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ORIGINAL ARTICLES.

A PAPER INTRODUCTORY TO A DISCUSSION ON THE TREATMENT OF TUBERCULAR DISEASE, MEDICAL AND SURGICAL.

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Read before the Kings County Medical Association, October 14, 1890.

(*Concluded from page 799, Dec., '90.*)

"There is nothing new under the sun" is an adage which, if not positively true in every detail, is nevertheless the expression of a great thought along the line of another and similar one, that "history repeats itself." Medical thought and discussion run in cycles—I had almost said in *circles*—which, after a round of apparently unique modes of expression and experimentation, returns, in some way, to the thought and expression of the fathers. A new school—as of homœopathy, for instance—arises and obtains popularity through vilification of regular medicine, particularly in its use of calomel, etc., and comes back treating almost every conceivable kind of disease with some form of "mercurials." Need it be thought strange, then, if, after the diligent search for a germicide which shall best uncover and destroy the bacillus tuberculosis, it shall be found in the old vilified friend of the ages back, hydrargyrum chloridum?

You will not understand me, of course, to make the assertion that we have the long-looked-for bacillicide in the chlorides of mercury, and yet the treatment of tuberculosis by mercurials and remedies of a like nature is certainly worthy of more serious consideration. It has been fully demonstrated that an agent may be aseptic and antiseptic, that it may retard the growth or even completely destroy the life of a germ or its spore when permitted an immediate contact, as in a culture-medium, and yet have no perceptible effect when introduced into the animal organism suffering from disease caused apparently by this same microscopic germ, even though the amount of the germicide be introduced into the organism in the full proportion needed for a complete destruction in a culture-medium. Something further seems to be required; and it is fair to suppose that the germicide fails because it fails of immediate contact with the germ. A softening, uncovering process seems to be needful. What better prospect of obtaining this than through the specific action of the preparations of mercury, particularly the chlorides of mercury, as also the preparations of gold, ammonium, and other agents which produce ptyalism?

If we go back to our old books, or if some of us go back to our old experience of even thirty-five and forty years ago, when so much reliance was placed upon the use of mercury to salivation, we must come to one of two conclusions, viz., that either there is some great curative power in the use of mercury in that way, particularly in many inflammatory diseases, or the practitioners of medicine in the early part of the century, and before, were unwise and untrustworthy men! The *truth is*, probably, that no age of the world's history has produced men of greater learning or of more profound wisdom or of keener scientific research than the members of the medical profession just referred to. In "Elliotson's Practice," published in London and republished in Philadelphia about 1840, we read, under the head of treatment for continued fever: "In many of these fevers it is of the greatest use to give mercury; especially if there be a degree of inflammation, and great foulness of the tongue. If given in small, but repeated doses, it will answer the purposes of clearing out the intestines. It not only purges the patient, but, by degrees, causes the tongue and the interior of the mouth to become moist; and when that is effected, the patient is almost sure to be better." [1]

Prof. Watson (also of London), the renowned and scholarly lecturer, of about the same period and later, says, in speaking of the treatment of pneumonia in the second stage: "Mercury is worthy of confidence. . . . The object of giving it is to make the gums tender; and it is

[1] Elliotson's Practice, p. 323.

expedient to do this as speedily as may be. Small doses of calomel, repeated at short intervals—a grain every hour or two—offers the most certain way of accomplishing our object. . . . If the internal use of mercury be any how contra-indicated, or if it appear slow in producing its specific effect, the linimentum hydrargyri may be rubbed in, or the strong mercurial ointment. Many persons, I am persuaded, are saved by treatment of this kind, pushed to slight ptyalism."[2]

Dr. Geo. B. Wood, of Philadelphia, so long Professor of the Theory and Practice of Medicine in the University of Pennsylvania, in speaking of the treatment of rheumatism, after referring to the use of venesection and the administration of tartar emetic, Dover's powder, guaiac, and some other medicines, says: "Should these remedies have failed to make the desired impression at the end of one or at the most two weeks, or should the disease assume in any respect a threatening character, it will be advisable to employ calomel, with a view to its alterative influence. . . . I have no doubt whatever of the frequently controlling influence of mercury over acute rheumatism at this stage. . . . There is generally a speedy abatement of the symptoms on the occurrence of soreness of the gums."[3]

But I need not quote further; all who are familiar with the literature of forty and fifty years ago know that to produce more or less complete salivation was the end sought for in the treatment of very many diseases. Many a time, when I have been permitted, as a student of medicine, to visit patients with my honored preceptor,[4] have I seen him watch eagerly for the first symptoms of ptyalism, feeling the tongue and gums and carefully smelling the breath, and on the first approach of the specific mercurial effect confidently predict that the patient would be better at the next visit; and many a time have I seen the prediction come true. Unfortunately the evil effects of the mercurial treatment of disease became so apparent to the physician and the public, that it gradually fell into disuse, and other things were substituted therefor. The treatment of disease is, perhaps, conducted *now* more *scientifically* than it was *then;* whether more successfully or not, I am not here to say: but that there is great power for good in the use of the mercurials cannot be successfully controverted. And if used with the light of the present knowledge of the cause of disease, and of their softening, uncovering, and germicidal power, I cannot doubt that a return to the preparations of mercury, in a modified form, and with a more complete understanding of the manner in which they accomplish the *good* of which they are capable, with, at the same time, a better knowledge of the way to

[2] Watson's Practice, p. 635.

[3] Wood's Practice, vol. ii., p. 484.

[4] Dr. Wm. B. Gould, of Lockport, N. Y.

counteract their evil effects, will be hailed as a *forward* movement in the treatment of disease; and I make bold to predict that, when medical men shall more fully understand the nature, power, and manner of development of disease from disease-germs, and the power and *modus operandi* of mercurials and other *like* agents upon these germs, then shall the diseases so much dreaded heretofore, because so unmanageable, including pulmonary phthisis, be counted not only as *preventable*, but as *curable* maladies.

In discussing the treatment of tuberculosis as at present indicated, we may well consider it under three heads, to wit: *Preventive, curative, and palliative;* and, under the head of prevention, hygiene, food, and medicine stand important in the relation named.

A proper and imperative regard to the laws of health in the training and development of children with a consumptive tendency is of paramount importance. The best climate available, a proper diet regimen, dress, exercise, etc., should be insisted upon, that the development of the individual, from childhood up, may be most complete and perfect. An encouragement of the vital forces to the fullest extent, so as to overcome the evil, inherited tendencies, so as to prevent a degeneracy of system that will develop or produce in the system a "soil" adapted to the growth of germ-life, is most important. Next to this it is of the greatest consequence that the food taken be simple, properly cooked or prepared, easily digested, of a nourishing character, and free from disease-germs, and especially free from the bacillus tuberculosis.

With correct hygiene and correct and properly prepared food, little need be said of medicine as a preventive of tuberculosis, other than as to the chemicals, disinfectants, etc., necessary to cleanse infected dwellings, beds and bedding, sputa, spit-cups, etc., and the simple remedies needed to bring quickly under control the accidental attacks of rhinitis, pharyngitis, laryngitis, and bronchitis, to which those inclined to phthisis are so often subject. Then, in addition, the surgical treatment of chronic joint-diseases, cold abscesses, many glandular enlargements, some cases of chronic cystitis, chronic diseases of the testicles and of the ovaries, and all other diseases having a tubercular origin, have a direct bearing upon the subject of preventing general tuberculosis, and especially of preventing tubercular consumption.

The matter of prevention by inoculation is under consideration and experimentation by Drs. Groucher, Koch, and others; but while encouragement has been given, no positive results have as yet been promulgated.

Dr. John G. Johnson, of this city, in his admirable paper read before the Medical Society of the County of Kings some months ago, on "Disease-Germs and Disinfectants," said: "Consumption carries off

one-third of all people who die between fifteen and twenty-five years of age. Formerly it was taught that this was a hereditary disease; its origin was unknown. Now all intelligent persons are aware that it is produced by a disease-germ, the bacillus tuberculosis; that this disease is common to the cow and ox, that are used for our food; that cooking meat rare, with blood gravy, does not destroy the germs, but that we take them alive into our system. Foreign governments are moving for the protection of their people. In Berlin every animal is slaughtered at the public abattoir; . . . the particulars are entered in a ledger, and specimens are sent to the microscopist, . . . and the report, one tubercular, eight trichinæ, eleven cancer, or all healthy, as the case may be, . . . and the order to destroy the animal, as unfit for food, or to certify it as healthy, is issued." "Careful inspection of the cows kept for milk, in Dutchess and Westchester Counties, shows that you can hardly find a cow over nine years of age that is not consumptive; and on those farms, where distillery swill and brewers' grains are fed to the milch-cows, their life is only a year to a year and a half in one of those stables before they are so far gone with consumption that they are slaughtered for the New York market, and those parts of the animal that they think will not pass the inspection are sold for the manufacture of bologna-sausages. Where tubercular deposits are found in the cow's udders, the bacilli are always found in the milk. Careful examination of children who have died of marasmus, in many cases, shows the bacilli tuberculosis in the absorbents leading from the intestine and in the mesenteric glands, and in no other part of the body, showing conclusively that the milk furnished these children after weaning was the cause of their death."[5]

Shall we not advise the people, then, under these circumstances, to have their meat *well* cooked and their milk sterilized?

(I had intended in this connection to have made somewhat extensive quotations from authors, but time and space will permit only brief extracts.)

Dr. Karl Hirschberger, of the Munich Pathological Institute, has made a series of experiments upon cows in relation to the infection from milk, and, on the strength of his experiments, he states that the danger of infection from milk of tuberculous cows does not only exist, but is very great, being found in fifty-five per cent. of all cases examined.[6]

Abbott, in his experiments on milk as a culture-medium for the tubercle bacillus, says: "The conclusion, then, from these experiments, in connection with results from other observers, is that the milk

[5] Brooklyn Medical Journal, April, 1890, p. 208.

[6] London Lancet, August, 1890.

of these cattle not only may contain the tubercle bacillus, but that the organism retains its vitality, and may even increase and multiply in numbers, under favorable conditions.

