twins Mrs. Bailey gave birth to two other children, making seven within three years.

### A PARTIAL LIST OF MEMBERS OF DR. WIGGIN'S PARTY.

To the meeting of the American Medical Association.

Dr. and Mrs. Dexter D. Ashley; Dr. J. Riddle Goffe, president of the N. Y. S. Medical Association; Dr. and Mrs. John T. Nagle and sister-in-law; Dr. Thomas F. Reilly, Dr. E. Franklin Smith, Dr. and Mrs. J. P. Tuttle, Dr. and Mrs. Wisner R. Townsend, the Masters Townsend, Dr. Frederick Holme Wiggin and son, New York.

Dr. and Mrs. L. Grant Baldwin, Dr. William Francis Campbell, Borough of Brooklyn, N. Y.

Dr. Mary E. Dunning, Dr. and Mrs. C. E. Townsend, Newburg, N. Y.

Dr. Eugene Baker, Ithaca, N. Y.

Dr. J. Orley Stranahan, Rome, N. Y.

Dr. C. E. Cuddeback, Port Jervis, N. Y.

Mr. and Mrs. Charles Landell, Dr. and Mrs. Forman, Bayonne, N. J.

Dr. and Mrs. J. Fewsmith, Miss Fewsmith, Messrs. G. Gilbert and Alan H. Brown, Newark, N. J.

Dr. and Mrs. Hollingshead, Mrs. Price, Miss Allan, Pemberton, N. J.

Dr. and Mrs. Marcus F. Squier, Harrison, N. J.

Dr. Frank W. Stevens, Bridgeport, Conn.

Dr. and Mrs. William Witter, Norwich, Conn.

Dr. and Mrs. C. L. Stevens, Athens, Pa.

Dr. E. W. Evans, Easton, Pa.

Dr. and Mrs. J. G. Zern, Lehigh, Pa.

Dr. J. V. Kelly, Dr. M. H. Russell, Dr. D. D. Custer, Dr. H. K. Regar, Dr. John Welsh Crosby, Philadelphia, Pa.

Dr. and Mrs. J. W. Ellenberger, Mr. Ellenberger, Jr., Harrisburg, Pa.

Dr. and Mrs. I. C. Gable, Mr. Gable, Jr., Dr. and Mrs. Holtzapple, Miss Holtzapple, York, Pa.

Mr. and Mrs. Glatfelter, Mr. Glatfelter, Jr., Spring Grove, Pa.

Dr. and Mrs. S. L. Wiggin, McKeesport, Pa.

Dr. and Mrs. C. F. Kistler, and niece, Wilkesbarre, Pa.

Dr. and Mrs. Frederick Baldwin, Danvers, Mass.

Dr. F. H. Thompson and friend, Fitchburg, Mass.

The Fifth Public Meeting, 1904-1905, of the Newark Conference of Charities and Correction, was held at the Free Public Library, Thursday evening, April 27th, 1905, at 8 o'clock.

Topic: "Tuberculosis, a Preventable Disease."

Dr. S. A. Knopf, of New York City made the principal address.

Professor Livingston Farrand, Secretary of the National Association for the Study and Prevention of Tuberculosis, made a brief statement of the aims of that organization.

A representative of the Newark Board of Health presented the work done by the City of Newark to prevent the spread of tuberculosis.

New York Cerebro-Spinal Meningitis Commission.—At a meeting of the cerebro-spinal meningitis commission on May 5, attention was called to the benefit derived from the free admission of sunlight into the sick room. It was admitted that the best treatment for the disease was plenty of fresh air. From all experience no benefit had been derived from the use of any serum or antitoxin. Further experiments will be carried out with these agents.

### THE NEW HARVARD MEDICAL SCHOOL.

The work upon the new buildings was begun in September, 1903, and they will be completed by the close of the present year, so that they will be ready for occupancy by the fall term of 1906. Altogether, two millions of dollars is being spent on the new buildings. Special care has been taken that the wings of the present buildings may be capable of facile extension, so that ultimately the various departments may have, if desired, three times the working capacity that is now being provided for. This is, perhaps, the first time that this much far-sightedness has been exhibited in the erection of buildings for any educational purpose, and it is refreshing to think of it as part of a medical college plan. As might be expected from the well-known thoroughness of Harvard's methods, the arrangements for the practical and laboratory teaching of medicine are to be as perfect as the ideas of the present generation can well make them. In this matter, expense has been no object, and the one idea has always been to secure what was best and most suitable.

The hospital connections that will form so important an auxiliary in the teaching of medicine, will, undoubtedly, be the most interesting feature of the new medical school. When the grounds for the new site were purchased, enough land was secured to permit the erection of a number of hospital buildings adjacent to the medical school structures. Appreciating the advantages that would surely accrue from adjacency to and more or less intimate connection with the Harvard Medical School, the trustees of a number of Boston hospital foundations have availed themselves of the opportunity offered by the University, and have secured building sites in the vicinity of the medical school. These trustees have signified the intention of giving every advantage possible in the carrying on of the humane work of medical teaching. Among the most important of these hospital foundations is the new Brigham Hospital, with a fund of about \$5,000,000. The trustees of this fund have signified their intention of purchasing 10 acres of the Harvard Medical School grounds as a site for their proposed building. This is not to interfere with the absolute independence of the hospital, and there is to be no formal alliance. It is rightly considered, however, that co-operation will mean much to the new hospital, as well as to the Harvard Medical School. The new Boston Children's Hospital has a location on the grounds just west of the medical school buildings, and the Thomas Morgan Rotch Infants' Hospital is to have a site on the grounds. Not far away, the new building of the Samaritan Hospital is now well on in course of construction, having been commenced last May. With all of these hospitals in the neighborhood, presided over by trustees who are in thorough sympathy, the Harvard Medical School will have the best hospital connections of any medical school in America.—*American Medicine*.