"With few exceptions, in this country, the use of uncooked milk is the rule, and there can hardly be any doubt that a certain amount of infection takes place in this way. . . . The sterilization of milk for domestic use is a simple matter, and should be insisted upon.' [7]

There can be very little question of the propriety of instituting measures, public and private, for the prevention of the spread of tuberculosis through the discharges from tuberculous joints, abscesses, and, more particularly, through the sputum of the sick of pulmonary phthisis. In this way hospitals, dwelling-houses, street-cars, and other public places and conveyances become breeders of disease and help to enlarge the death-roll from consumption. Communities, as at present educated, will hardly consent to have their loved ones, who are falling into "decline," quarantined or even denied free access to public conveyances, theatres, concerts, churches, etc.; and yet these and even more rigid measures must be adopted if the fatal malady, consumption, is to be fully prevented, stamped out.

There is a growing sentiment of the possibility of leprosy being itself of tuberculous origin, and yet nobody, except the physician, thinks otherwise than that leprosy ought to be carefully put under quarantine; and it is now, as of olden time, considered proper that a leper, on the approach of well people, should cry out: "Unclean! unclean!" And yet it is quite possible, that, if the discharges and sputa of the tuberculous sick can be entirely put under control and destroyed, the object —prevention of contamination—can be attained.

In the paper read before the American Medical Association, by Dr. Wilson, of Philadelphia, to which we have before referred, he says: "Reduced to its simplest form, the problem of prophylaxis against the spread of the tuberculous diseases among human beings consists in the proper care of the fresh expectoration of consumptives. Not dangerous when moist, it becomes, when dried, a fruitful—in fact, the chief—means of the spread of the disease, from the lesions of which alone it is derived.

"The sputum of those suffering from pulmonary phthisis should, under all circumstances, be collected in suitable vessels, and kept in a moist condition, until it is either destroyed by fire or discharged into sewers under such conditions as will insure its conveyance to places where it is not likely to become a source of danger. Spitting upon the floor, or in the street, or into handkerchiefs, or towels should in all

[7] Johns Hopkins Bulletin, May, 1890.

instances be avoided. Patients should be required not only to use in their rooms and in the house a suitable cuspidor, but to carry with them pocket spit-cups in which to collect the discharge."[8]

A German journal,[9] giving the proceedings of a late meeting of the German Public Sanitation Association, quotes Prof. Heller as saying that he believes "tuberculosis is to be regarded as the most important of all diseases, in that it furnishes the largest mortality of all causes of death. . . . He estimates the number of tubercle bacilli in the sputum of a tubercular subject at 1,000,000 per cubic centimetre; in a single expectoration, on an average, 3,000,000 bacilli are discharged. The control, he says, of tuberculosis should be urged most vigorously by state and community; such warfare promises a very important diminution, if not complete extermination, of the disease. . . . As measures to be taken against the spread of tuberculosis, mention may be made of the disinfection of the sputum in schools; . . . the erection of disinfecting stations throughout the community, with the instruction of people regarding the technique of disinfection; repeated disinfection of dwellings and of the utensils of tubercular invalids; the enforced disinfection of dwellings and effects of those who have died from tuberculosis; attention to the health of wet-nurses, midwives, and attendants upon the sick; the supervision of those who are engaged in the preparation and sale of food-stuffs, with the exclusion from such employments of coughers; the careful hygiene of hospitals, prisons, orphan asylums, and all similar institutions; the instruction of the populace; the strict enforcement of meat inspection; attention to breeding of tubercular animals; the inspection by veterinaries of the stabling where tubercular animals are found; the destruction of all animals found to be tubercular, with at least partial compensation to owners; and the inspection of milk-depots." The too frequent custom of ladies saluting one another with a kiss should be discouraged, as unsanitary.

Regarding the subject of prevention of general tuberculosis (including phthisis pulmonalis) through means of surgery, both space and time admonish me that I must be brief, more particularly as I had the honor to present my views thereon somewhat in detail before the Fifth District Branch of the State Association, at a meeting in Brooklyn some two years ago.[10] I can only suggest that all cold abscesses should be early opened and cleansed, tuberculous joints should be incised, exsected, or amputated, care being taken to remove all tubercular matter if possible, and thorough aseption, antiseption, and disinfection practised. Tuberculous glands should be early removed, etc., when practicable.

[8] Journal of the American Medical Association, March 22, 1890, p. 404.

[9] Wiener med. Wochenschrift.

[10] See Gaillard's Medical Journal, August, 1888.

Partial or complete laryngectomy may be mentioned as both preventive and curative treatment of tuberculosis; so also the amputation of the lung apex and the incision of and cleansing of lung-abscesses.

Surgeons differ so materially, however, upon the subject of treatment of diseased joints, and especially in regard to these operations as means of prevention of general tuberculosis, that it is needful to be cautious in recommending this kind of preventive practice, as it is thought by some that the practice precipitates what it is sought to prevent. Dr. Marsh, Professor of Surgery at the Royal College, England, in an extensive paper on "The Principle and Results of Excision in Tubercular Disease of Joints,"[11] says, after quoting statistics from Craft and Wright: "From these figures it appears that, although the possibility of general infection from a tubercular joint is a distinct element of danger, the risk is so small that it cannot be regarded as affording any substantial support to the practice of early excision."

The line between preventive and curative measures is indistinct, especially as regards surgical methods. The removal of tubercular glands, if resorted to early, may be deemed both preventive and curative; so also the surgical treatment of morbus coxarius, if successful, is both curative as relates to the hip-joint, and preventive of general tuberculosis.

While tubercular phthisis, or pulmonary consumption, usually passes on to a fatal termination, it is yet unfair to speak of it as an incurable disease, as was so generally the habit a few years ago, and still is in some quarters. Very few physicians, who have been even a brief time in practice, but have met with cases of phthisis which have recovered; some of these cases of recovery have been mild attacks, and such as disbelievers in the possibility of cure may easily bring themselves to consider examples of false diagnosis. There are cases, however, which some of us can call to mind, in which the symptoms were so pronounced as to exclude the possibility of a wrong diagnosis. It is proper, then, to speak of even "phthisis pulmonalis" as a curable disease, and refer to its treatment under the head of curative measures.

The hospital for indigent consumptives, in this city, called the "Home for Consumptives," in the last annual report of their physicians, signed by E. Reynolds, M.D., as chairman, I find it stated that the total number of patients treated in the department indicated was 120: of these 33 died, 12 were discharged *cured*, 11 improved, 8 not suitable for the Home, 12 with *little* or no improvement of the lungs, 44 remaining in the Home.

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[11] Braithwaite's Retrospect, January, 1890, p. 97. From the Lancet.

This remarkably good showing led me to visit the Home, of which I knew something before. Through the kindness of Dr. W. N. Belcher I was made more conversant with the plan and workings of the hospital and the nature of the treatment of the inmates. Their vapor-inhalations are produced by the compressed-air system, and have been arranged under the direction of Dr. Reynolds, who has kindly written me an account of their treatment and general management, from which I gladly quote—the more readily because of their pronounced good results, even among a class of patients taken from among the very poor, of whom many are in the last stage of the disease when admitted to the institution, and because Dr. Reynolds' management gives the best idea of the most prevalent plan of treatment *just now* in this vicinity of New York and Brooklyn. Dr. Reynolds says:

"In our treatment we depend largely upon the inhalation of vapor, medicated with beechwood, creasote, bichloride or iodide of mercury, and sprays of various substances for the bronchial irritations. Every morning, those able to do so, assemble in the room set apart for the purpose, and use the inhalers for ten minutes; this is usually repeated in the afternoon. In addition, the room is filled with a 1 to 1000 bichloride vapor. This is done for the protection of nurses and others. To allay cough, we use freely a pill containing two drops of beechwood, creasote, anodynes, and expectorants. We endeavor to get as much creasote in the system as possible, and in the form of our pill it is absorbed so gradually that a large quantity can be taken in the twenty-four hours; cod-liver oil, a liberal diet, etc. Stimulants are used sparingly.

"The inmates are urged to remain in the open air; and as soon as the grounds are in a proper state, we shall insist upon this.

"This has been our general line of treatment. Inhalation of peroxide of hydrogen appeared to induce hæmorrhages. Orexin, to increase the appetite, was given a thorough trial, without the slightest benefit. Bergeon's treatment proved a total failure, and the excitement and exertion attending its use was harmful.

"Hand-spittoons, containing bichloride solution, are carried about by the patients. We aim to thoroughly disinfect both the inside and outside of our charges. So far the attendants have remained as healthy and in as good condition as those in other institutions, although their work is much more wearing.

"The majority of those admitted [to the Home for treatment] are in the last stages of disease; some die within twenty-four hours, and in but few cases can a hopeful prognosis be given. But with this unfavorable material, I think we have every reason to believe that the inhalation-treatment has given the most satisfactory results yet attained. Cough

and expectoration lessened, sputum not so offensive, hæmorrhages and night-sweats not so frequent as formerly, etc."[12]

The treatment by intra-pulmonary injections, by the pneumatic cabinet, by the hot-air method, also by pneumotomy, and the different systems of draining have their advocates, but seem to be gradually falling into disuse, but will no doubt be to some extent revived, particularly the surgical measures, which do not seem to have been fairly put to a full test.

Creasote, both internally and by inhalation, seems to be the favorite medicine just at present, and no doubt has been beneficial. "The experiments of M. Guthmann demonstrate that the development of the bacillus tuberculosis is hindered when creasote is present in the blood in the proportion of 1 to 4000. This condition may be maintained by exhibiting fifteen grains of creasote a day."[13] It is said that guaicol may be given in Malaga or Tokay wine with less irritative effect than creasote, and with the same result.

A few years ago I was in the habit of giving iodoform internally for phthisis, seemingly with good effect, in doses of one grain three times a day. It seems pretty well established that iodoform, directly applied to tubercular abscesses and ulcers, proves beneficial and somewhat destructive to the tubercular germ. My friend, Dr. Pilcher, of the New York Post-Graduate School, and of the Methodist Hospital, as well, in the columns of the *Annals of Surgery* (of which he is editor), says: "The beneficial effects of iodoform, when applied directly to tubercular tissues, has been widely accepted." And then, in an article pretty well covering the subject, giving English, French, and German quotations, and after giving clinical examples of tubercular ulcers, which had come under his own observation, that had received treatments of a different nature, without iodoform and with, he says: "The difference in the course of these two ulcers was so marked that it could not escape the observation of the most casual observer. The question as to the cause of this difference is singularly free from difficulty. The hygienic and constitutional and local conditions of these ulcers were the same for each, and unusually good for both. Both were treated at the same time by the same surgeon. The difference in their course is unmistakably due to the difference in the treatment pursued. In this case certainly a most favorable influence upon the tubercular process was exerted by the iodoform applications."[14]

In the recent issue of "Braithwaite's Retrospect"[15] is an excerpt

[12] Extract from letter from E. Reynolds, M.D., to author.

[13] Deutsche med. Wochenschrift.

[14] Prof. L. S. Pilcher, in Annals of Surgery, September, 1889, p. 161.

[15] Braithwaite's Retrospect, July, 1890, p. 81.

from a paper published in the *Glasgow Medical Journal*, by J. Walker Downie, M.B., Surgeon Western Infirmary, Glasgow, in which he urges the use of intra-laryngeal injections for laryngeal phthisis. After using different articles of medical material, he finally gives preference to menthol and creasote, and gives very encouraging accounts of the result. He says the patient, soon after the injection, feels a sensation of warmth and comfort, is relieved of the irritation and oppression and tendency to cough, and, when administered at night, usually secures rest for the night without the usual anodynes.

Dr. Jno. A. Robinson, of Chicago, Ill., gives, in the August number of the *Dietetic Gazette*, a valuable plan for the management of the nourishment of the consumptive, and says truly that "the manager of the cuisine holds the key to success in benefiting consumptives."

Dr. J. Solis Cohen, Professor of Practice of Medicine, of Philadelphia, in a paper read before the American Medical Association, objects to the germ-theory of consumption, or rather to the general conclusions drawn therefrom, and says: "That condition which is commonly alluded to by writers, holding the current view, as a 'predisposition,' 'want of immunity,' 'lack of resisting power,' 'presence of culture-medium,' etc., is in this paper regarded as the disease itself—the consumption, the phthisis—against which the efforts of the physician are to be directed; and the bacillary features—the tuberculosis, if you will—are regarded as the epiphenomena. . . . The disease is one of malnutrition, of wasting. The remedy is nutrition, feeding."[10] Then he follows with a great many good things and a great many very important things, which somehow seem to have been of late overlooked. He says, in brief: "Diet is of two kinds—alimentary and respiratory. Air is food equally with meat and drink. Proper regulation of both is absolutely necessary. . . . The frequency of taking food should not be left to the whims or discretion of the patient. Everything should be accurately prescribed, not only as to quality and quantity of food, but also as to the exact times of eating. . . . We may outline an ordinary routine, susceptible of modification with the season and according to the individual taste or circumstances.

"The patient should drink a pint of hot water on awakening in the morning, and a little later take a glass of milk-punch with a tablespoonful of peptonoids. An hour or so after this follows breakfast, consisting of rare broiled beefsteak, mutton-chops, broiled fish, or eggs boiled or poached, with coffee or chocolate if desired, milk, sliced tomatoes or other seasonable vegetable, a moderate amount of bread, with a great

[10] Food in the Treatment of Consumption, etc. Journal American Medical Association, February, 1890, p. 186.

deal of butter. If much desired, a dish of gruel or porridge, preferably cracked wheat, may be allowed.

"Two or three hours later, kumyss, or soup, or broth strengthened with beef peptonoids, milk, butter and bread, celery, and a salad of greens follow. At one or two o'clock a substantial dinner is eaten, of which bouillon, with or without beef peptonoids, is the first item, and rare roast-beef the principal dish, the meal consisting, in addition, of the allowable vegetables, especially the greens; and, when possible, a glass of Burgundy or other generous red wine, or good wine of coca, or even a glass or two of beer, is drunk during the meal. Fruits are the only possible dessert. Dinner should, in many cases, be preceded by the drinking of hot water (half a pint to a pint), half an hour to an hour before eating; hot lemonade is sometimes more agreeable. At three or four o'clock comes kumyss, or cream, or milk-punch with peptonoids, or malt extract; at six or seven, supper of a character similar to the breakfast; at nine, or at latest ten o'clock, bed-time, the patient drinks cream with cocoa, coca wine, or milk, and liquid peptonoids, with or without cocoa; while coca wine, or milk, or cream, with or without alcohol and peptonoids, is placed within easy reach for use on waking during the night; cold water may be taken at suitable intervals between meals, never with meals."

I have quoted this *menu* of Dr. Solis Cohen in full, that I may do him justice, and that we may get his idea of treatment by "overfeeding," "cramming." It may be a question whether some of us would like to take the responsibility of advising alcoholic stimulants to such an extent; still, with the amount of food given, the alcoholics could hardly do harm in their usual way, and who knows but they might sterilize the animal liquids, and so cause them to become bad culture-media, and thus make Dr. Solis Cohen a bacillus-destroyer unwittingly.

Prof. Cohen's "second digestion," or the *respiratory treatment*, is, we believe, of the utmost importance, and with his apparatus to carry out the plan of lung-calisthenics and lung-ventilation, with which I suppose you are all familiar, one cannot doubt great good is to be done, and it is more than likely that, if we learn again these old lessons of consumptive-treatment which this Philadelphia teacher inculcates, they may be found useful and of great value to our patients, even if the good news, which we now hope very shortly to hear from the Koch-Berlin laboratory, shall come to us in a proclamation of an unfailing destructive agent for the Koch bacillus tuberculosis.

Rumor seems to point to the cyanide of gold as the coming "medicine," and, as another has recently said: "If Dr. Robert Koch shall succeed in preventing and combating and arresting tuberculosis in man,

as he claims to have done in guinea-pigs, he will surely have done enough for one lifetime."

A few words regarding my own methods of treatment of pulmonary tuberculosis, and I am done.

I place great reliance upon inhalation; but it is inhalation of *dry* vapors—vapors, usually, of solids (powders), vaporized by heat (dry heat).

The device used by me is, in effect, simply a reduced old-fashioned portable heater.

An inside sheet-iron cylinder over the heat-generator, upon which I place my medicament, and an outside cylinder, also of sheet-iron, but covered with zinc ("galvanized"), to prevent too rapid loss of heat; the outside cylinder is connected by a pipe and rubber tubing, so as to be attached to a simple-valved inhaling-tube, which is used by the patient. The heat may be generated by a coal fire, kerosene oil, or gas. The medicines used in this way are generally—first, calomel, and, secondly, iodoform or creasote. Of course, I have tried many other things, but have fallen back mainly upon these: to be used every day, to every second day—to twice and once a week or less. I gradually increase the heat as the patient becomes accustomed to it, and as he bears it, to a pretty high temperature.[16] I have increased the body-temperature of the patient 2° F. at a sitting.

I am careful to instruct the patient how to do it, and then require very full and deep inspirations during the inhalation, showing him that he must make about a *third* continuous effort at inhalation to reach and disturb the residual air of the lung-apex—the usual original "nest" of the tubercle bacillus. Internally I administer iodoform, creasote, cod-liver oil, the hypophosphites, tonics, etc., and very little cough medicine. Good food as abundantly as possible, with an abundance of *out-of-door* exercise.

When they are able, physically and financially, I advise patients to arrange to live in a climate better adapted to their condition than is this, or at least to spend the latter part of the winter and the spring, until June, in a moderately warm, *dry* climate, such as may be found at the southern foot-hills of the Alleghany or the Rocky Mountains, particularly in Aiken, Asheville, or Thomasville, in the Carolinas and Georgia, and in Colorado Springs, Southern California, and Mexico or New Mexico, in the west. I never send tubercular patients to Florida or other moist southern locations. Patients convalescing from bronchitis, pneumonia, and some other acute diseases, will do well in Florida.

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[16] From 60° C. (140° F.) to 160° C. (318° F.).

Consumptive patients, in the extreme latter stages of the disease, should never be treated—or at least only with extreme caution—with what may be called *curative* remedies or measures. In nine cases out of ten they will hasten the death.

And consumptive patients in the extreme latter stages should NEVER be sent away from home to suffer and die among strangers. Palliative measures and medicines *only* are admissible then. Do what you may to nourish, soothe, and comfort the patient, and let him die in peace among his friends.

MEDICAL EXPERT TESTIMONY.

A special meeting of the Medical Society of the County of Kings was held, at the Society Rooms, 356 Bridge Street, Tuesday evening, January 14, 1890, at 8 o'clock.

The Secretary called the meeting to order, and, in the absence of the President, Vice-President and Senior Censor, announced that it would be necessary to elect a Chairman *pro tem.*

On motion of Dr. Raymond, Dr. Walter B. Chase was elected Chairman *pro tem.*

There were present, as invited guests, Judges Cullen and Bartlett.

THE CHAIR.—In behalf of the Society I desire to extend to the eminent men of the bench before us a cordial welcome.

The Secretary then read the following call for the meeting:

A special meeting of this Society will be held at the Society's Building, 356 Bridge Street, Tuesday, January 14, 1890, at 8 o'clock, to consider and discuss the following resolutions:

Whereas, The medical expert witness is at the present time held in less repute than formerly, and his opinions have lost much of their force with both judge and jury; and,

Whereas, Such diminished respect for the medical witness tends to injure the profession as a whole and to lessen its influence; and,

Whereas, It seems probable that the status of medical expert testimony may be improved by united and harmonious action of the profession looking toward that end;

RESOLVED, That it is the sense of this Society that it is derogatory to the best interest of the medical profession for any of its members to occupy in a legal trial the position of medical adviser to counsel and witness in the case.

RESOLVED, That it is the sense of this Society that the physicians who are called upon to give evidence in legal cases with reference to the existing physical condition of patients should insist, if it be possible, upon meeting in consultation the physicians to be called by the other side, so that there may be a full interchange of views before they testify.

These resolutions were offered at the May meeting by Dr. Raymond, the Society voting to postpone the consideration of them until a special meeting be called, and that representatives of the legal profession be invited to be present and participate in the discussion.

THE CHAIR.—As Dr. Raymond was the mover of these resolutions, I will ask him to open the discussion.

DR. RAYMOND.—It is a matter of deep regret that so many of the members of the Society are absent to-night, as some of the absent ones are the most qualified to speak on the subject which we have met to consider, and are the most interested in it. The small attendance is doubly a matter of regret, inasmuch as the distinguished gentlemen who are present as invited guests may think that there is but little interest felt by the medical profession in the question before us. This, I am sure, would be a mistake. The sickness which has been so prevalent during the past few weeks is sufficient to account for the absence of many of our members. Our President and Vice-President are both confined at home with the prevailing influenza, and others of our associates are prevented from being here either by their own illness or by that of their clients.