### HOSPITAL EXAMINATIONS.

An examination for the position of resident physician in the Atlantic City Hospital was held in the hospital building, May 6.

Examination for two positions on the resident staff of St. Joseph's Hospital, Paterson, was held at the hospital April 11.



## ANOTHER TRIP TO THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Doctor L. M. Halsey is arranging a trip to California and Portland, Oregon, to leave Philadelphia June 24th, going to Denver without stop. At Denver the party will remain one day. Another day will be given to the celebrated trip around the Georgetown Loop, a visit to Manitou, the Garden of the Gods, Glenmore and Colorado Springs.

A stop of one day will be made at Salt Lake City. Thence the journey will be made direct to Los Angeles. Five days will be spent in seeing California, and then on to Portland. After the adjournment of the American Medical Association, the party will visit Tacoma and Seattle and then start homeward over the famous Canadian Pacific, stopping one day at Barff in the Canadian Rockies.

The cost of the proposed trip will be about \$125.00. This will include railroad and Pullman transportation both ways.

If eighteen travelers are booked a special car will be assigned to them for the trip.

Address all inquiries to Dr. Luther M. Halsey, Williamstown, N. J.

## DOCTORS.

"No title is better than that which it represents. 'Doctor' as applied to medical men does not convey the sense of dignity or learning to any remarkable degree, because the title is exploited by a dozen or more classes of men who possess neither the one nor the other." Thus remarks the *Pharmaceutical Era*, commenting on the letter of a correspondent who would add to the list of "doctors" by conferring the title on pharmacists.

## PHILANTHROPY AND BUSINESS.

It has been shown by a number of writers that sanitary tenements may be constructed on a financial basis which will pay 4, 5 or 6 per cent. on the investment. These will be well lighted and ventilated, and may be rented at \$7.00 or \$8.00 a month for three or four rooms. It is stated that a company has been formed in Washington, D. C., to arrange tenements on this plan as a business enterprise, but having with it the very desirable and charitable feature that it is a work of great benefit to those who have to live in the slums. If the project is successful it ought to be extended into other cities, because it means a combination of business investment with philanthropy and civic improvement.

Drs. Paul L. Cort, Trenton, and Paul Traub, Bordentown, have been elected to the staff of Mercer Hospital, Trenton.

Dr. Daniel Jenifer, Loch Raven, Md., has been appointed resident physician at the Atlantic City Hospital.

The census of 1900 placed the value of "patent medicines" produced in this country annually at \$59,611,335. As the average profit is about one-third, this means that the sum paid over the retail druggists' counters, taking no account of increased consumption in the last four years, is every man, woman and child in the country. something like \$80,000,000 a year, about \$1 for

## MOSQUITOES AND MALARIA.

TRENTON, May 4.—Circular No. 112 on "The Restriction of the Spread of Malaria," has just been issued by the State Board of Health. In its introduction it says:

"The average number of deaths caused by malarial affections in New Jersey during the past twenty-six years has been 182, and for the years 1897-1892 the average number of deaths in the State from malaria was 256. The diminishing mortality from this cause has been very marked during the past seven years (1898, 82; 1899, 96; 1900, 84; 1901, 50; 1902, 36; 1903, 40; 1904, 43), and the remarkable falling off in deaths for the past few years leaves no doubt that some unusual influence has produced this improvement.

"No new methods of treatment have recently been introduced, and only one explanation of the decrease in the prevalence of this disease has been suggested, viz., the recognition of the cause of the malady and the application of rational measures to reduce the extent of mosquito-breeding areas.

"Individuals can do much toward defending themselves against this disease by protecting themselves from the bites of mosquitoes at night and during the evenings by the use of screens and canopies, and, as the anopheles rarely flies far from breeding places, almost all communities can free their localities from the carriers of the infection by drainage and by filling in wet places. The efforts of the local Boards of Health to free their various districts of breeding places for the anopheles should be systematic and continuous."

Malaria, the report announces, is conveyed to human beings only through the agency of the anopheles mosquito and the prevention of the disease, it states, can best be accomplished by ridding the locality of stagnant water, which is the breeding place of the insects. Speaking further on the subject, it gives this information:

"Pools and swampy places should be drained or filled; gutters and ditches should be freed from all standing water; old tin cans should be removed; rain-water barrels and all other receptacles for water should be kept closely covered with fine wire netting. When drainage is depended upon, the work should be thoroughly done, so that no holes or hollows are left, for even footprints left on soft ground may hold water enough to breed hundreds of mosquitoes. Encouragement for careful and continuous efforts to prevent the local breeding of mosquitoes is found in the fact that the insects do not, as a rule, fly far, and therefore almost every locality breeds its own mosquitoes.

The number of papers announced in the programs of State Society sessions is annually increasing. Thus, for the session of the Medical Association of Georgia, held this week at Atlanta, the titles of 66 papers are announced. For the Medical Association of Texas, to be held next week, 119 titles of papers are given in the official program. Other State Societies show like large numbers of titles in their respective official announcements.

"Dr. — has already leased an office and has a shingle out ready for the practice of his new profession. Dr. — recently received a diploma for the practice of spinology \* \* \* \*. He has no competition in his particular branch of practice."—*Duluth News-Tribune*, Oct. 13, 1904.

