The subject which is before us to-night for consideration has been brought to the notice of the Society for the following reason: It has for some time been to me a matter of mortification and chagrin that the medical witness was held in such poor repute by the press, the members of the bar and the courts, and I was led to believe, through conversation with other physicians, that the feeling was entertained quite generally in our profession that the respect in which the medical witness was formerly held was being rapidly lessened, and that the influence exerted by him through his evidence, when on the witness-stand, was being greatly impaired. That this sentiment also existed outside the profession I had still greater reason for believing when I saw the paper read by Judge Bartlett before the New York Medico-Legal Society, which has been published in full in THE BROOKLYN MEDICAL JOURNAL. After reading this paper, the question occurred to me whether something could not be done to remedy what appeared to so many as a great evil; and when I saw in the paper referred to the statement that much had been done in England to remedy this very defect, I could see no reason why we could not accomplish a similar result here. Now, whether these resolutions cover the ground perfectly, or whether the suggestion which has been made for a remedy is the correct one, of course it is not for me to say. It would seem, however, that the first thing for this Society to do is to decide whether there is a need for reform. Is it true, as a matter of fact, that when the medical witness of to-day goes upon the witness-stand he is looked upon with suspicion, and his every word

weighed by the judge and jury with prejudice against him? That this is so in very many instances I am afraid is the fact, and physicians have no one but themselves to blame for it. It is, I think, the exception to witness a trial in which medical men are engaged, as they so frequently are, without finding it degenerating into a trial of the medical witnesses themselves; and I do not know what would be the outcome were it not that we have judges who are able to keep the opposing interests from coming into direct collision.

There is but one point endeavored to be covered by these resolutions. They are simply an entering wedge, and the object in offering them was, first, to see whether this feeling which I had, and which I found others possessed, was the feeling of the Society. If we agree upon that, if we agree that there is a necessity for improvement, whatever that improvement may be, then the next step is to seek the way to obtain it. If, however, we find there is no necessity for a change, and that these defects are temporary matters of no great importance, then there is no remedy needed, and no plan need be devised to overcome or meet them.

The resolutions convey, in succinct and complete form, my own views upon the subject, and I have nothing to add to them.

Dr. WALKER.—Has Dr. Raymond seen the resolutions adopted by the British Medical Association?

Dr. RAYMOND.—I have not, my reference was to an extract from Judge Bartlett's paper, in which he refers to the "History of the Criminal Law of England," by Sir James Fitz James Stephen. The extract reads as follows: "If medical men laid down for themselves a positive rule that they would not give evidence unless before doing so they met in consultation the medical men to be called on the other side and exchanged their views fully, so that the medical witnesses on the one side might know what was to be said by the medical witnesses on the other, they would be able to give a full and impartial account of the case which would not provoke cross-examination." He truly observes that such a practice implies a high standard of honor and professional knowledge on the part of the witnesses called to give evidence; and the suggestion would seem almost Utopian, were it not that the writer adds: "For many years this course has been invariably pursued by all the most eminent physicians and surgeons in Leeds, and the result is that in trials at Leeds the medical witnesses are hardly ever cross-examined at all, and it is by no means uncommon for them to be called on one side only." This is the best possible answer to the objection that the plan assumes a higher standard of conduct than is practical. Experience has shown that it does not, and what English medical men can bring about in Leeds, American medical men ought surely be able to accomplish

in the city of New York." This paper was read before the New York Society, but "the City of Brooklyn" can be substituted in this instance.

Dr. WALKER.—I remember reading Judge Bartlett's address, but do not remember the details of it. It seems to me that his idea is excellent, and might be carried out in England, where perhaps there is a higher professional standard than here. I do not believe it could be carried out here. From what I have seen of medical witnesses on the stand, it seems better for the medical witness sometimes to be opposed by a medical adviser on the other side—of course provided they are both honest men. Now, I have no doubt that there are medical men who go on the witness-stand, and of whom it is true that they are paid to give certain evidence, and they give it. Some time ago I was approached by a gentleman connected with a railroad accident in which one man was said to have had a hernia produced. He brought suit against the company, and gained his suit. Another man, who heard of this suit, brought a second suit, on the ground that he also had a hernia produced, and the question arose whether the second man might not have had a hernia for a length of time and not have noticed it—whether there could not have been an incipient rupture. This gentleman from the railroad, when he first came to me, said he would like to have me appear as a witness for the railroad, and wanted me to prove that this man was not injured at all by the accident, and that he had an old hernia, and had known about it for months, if not years. In the course of conversation, when I told him it was a possible thing for a man to have a rupture and not notice it for months and years—that such a thing was possible—it was evident that he did not believe that that was so, and he asked me if I had ever known of a case, and. when I told him yes, he said: "Then you won't do for me as a witness." But this gentleman had no trouble in finding a medical man to testify to suit him. This sort of obliging testimony has been given by medical men over and over again. For this reason a great deal of prejudice has arisen against medical men as expert witnesses. Again, most medical men believe—or at least those I have seen on the stand—that it is absolutely essential in talking to a jury that they should use technical terms, or, in other words, that if they do not use technical terms it would not be supposed that they had the necessary medical knowledge and skill. That, of course, to judges is known to be a fatal mistake, and that the man who goes on the stand and who uses only language rid of technical terms, and explains what he wants to in a straightforward way, and makes a statement which he can substantiate, will command the respect of judge and jury.

Another reason why medical men are sometimes put in apparently

a bad position is because so many of them do not understand that it is not always necessary to answer a question yes or no—very few knowing that when a question is put to them that might almost criminate them, that they have the right to appeal to the judge to ask the question, and that the judge would probably help the doctor if it was right to do so. Another reason is that in this State we see so many men who claim to be medical experts, and who are not experts at all. An expert is a man who is particularly qualified to testify in a certain direction. There are a number of men who testify that are not experts, and the mere fact that a young man has followed out a specialty for two or three years does not necessarily make him an expert in one or another direction. It is too easy for a young man who has been at a specialty for two or three years to come out and pose as an expert. Of course such a man must be contradicted by older medical men with larger experiences. Such a man consulting with a man of more mature thought, on the opposite side, might not be willing to come to a definite conclusion in consultation before a trial. Therefore I think, in certain instances, this consultation of the doctor upon one side with the doctor upon the other side will not always answer.

Dr. RAYMOND.—May I call attention to these resolutions, so that the points which are doubtful may be brought out here?

"*Resolved*, That it is the sense of this Society that it is derogatory to the best interests of the medical profession for any of its members to occupy in a legal trial the position of medical adviser to counsel and witness in the case."

A medical man should certainly refuse to serve both as medical adviser to counsel and as witness. To see a medical man sitting at the arm of the lawyer suggesting questions for him to put to the witness, and suggesting questions for cross-examination, and then expect that man to go on the witness-stand and be a fair and non-partisan witness, is asking too much of human nature; few men can do it; and if any man does do it, he must not be surprised if his evidence is not received with its proper weight. The point endeavored to be made is that if a man is asked to testify in a trial, let him inquire whether he is wanted as medical adviser to counsel, or as witness; he should stoutly refuse to act as both. If he is to go on the witness-stand, let him keep away from the lawyer in court, and not suggest questions. The very moment that he suggests questions he at once becomes a prejudiced witness when on the witness-stand. If he acts as expert adviser to counsel, let him keep off the witness-stand.

"*Resolved*, That it is the sense of this Society that the physicians who are called upon to give evidence in legal cases with reference to the existing physical condition of patients should insist, if it be possible, upon meeting in consultation the physicians to be called by the other side, so that there may be a full interchange of views before they testify."

This second resolution in substance demands that when a medical man is called upon to testify in a trial as to the existing physical condition of a patient, he should say to the other side, "I will go and see this patient only in the presence of the other medical expert." They could both together seek the truth and try to get at the actual facts. They may differ, and if they do, they can then go on the witness-stand and testify to that effect. It seems Utopian, but it has been tried in England, and has succeeded so well there, as the Chief Justice says, that oftentimes when one man only is called and the medical facts in the case are given by him, the judge and jury decide from his testimony alone. If this is possible in England, it is possible here; and let it once be known that the medical profession, as represented by this Society, have pronounced the dual position of any medical man as witness and medical adviser to counsel as being derogatory to the medical profession, no reputable man will assume that position, and if he does, he will put himself before the jury in such a light as will be most unpleasant for him, as indeed it should be. I think we should keep to these two points, and not wander in our discussion of the subject.

JUDGE BARTLETT.—It was far from my intention, in accepting the kind invitation of your Society to come here this evening, to participate in any way in the discussion; but since it seems to turn to some extent on the paper which I read before the New York Society of Medical Jurisprudence last spring, I will say a few words, although they will be only to emphasize the views which I then expressed. I can hardly state these views any better than they have been stated by Dr. Raymond, and I could hardly state the reasons for their expression more forcibly.

As to the first point, that medical men, considering only their own interest, and entirely independent of the fair administration of justice, should not appear as witness and counsel in the same case, I have no doubt whatever. The opinion which I expressed in my paper was the result of long and close observation at the bar and during all the time I have been on the bench. Since I expressed those views in New York they have been confirmed in a considerable number of cases. I said in my paper that it produced a very unfavorable effect upon the judge to see a man sitting beside one of the counsel in the case at the bar suggesting questions to him which he puts, often with very little intelligence, to another medical witness on the stand, and then to see the same man take the stand himself and testify upon the medical points in controversy. It produced a very unfavorable impression on the mind of the judge, and also gave the impression that the man could not be unbiased, and it is fair to say that if that impression was pro-

duced on the judge it would be also produced on the jury. I have always thought that if a medical man acts as adviser to counsel and subsequently as a witness, he puts himself in a false position, or at all events in a position where it is only natural that he should be misjudged and his motives misapprehended by those trying the case—the jury—and by the public, if the case happens to be one in which the public takes any interest.

Now as to the other point, that it would be very well that where a medical man is called to examine into the existing condition of the plaintiff in any given case, he should meet the medical men to be called on the other side. I think it would be very well if it could be done, but I doubt whether in the present condition of the medical profession, what I know of it in these large cities, it is practicable. But that is a question which you only can answer, and one upon which a lawyer or judge can give you no advice or make any suggestion of any particular value.

As to the other point, that doctors—those who consent to do it—injure themselves by acting as counsel and witness in the same case, I think there can be no question whatever. I think that is the uniform experience of lawyers who have given any thought to the subject, and in saying this I only repeat what I said before in my paper.

I will add this: that since that paper was read, on three separate trials before me there have been doctors, in two cases utter strangers to me, who have assumed the position that is recommended in this resolution, and have either confined themselves to act as medical adviser to counsel, or if they have acted as witness, have refused to advise counsel at all, in which respect I think they were extremely wise; and in these cases the result has been (this *may* have been a mere accident) extremely fortunate to the litigants.

As I have said before, the other matter is one upon which my views are not by any means so decided, and one which the doctors must determine for themselves, but that it is not wise for them, considering only their own interests, to appear both as witness and counsel, I am thoroughly convinced.

Dr. Fox.—Mr. President, I have written an article, giving my views upon this subject, which will require about fifteen minutes to deliver, and if it is the wish of the Society I shall be glad to read it.

On motion, the Society decided to listen to the doctor's paper, which was then read as follows:

MR. PRESIDENT AND GENTLEMEN:

That the medical expert witness is at the present time held in less repute than formerly, and that his opinions have lost much of their

force with both judge and jury, as stated in the call for this meeting, is true, no one familiar with medico-legal practice will deny.

I think it well worth our while to devote a few minutes' time to try to ascertain why this is true, and to see if some means cannot be devised, by lawyer and doctor combined, to remove this disgrace from the legal and medical professions.

It is my opinion that there are a number of reasons why the medical expert, especially the medical man who appears in the interests of private individuals or corporations, is in ill repute.

We will put such a witness on the stand and see how he fares.

Having been subjected to a direct examination, the cross-examination begins, and the usual questions, which are about as follows, are put to him :

"What is your profession?"

"Are you the surgeon for the railroad?"

"Aren't you also the surgeon for the steamship company?"

"Are you paid a salary to look after the interests of these companies?"

To this indictment, and others more insinuating, perhaps, the doctor pleads guilty.

The points brought out are gone over till there can be no doubt that the jury comprehends the meaning it is intended they should convey.

I believe the object of such an examination is to show that the doctor is a partisan, and being compensated by a corporation, he will of necessity give a favorable opinion for the corporation regardless of the truth. Now, I ask what could be more humiliating to an honest medico-legal expert than to have such insinuations cast upon his character? What must be the effect of such a procedure upon jury and spectators? Only one that I can see, and that derogatory to the witness. I assert that there are as scientific, sincere, honest and conscientious physicians engaged in medico-legal practice as in any other department of medicine or surgery. It has been my experience that the medico-legal expert's opinion in cases where the question of permanent disability has been the point of difference between the doctors whose evidence was directly antagonistic—the medico-legal expert's opinion has been the true one in every instance. You will ask how I know this? The cases which I have mentioned were three in number, and this includes all cases in my experience. I was on friendly terms with the injured parties, and was allowed to see them, or a relative, at stated intervals, and in every instance there was a complete recovery. The parties were not under my professional care.

This report is not the result of any examination that I made, but it

is simply the statement of the injured party herself or of a relative. I followed these cases after they had been disposed of legally, and my object for so doing was two-fold:

First, to find out if I had been recklessly swearing away the rights of others through ignorance, and,

Secondly, my object was purely scientific, to see if such serious consequences as had been pictured could follow seemingly trivial injuries. These cases occurred in the courts of this city and county, the opinions on each side were shared in some instances by men of recognized ability, and in other instances by men of questionable ability. There are men of both kinds in all professions and pursuits. Later on I shall refer to these cases again and to others, and the questions propounded by the court, with the medical man's answers given, will be quoted verbatim as copied from the report of the court's stenographer. These cases are not the offspring of an imaginative mind, but they actually occurred, as previously stated, in our city and county courts.

If anybody present doubts, then I shall be glad to furnish him with evidence enough to support my assertion. The speaker asks that his remarks be not considered egotistical if he refers to himself, for he is stating his personal experience, which it seems should be sufficient excuse for mentioning his own name. The medico-legal expert, having passed the trying ordeal of the legal examination, is frequently subjected to a medical examination, the question being propounded by the doctor and put by the lawyer.

Such an examination is sometimes conducted so as not to bring out the truth in the case, but to annoy and confuse the witness.

The two examinations to which I have referred are not calculated to put a witness at ease, to bring out the facts in the case, to do justice to all, which should be the sole end of all medico-legal inquiries, otherwise they become shams, mockeries, and travesties upon justice.

A third reason why the medical expert is in ill repute is because a member of the regular profession is sometimes called upon to give evidence and to have his opinion contradicted by a quack or by a man of such doubtful repute that he would not meet the aforesaid individual in consultation, nor could he obtain membership in any reputable society of this city. I will illustrate with an example: Some months ago a doctor (and I disgrace the word when I apply it to this individual) testified as to the nature of an injury, how he had done an operation, how he repeated the performance at the expiration of a few days, and how he did other wonderful things in connection with this patient. I had seen the injured party, and had made an examination, and it seemed to me that the treatment was faulty. It occurred to me to suggest the follow-

ing question to be asked by counsel: "What do you think of the treatment of this case?" The doctor seemed astounded that such a question should be put to him, and he replied: "You do not wish me to criticize myself, do you?" The lawyer retorted: "That is precisely what I wish you to do. I want to know what you think of such surgery." The doctor, very much crestfallen, replied: "I think it bad surgery."

Gentlemen, that surgery must have been questionable when its originator would condemn it before judge, jury and spectators, and yet I do not believe that man was honest enough to have told that he had mal-treated his patient. At any rate the direct legal examination failed to establish the fact. A verdict was rendered for the defendant.

This doctor was so versatile and so learned that it was only necessary for a patient to tell him the kind of treatment desired and he would proceed forthwith to administer it, for he claimed to be skilled in all the 'pathies, 'ologies and 'isms. Yet he would induce a patient to bring suit, was obliging enough to secure a lawyer for him, and would then go to court and pose as an expert, in order that somebody might be compelled, if possible, to pay for the results of an alleged injury and incidentally for his bad surgery. The cross-examination, in this case, proved to be his Waterloo, and yet this Society would condemn, as derogatory, the conduct of a man who acts as medical witness and adviser to counsel in such cases. I have already referred to the medical coach to counsel to condemn him when he uses his knowledge to confuse, to annoy, to mystify, instead of trying to make clear and to enable all sides to get at the facts, in order that justice may be secured. The medical coach is needed whenever reputable doctors disagree, and his presence is positively demanded wherever the quack or disreputable witness is to appear. In the former case he will assist in bringing out the facts; in the latter he will not only bring out the facts, but he may also be the means of thwarting, seemingly, legalized robbery. It has been claimed that a lawyer cannot conduct a strictly scientific medical inquiry. This is probably true, for he studied law and not medicine. And besides it is impossible, with the large field that both professions now cover, especially in the lines of specialties, for one mind to master both. Look at the opposite picture. What could be a more ridiculous sight than a doctor conducting a legal examination with a lawyer for a witness.

If these points are borne in mind I think that the medical coach's sense of propriety and usefulness will never again be questioned. The Society's resolution, viz.: "That it is derogatory to the best interests of the medical profession for any of its members to occupy in a legal trial the position of medical adviser to counsel and witness in the case,"

does not, in my opinion, express the views of the physicians who are practically familiar with this question, and I regret that the Society has ever voiced such a sentiment. Are the physicians of our city to sit idly by and see the innocent punished, or perhaps executed, the sane imprisoned, private individuals and corporations mulcted to the tune of thousands of dollars, on the testimony of quacks, of unscrupulous medical pretenders, because forsooth it is derogatory to a reputable medical man to appear in court as witness and adviser to counsel? Nay, my friends, we have a serious, solemn duty to perform, and it behooves us as the members of a noble profession to see that that duty is well performed. I have incidentally alluded to toxicology and insanity merely to call attention to them and to the more serious phase of the medico-legal expert question. I shall not pursue these subjects further, but suggest that at a subsequent meeting they should be discussed by men known to be learned on these topics.

I again refer to the three cases of alleged permanent disability to contrast the professional expert's opinion with that of the physician or surgeon usually called by the plaintiff, and who may, or may not, be an expert. I shall also try to give to them a moneyed value, for that is the reason suits are brought against corporations, viz.: to secure a golden poultice for an alleged personal injury.

CASE No. I.—It was claimed that the plaintiff had general paralysis, following an alleged injury received on the premises of the defendant, and was probably injured for life. Opinion flatly contradicted by defendant's physicians. Verdict for the plaintiff, and the amount given was four-fifths of what the defendant had previously offered for a compromise; in other words, the plaintiff would have received one-fifth more money if the case had not been tried. Scientific result: Plaintiff has entirely recovered from her alleged injuries, and the medico-legal experts' opinion has been vindicated.

CASE No. II.—Query by the Court: "In her case, can you tell with reasonable certainty what will be the result of her injuries?" Listen to the positiveness of the medical man's reply. "Yes, I can." By the Court: "Well, state it." "The result is that she will never be a well woman." This doctor was willing to testify that if this woman should ever marry she would never become a mother; he was also willing to testify to other improbable things, all of which were properly excluded by the Court as being too remote. This physician figures in the Medical Directory as a licentiate from a medical society, and I doubt if he has a diploma from any medical college. His opinion was contradicted by the expert. Verdict rendered for the defendant.

Scientific result: This woman subsequently married, and her hus

band informs me that she is entirely well, and is now a happy mother. A second vindication for the expert's opinion.

CASE No. III.—Query by the Court: "How is it as to the permanency of these injuries?" Answer: "Answering that question on the ground of reasonable certainty, based on my knowledge of similar cases, I believe that it is permanent."

This gentleman is an expert, and he teaches surgery, but the other experts were there, and they disagreed with his opinion. The jury also disagreed, and the case was subsequently compromised for one-tenth the amount for which action was brought. Although this expert stated that he intended to use plain terms, he persisted in calling a bruise a blood tumor, and further explained for the enlightenment of the jury that a blood tumor was a hæmatocele.

Scientific result: I later on saw the plaintiff walking along the street, and, noticing that she seemed to be in good health and had also lost her limp, I made inquiry concerning her health, and she told me that she had entirely recovered. A third and last vindication for the expert.

A fourth reason why the medical expert is in ill repute is to be found in the ranks of our own profession. I say it regretfully, that there are men in our profession who are unprincipled. I'll mention an instance. Only a few months ago a physician of this city testified in court that a woman, who had fallen and bruised her shin, had, as a result of this injury, developed traumatic pneumonia—a declaration as absurd as it was false. When asked to instance a similar case in medical literature, he was unable to do so.

The next medico-legal question that this physician will possibly have to hear decided will be, how long he can be imprisoned for a certain alleged criminal operation which he is accused of having performed.

When a physician so far forgets himself as to resort to procedures which bring not only himself but his profession into disgrace, he deserves not only the full punishment of the law, but also the severest censure and condemnation from the profession itself.

When the honest medical expert comes into court and states the facts in the case just as they are, he is seldom questioned by the expert on the other side. I have repeatedly refused to go on the stand under such circumstances, and have advised the lawyer not to ask the witness a single question; the truth had been told, and why shouldn't unseemly wrangling be suppressed? Let us observe the expert, whether he be at the head of some life insurance company, or in the employ of some other company or corporation. Is he not a graduate of some reputable

medical college? Is he not generally interested in the charities of the city in which he resides? Doesn't he hold membership in our best medical societies? Isn't he about as good a citizen as there is in the community? As to his skill and ability there can be no question, and this is practically conceded by the position he holds. Would the best business men in the community put a quack, an unskilled, unprincipled medical man, at the head of a business requiring the services of a physician? No, it would be unwise; it would be a poor policy; and, looking at the matter in its worst phase, it would be a poor investment. I defy any man in this room to point out anywhere a physician, other than such as I have described, who holds a position of expert to any company or corporation. Look at the experts in New York and Brooklyn and see to what class they belong.

The expert must, then, be a man of repute, of skill, of learning, of probity, and of the strictest integrity. Such an expert need never hesitate to appear in court. His presence, his evidence, and his well-known professional standing will combine to give his testimony its proper influence with both judge and jury. Such a witness may nevertheless be subjected to annoying questions and insinuations, the worst perhaps being that he is paid by a company or corporation, and will, of course, give favorable evidence for the party by whom he is employed, regardless of the truth. These insinuations are usually made by shyster lawyers; and why a reputable witness is forced in the temple of justice to submit to insults that he would promptly resent anywhere else, perhaps to the physical discomfort of his tormentor, is something I could never understand. There is no inducement for the reputable expert to sell his opinions to anybody simply for a fee. He is a man of such ability that he usually has a good private practice, and is not dependent upon court work for his means of livelihood. He is about the most independent medical man in the community.

I believe that there is a solution for the medico-legal problem, and I am willing to assist in any way that I can to bring about the much-needed reform. It is this: When the two or more physicians of the opposing sides cannot agree, let the court name a disinterested physician who shall meet the other physicians, and after an examination and an exchange of views, a majority report, properly executed, shall be presented or read in court by the disinterested doctor, the latter to appear in court to be cross examined by the opposing counsel. This manner of settling unseemly doctors' quarrels in court can never be carried out by mutual agreement between the two professions. It will require special legal enactment, which, I am informed by a representative of one of the best firms of corporation lawyers in New York City, can be secured. Let us, then, set out at once to accomplish this the

greatest of all medico-legal reforms. This manner of introducing medical testimony will not work harm to any one, but will, I believe, secure justice for all. We shall also then be able to obtain the testimony of the best physicians in the city, some of whom now refuse to do court duty because of the present ill repute of the expert.

The list of disinterested doctors from whom the judges make selections should be furnished by reputable medical societies. This list should be carefully prepared, and after each name a note should be appended stating in what particular line of practice the physician is skilled. In this way real expert testimony could be secured, for it would be possible to have skilled physicians and surgeons for special cases. How would the quack and unprincipled medical man fare? Suppose either of them to be the plaintiff's physician: the court's physician and the defendant's expert must meet either or both of them to examine the patient, in order that they may form an opinion concerning the case; but the quack and unprincipled man are forever debarred from airing their ignorance in court. No injustice has been done to either of them, for if the disinterested physician's opinion is the same as that of the quack's, that opinion will be given to the court, and *vice versa*.

Surely, no physician who has the welfare of his profession at heart would object to this way of settling differences and of removing disgrace from his profession. He is not, strictly speaking, consulting with quacks. He may meet them, it is true, but it is for an interchange of opinion, diagnosis and prognosis being the points considered, and treatment need not be mentioned, the latter usually being the object of an orthodox consultation.

The compensation of the different physicians should be as follows: The disinterested doctor should be paid an equal amount by the parties at law, the sum total to equal what he would ordinarily receive for similar services. The plaintiff's and defendant's physicians to be paid by plaintiff and defendant a fee for the conference equal to what they would receive for testifying in court. To summarize the benefits that would be derived from this mode of introducing medical testimony would be: honest opinions from skilled physicians and surgeons, valuable time saved to a number of physicians, because only the disinterested doctor would appear in court, and his testimony could be generally given without delay. No physician would object to giving his opinion in court. All unseemly wrangling and doctors' quibbling would be done away with, and the present disgrace would be removed from the profession. The quack and unprincipled man would be forever suppressed, so far as court work is concerned. Nobody would sustain a financial loss. I should like to hear this mode of reform

discussed by the legal and medical profession, and if a better one can be presented, we should all like to hear it.

A State Board of Medical Examiners will never do away with the present existing evils of medico-legal practice, for from the moment that politics are introduced the intended reform fails; for we practically jump out of the mud into the mire.

The Chairman then called upon Judge Cullen for his views on the matter.

JUDGE CULLEN.—Mr. Chairman and Gentlemen of the Society: I came here rather to listen than to advise, because although the evil which is the subject of discussion is plainly apparent to all of us who practice before the bar or who preside on the bench, still I am entirely clear that whatever remedy there is to be devised, that remedy must proceed from the profession of medicine itself.

It is undoubtedly unpleasant to a physician with confidence in the ability which he possesses in his profession, and the value of the labor he has bestowed upon it, and above all things, his supreme integrity of purpose in the utterance of the testimony he will give, to be confronted on the witness-stand by the cunning statements of empirics or quacks. But, gentlemen, we can be sure of one thing: that however much that may be to the physician, if those contentions do bring the medical profession into disrepute, they cannot be corrected at the expense of the privilege given to every citizen of calling on behalf of his case such witnesses as he sees fit. It is unfortunate that in expert testimony it should be so; it is unfortunate that the false statements of empirics may carry the jury as against the knowledge and experience of an eminent physician, or an eminent man in any profession; but one evil would be more serious, and that would be to deprive any litigant of the privilege of calling on his behalf to testify such witnesses as he may see fit. It is an old theory in politics that the truth will prevail and that the exposure of error must be left in the world that freedom of discussion which is necessary for the evolution of truth. I say, therefore, even though some of you gentlemen may differ with me, that you cannot hope for any legislation which will limit the character of the expert witness to be placed on the trial of the case to those who may be named by the court, or picked out by any society. In fact, the tendency of the day is the other way. I do not want to enter into the discussion of the various schools of medicine, but as one school after another come up you would have to legislate as to each one of them. So that even to you who have the opinion that the true solution of the difficulty is that which was advanced by the last speaker—I say I am very sure that it is impossible of accomplishment. Your remedy here, gentlemen, must be among yourselves.

I am not prepared to say how far the remedy proposed by these resolutions would effect. It seems to me the first one is very well calculated to that end. It does not prevent the medical expert from appearing in court as a witness, and it does not prevent him from appearing as counsel, but it simply restrains him from appearing in both capacities, and would not carry that distinction between the two positions so far as to prevent the physician who is to be a witness from advising the counsel beforehand, either as to his testimony or as to the medical questions involved in the case. I think, however, as my brother has said before, that it certainly does prejudice any expert witness to appear during the trial of the case as suggesting questions for the line of examination to be put to the witness on the other side. It practically makes him the same as counsel. Undoubtedly that is sometimes done in our own profession, but a lawyer with a high sense of delicacy and honor will always avoid going on the stand in a case in which he appears as counsel. Sometimes it is necessary to appear as a witness, and then he gets another counsel to try the case. If he does go on with the case, as counsel, after having been on the witness-stand, he is always subject to the feeling from the other side that where his case is weak he went on the stand to pull it through.

As to whether you can, by any single act of this kind, greatly remedy this evil, or entirely so, of course I do not believe; but you can certainly reduce the extent of it. It will have to be done, however, principally by the highest sense of professional honor among yourselves. In the more obscure diseases physicians will differ, I suppose, but should not on simple subjects reduced to common knowledge. It seems to me, from my experience in court, that there ought to be some of the minor subjects in which the gentlemen in question should not be in flat contradiction; for instance, as to the measurement of limbs, or a case of length, when shortening has occurred, or some symptom of a well-known disease; it seems to me there ought not to be a disagreement as to these statements of facts. I think if physicians on both sides will regard disagreements of this nature occurring between them as reflecting somewhat on themselves, and somewhat on the profession, if they will be less dogmatic in the assertion of fact, have more regard to the statements of the opposing physician, where he is a man of character—if both sides will do this, I am inclined to think that it will have a tendency in a large measure to relieve the medical profession from the condemnation which they sustain as expert witnesses. Contradiction on the witness-stand as to matters which are common knowledge reflect on one if not both of the parties, and therefore they should be very careful in their statements as to fact, and each side should be very sure to see if possible by the

accuracy of their observation and their information that they are right before they make a dogmatic statement on one side or the other.

I came here to listen to you and not to advise, except to say this: That legislation will not cure this evil—the remedy lies with yourselves.

THE CHAIR then called upon Dr. Eccles.

Dr. ECCLES.—Mr. Chairman and Gentlemen: It would have been my choice to have spoken later. After hearing the pros and cons of a question of this kind, one is better prepared to definitely formulate a rational opinion. Since reading the published remarks of the learned judge, I find myself seriously disagreeing with him on several points. That the medical profession is sinking in public estimation, and that it stands much lower to-day than in the past, I for one cannot believe. The tendency seems to me to be an upward one rather than the reverse. It is quite true that increase of knowledge is revealing blemishes in the habits and powers of the profession, but these were all there before, and every generation discovers many such in the preceding. Their removal necessarily raises them in public estimation. The judge believes that for a medical man to appear in court both as witness and assistant counsel is a very serious blemish and one calculated to damage the dignity of the profession very much. Here again we disagree. The plan he proposes is all very well for the rich, but it is one that must to a very grave degree damage the poor. The man of means and the rich corporation can afford to hire separate medical men to perform the two functions, but once make it unprofessional for the poor men's family physician to help his lawyer as well as act as witness, and he will not be able to obtain justice. He has not the means with which to secure the services of medical experts. He is often even unable to pay the family doctor. In all such cases it is absolutely necessary for one man to fill the two positions if even a semblance of justice is to be had. It has been claimed that acting in the double capacity injures the party whom we would favor, since jurors are prejudiced thereby. This mainly depends upon the man. If the jury sees that he is earnest and honest, not forced along by malice or prejudice, that by no word or look does he convey a sense of bias, but only that of candor, no such impression will be likely to be left upon them.

That doctors differ is, and long has been, well known. That they differ more now than formerly is very questionable. When we consider the difficulties of diagnosis, the wonder is that they do not differ more. The difficulties of measurement in surgical cases have already been referred to. If here, where agreement might be most expected, we cannot secure it, what should be hoped for elsewhere? We all

know too well that, while fully honest, our best diagnosticians do differ in the most serious of cases. They may and often do actually occupy positions diametrically opposite of each other. One happens to be able to look further and see more of the multitudinous facts confronting them than the other. No living being can be master of all known facts cognate with and directly applying to even a single department of medical science so long as it is growing at the present rate. Their powers of induction likewise materially differ. A simple illustration, drawn from outside the region of medicine, will very fairly illustrate how honest men can easily be made to hold antagonistic positions. On board a ship three passengers get into a dispute with each other about the direction they are traveling. As they are walking the deck and facing the east, the first man declares that they are traveling eastward. To this conclusion number two objects. The ship, he says, is going westward at a greater rate of speed than they are walking, and, consequently, their direction is toward the west. Number three sides with number one as to the direction they are going, but objects to the rate of speed claimed. He thought that as the earth in its diurnal motion carries us eastward, the direction must be to the east, and, as the rate of speed is a thousand miles an hour, that is considerable faster than that claimed by number one. Until mutual explanations occur neither knows why the other disagrees with him. Each of the three men from his own standpoint is right. In anatomy, physiology and pathology similar states of affairs may arise. The men with most facts and widest mental grasp must necessarily be found contradicting those with fewer facts and narrower grasp.

One good reason for doubting the assertion that a patient's case is damaged in court by the doctor appearing in the double role of witness and assistant counsel is found in the fact that the best of lawyers have permitted it. Does it seem reasonable to suppose that they have gone on these many years sacrificing their clients' interest without finding it out, in a matter that must have been so patent? If true, some bright lawyer would have found it out long ago, and, by stopping it, have gained an advantage over his competitors.

The fact of acting as counsel makes a better witness of a medical man, and *vice versa*. He is thus put upon his mettle and feels that his reputation is at stake. He posts himself to the best of his ability, bringing to his aid the very latest available knowledge. To an expert, employed by the court, it would become a mere matter of business habit, and no such pains would be taken. With utter indifference as to who wins or who loses, the incentive to fresh and vigorous study is gone. With a novel position and desire to appear well, the reverse is true.

I was pleased to hear the judge say that to hope for aid from legislation is vain. It takes the world a long time to learn that legislative bodies can only ratify tendencies held by a majority. To pray to the legislative fetish for the removal of evils ingrained in human nature is a very common and very silly pastime. The evils that bring disgrace on the medical profession are due to the average human nature of that profession, and are no more amenable to the enactions of legislatures, than are the phases of the moon or movements of the tides. Until our average human nature improves, it is a vain hope to look for the bestowal of a higher meed of honor upon us than we now get and deserve.

Dr. WALKER.—I would like to ask the learned judge if the law has not made provision already for a medical referee in cases where there is a difference of opinion between medical men, and measurements have to be made, before whom these measurements shall be made by the physicians of both sides.

JUDGE CULLEN.—I know of no such law.

Dr. FOX.—Mr. President, the solution I offer I submitted to a firm of corporation lawyers in New York City, and they told me this matter could be accomplished; that is the reason I presented it to the Society to-night. It was not my purpose, either, to take away the right of any one to call in any witnesses he might see fit, provided the disinterested doctor appointed by the court should make a majority of those disinterested physicians who present the majority report in court.

Dr. RAYMOND.—In summing up I have no desire to add anything to what I have already said, nor do I wish to appear as advocating these resolutions unduly. If the Society decides that there is no necessity for any action, I shall be satisfied that there is no such necessity; but if it is thought that a remedy is needed, then, that being established, the method of applying it should be discussed later. As to the advisability of legislation, I think that should be the last resort. This is a matter which is purely one of ethics. My idea is, that if the members of the Society believe that this evil exists, a resolution of this kind, if adopted, will be sufficient. It would certainly have its effect upon all the members of the Society, and upon all the reputable members of the profession as well, and there would be no necessity for legislation. A witness going on the stand and also acting as adviser in any case would at once put himself in a position antagonistic to these resolutions and to the position of the Society in adopting them—an attitude which no reputable physician would care to assume. Therefore, it seems to me if we should adopt any resolution of this kind, we would at once diminish the evil if not completely remedy it. The point which has been raised here as to the advantages of the rich over the poor, or

the disadvantage of the poor as compared with the rich, if I understand it, is not a valid objection. A subpœna will bring any witness, and it has been held repeatedly by our courts that a physician under a subpœna can be brought into court and can be required to testify, and if any case occurs where the rights of any poor person are at stake, I imagine a mere statement of that fact to the court would bring before the jury such expert evidence, without cost to the plaintiff, as would overcome that difficulty.

Dr. ECCLES.—The point is this: A subpœna will not call the medical man to assist counsel, so that the poor man has to pay for assistance to his counsel.

Dr. RAYMOND.—That point, I dare say, is well taken, and whether that difficulty could be overcome I am not sure; but I doubt if any poor man was ever deprived of his rights by his inability to get medical expert evidence. There may be such cases, but if there are I do not know of them.

JUDGE CULLEN.—In reference to the resolutions the doctor has given us, it seems to me both of them help to confirm the points which have been made. I imagine if the three men mentioned by Dr. Eccles were to get together that they could come to an agreement, and there would be no lack of unanimity in agreeing as to the direction in which they were going. I also believe the same in regard to the length of limbs, and that on simple things physicians should agree. We ought all to agree on methods of measurement, that a measurement taken from a certain point to a certain point is sufficient measurement of a limb. I imagine if two physicians came together and discussed the matter of measurement of a limb, that they would find that they were both in search of the truth, and would come to an agreement. If there was any difference of opinion, the point could be brought out in court, and they would have an opportunity to explain why they differ.

This latter resolution, therefore, it seems to me meets both of these points.

That the medical adviser to a counsel often brings out points not otherwise brought out is undoubtedly true. But it seems to me, if I know anything of human nature, that a medical adviser to counsel who had put a question through the counsel to a witness upon the stand testifying for the other side and had got an answer that was contrary to his own opinion, would not be apt to change his opinion when he was on the stand testifying; for, after having committed himself that such and such was the case, he would be very apt to stick to the same opinion; so I cannot see any possible advantage in having a man act as medical adviser and witness at the same time. The medical adviser is the one who brings out the facts, and certainly it seems to

me it would be very much more to the honor of the profession if the man who went on the witness-stand to testify to facts as he understood them were not the same man who sat at the arm of counsel interrupting him with questions to put the witness—questions adapted not to bring out the facts, but to entrap the witness, or to get him to permit himself to show his ignorance, and that is done by many men very high in the profession. There is hardly a man who has had experience on the witness-stand without an instance of that kind. If a man has previously been with counsel and advised him as to the questions to give him when he was on the stand, and firmly impressed them upon his mind, it is hardly to be supposed that that man will change his opinion when he goes into court; he is partisan from the first and will remain so.

In reference to payment to witnesses, no jury expects that any witness in a case, unless stated to the contrary, is there without compensation, and if the matter is put in the proper light, I doubt if it prejudices the jury. If, however, it is shown on the witness-stand that the opinion of a witness governs his payment, that is a different thing. If the opinion depends on the fee—that the opinion is to be favorable to the suit—that implies more. If, however, on the principle that his payment is a stated sum and if his opinion is adverse it makes no difference, the payment depending on the services and not on the result—if that fact comes out clearly, as it can, it seems to me that the witness is not prejudiced at all in the eyes of the jury. I am not clear, Mr. Chairman, at all about the remedy or feasibility of this remedy. I am satisfied that the evil exists, and it seems to me very plain that it is derogatory to a member of the medical profession to act as medical adviser to counsel and witness in the same case.

THE CHAIR.—What are the obligations of a physician to the public in this particular? A case comes into court, and there is doubt in the mind of the counsel, or possibly of the medical adviser or witness regarding those questions which come before the court, and Doctor A or Doctor B is suggested to the court as persons to be subpœnaed, or the counsel himself be given power to issue a subpœna to Doctor A or Doctor B—gentlemen not known to be experts. A medical gentleman who does not consider himself an expert being called in under circumstances like that—not a witness to the facts, but simply giving his opinion as to the evidence given in court—is he not entitled to compensation?

JUDGE CULLEN.—I think such a man cannot be called upon to give his expert testimony without compensation.

JUDGE BARTLETT.—I do not think that question has ever been settled, except in one or two cases in Southern cities. My impression is that any one who is a witness to the facts concerning the suit of the

litigant may be called upon to testify without compensation except the ordinary fee of the witness for his attendance; but if he is required to give special professional knowledge, I doubt whether he can be compelled to give it without compensation. I do not think it is clear that he can be compelled to tell what he may be able to say, as on the spur of the moment, without any particular research.

Dr. RAYMOND.—The point is this: If a man is called to testify in regard to the facts coming under his own observation, if he is asked for his opinion, he can be compelled to give it, provided he can give it off-hand; but if he gives an opinion requiring research, that can only be demanded after compensation. As there are so few members present to-night, and as the subject is of such importance, I would move that the resolutions lie on the table.

This motion being duly seconded, the resolutions were laid on the table.

On motion, adjourned.

W. M. HUTCHINSON, *Secretary.*

INCOMPLETE HEPATIZATION IN LOBAR PNEUMONIA.

BY GLENTWORTH R. BUTLER, M.D.,

Associate Physician to St. Mary's General Hospital; Assistant Physician to the Methodist Episcopal (Seney) Hospital.

Read before the Medical Society of the County of Kings, Sept. 16, 1890.

During the past five years I have seen three cases of lobar pneumonia characterized by what, for want of a better title, may be called incomplete hepatization. It is a condition easily overlooked, unless a minute and systematic exploration of the chest is practised. It is also, so far as reading and observation serves me, a variation in the course and physical signs of lobar pneumonia which has hitherto not been noted, except possibly in an indefinite manner.

Two of the cases were observed in the chest wards of St. Mary's General Hospital, the third in private work. A brief description of the first case seen will serve for the other two.

A male, aged 38 years, of only moderate physique, was admitted to the hospital complaining of cough, not severe, pains in the chest neither localized nor severe, loss of appetite, and feverishness. The attack had begun with moderate suddenness three days previously with chilliness, but not a distinct chill.

The patient was willing to admit a steady use of alcohol, with occasional excesses and a consequent irregular life. Otherwise claimed to have been in fair health.

The temperature was 103.6°, pulse 105, respiration 32, showing a pulse-respiration ratio of about 3.5. Sputum was scanty, light yellow, somewhat sticky and glutinous. There was some complaint of dyspnœa, but the nares were not acting. Bowels were constipated. Tongue rather heavily coated with yellowish-white epithelia. Complained of some gastric uneasiness and nausea.

Examination of the abdomen was negative except for epigastric tenderness. Splenic and hepatic dulness not increased.

Examination of the heart was also negative except that the first sound was weak and lacking in muscular quality. Examination of the apices of the lungs showed no abnormality beside a few scattered moist râles. The bases of the lungs posteriorly gave a similar result, and one was strongly tempted to put the case down as one of bronchitis with a continued fever. But the prominent symptoms, especially the pulse-respiration ratio, pointed toward a more severe pulmonary disease than a simple bronchitis. An inch-by-inch exploration of the chest finally revealed a strip of dulness, beginning just over the right nipple, one and a half to two inches in width, and running backward and upward to the corresponding axilla, a distance of about five inches, lying in the main between the third and fourth ribs anteriorly and the fourth and fifth posteriorly. Over this irregularly oblong area there was well-marked bronchial breathing, with its correlated voice sounds.

The after progress of the case was marked by a slow convalescence, the temperature fluctuating without regularity between 100.5° and 102.5°. There was, however, a fairly steady remission in the physical signs of consolidation, but not until three weeks at least was there a return of the normal signs.

The other two cases were in all essentials similar to the one first described. They were males. They were both debilitated, one from overwork and also from alcoholism. In all the symptoms were subacute in character, the temperature running to a moderate height only. Chill, pain and cough not of excessive or even very marked severity. The sputa were not of diagnostic quality. The location of the strip of dulness, and bronchial breathing with presumable consolidation, was practically identical. Convalescence was slow. Recovery occurred in all.

The latter circumstance prohibits these brief notes from having the scientific basis of a confirming autopsy. They have, therefore, only the value and trustworthiness which may belong to careful clinical observation.

An interesting point in these cases relates to the location of the consolidation strip. Recalling the situation of this area, viz., from a point just above the nipple in front and between the third and fourth ribs upward and backward to a point in the axilla between the fourth and fifth ribs, it will be seen that it coincides quite accurately with the lower border of the upper lobe of the right lung.

This aberrant and probably unusual limitation of croupous pneumonia, while unexpected, ought not to be surprising if the probable character of the disease in question is borne in mind.

I believe very firmly in the theory, as yet not absolutely demonstrated, that acute lobar pneumonia is an acute general disease with local and characteristic pulmonary lesions. It should be sharply differentiated from lobular pneumonia, the latter being a local inflammation caused by ordinary factors, the former due to some specific poison or poisons. The micro-organisms concerned in its production may be the "Diplococcus Pneumoniæ" of Franckel, the bacillus of Friedländer, or some other yet undiscovered. The question is certainly not yet definitely settled. Some of the arguments adduced in proof of the specific pathological character of lobar pneumonia may be briefly summarized:

The great variation in the intensity and fatality of different cases, different years and different groups of cases, the latter sometimes occurring with such frequency as almost to constitute an epidemic.

The numerous reports which point toward a certain degree of contagiousness. I saw, last winter, with Dr. G. R. Fowler, a family in which three cases of lobar pneumonia occurred, an interval of a few days only occurring between the onset of the disease in each case. With Dr. O. A. Gordon I saw in another family two cases, one treading close on the heels of the other. Such instances might be added to very largely.

The inception, course and pathological attendants of the disease place it apart from a mere inflammation of local origin. It has an initial chill, a fairly regular march of fever, and very frequently a critical day, which may often be predicted within average limits.

The facial expression is somewhat characteristic, the malar flush, the herpes labialis. There is no relation between the amount of the lung involved and the duration and intensity of the prominent symptoms.

Its frequent effects upon the nervous system are worthy of note in this connection. The apical form of pneumonia in children with, in my experience, the not very rare accompaniments of deafness, convulsions and coma, is a case in point. The simulation of meningitis is at first glance very close.

The perversion of the pulse-respiration ratio is not always greatest with the most extensive consolidations, thus indicating some other influence than that of the local lesion. Nor is the rapidity of the respiration, taken by itself, a reliable index of the number of lobes involved. The explanation of heart failure in this disease which attends the difficulty so frequently experienced by the heart in doing its work, to the mechanical restraint and the obstruction to the pulmonary circulation caused by the consolidation, does not to my mind fully account for the commonness of the condition. Signs of obstructed circulation and difficult heart action are by no means most frequent with the most widespread hepatization. And the rapid disappearance of apparent cardiac asthenia coexists with unaltered physical signs. While the mechanical explanation accounts satisfactorily for a proportion of cases, yet there remain others in which some special depressing influence upon the cardiac nerve mechanism must be invoked.

If we accept the theory that lobar pneumonia belongs to the specific febrile diseases, the cases which I have related are capable of an explanation which is a mere begging of the question. In this view the peculiar position and limitation of the consolidation with the subacute course of the disease, constitutes a variant of a specific malady, holding a place in common with the vagaries of other diseases dependent upon a special cause. They were not abortive cases, for the term implies a premature ending.

From the practical side these cases simply impress the necessity of a searching and minute exploration of the chest before the possible existence of pulmonary disease is denied.

DISCUSSION.

Dr. WEST.—I do not know that I can add anything on the subject. This paper of Dr. Butler's reminds me of a case which I saw in the early part of the summer, where I made a diagnosis of a limited partial consolidation. It was in an intemperate man about forty years old, who had been sick some days before I saw him—if I remember rightly, some six or eight days. He had been subjected to exposure, and during a week or so simply complained of lassitude, with the attendant symptoms. Three days before I saw him he was seized with a chill and bloody expectoration—rusty sputa. When I saw him with the attending physician, the doctor was unable, or had been unable up to that time, to detect any evidences of consolidation. In the right chest, lower down than the doctor speaks of, but assuming a very similar curve, probably corresponding to the lower part of the second lobe, I detected a line of consolidation—a strip of about an inch, I should

say, in width. Over the rest of the lung respiration was perfectly normal. This man, however, had very decided constitutional depression; his pulse was so rapid that it was impossible to count it; indeed, he was at the time almost moribund, the respiration being very much accelerated. He lived about thirty-six hours. There was no other evidence of pulmonary disease that we could detect. Over this narrow strip the bronchial breathing, the increased voice sound, the dulness, were apparent to the doctor, and equally to myself. The man died at the heart. We both of us were very anxious to get an autopsy, but were unable to do so. I do not know in that case but that it was one of those instances which we sometimes meet where the trouble begins in the centre of the lung and travels out, so that you fail to get physical evidence of a consolidated lung until later in the disease; but certain it is, with any means which we were able to use, this single strip alone was discovered. I most cordially endorse what the doctor says about the infectious character of pneumonia. It seems to me that I have seen it so many times, without doubt, acting in such a way; as for instance, where you see a husband and wife stricken with the same disease within forty-eight hours of each other, and many such instances might be related.

Dr. CHASE.—I would like to inquire of the gentleman who has read this very able and instructive paper, or of the gentlemen who have discussed it, whether there is any probable relation between this form of pneumonia so concisely described and that which has been written upon, perhaps more fully in former times than at present, latent pneumonia. Such cases as these under consideration require very careful examination to detect the area of consolidation. Whether or not the cases of latent pneumonia are those in which the hepatization began, as suggested by Dr. West, in the interior of the lung and extended outward, or whether they are cases in which more careful clinical observation would have discovered the presence of consolidation. Perhaps the doctor will give us his views on the question of latent pneumonia.

Dr. BUTLER.—I believe, Mr. President, that latent pneumonia is most apt to occur in elderly people, and presents no symptoms which attract attention to the chest as the source of the disease; whereas in the cases which I saw, it was rather evident that there was some trouble in the chest, but it was only by a very careful examination that it could be found. In my cases the patients all recovered; I had them under observation all the time; and if they had been examples of consolidation commencing in the centre of the lung, I probably should have discovered it. But the physical signs did not increase. And yet they were not abortive cases, for the simple reason that the disease did not

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stop abruptly, but continued. The only common resemblance between latent pneumonia in elderly people and the cases which I saw, is that in both there is debility; in the one case from old age, and in the other from intemperate habits of life and from overwork. So that there is no apparent connection between latent pneumonia and the cases which I have reported.

THE CHAIR.—It was for the purpose of defining the difference that I requested the doctor to give us some suggestions on that point.

THE MORNING HEADACHE OF CONTINUOUS TIRE AND EXHAUSTION.

BY WILLIAM BROWNING, M.D.

Read before the Medical Society of the County of Kings, Sept. 15, 1890.

If any excuse is needed for again bringing up the subject of headache, it is furnished by the frequency of this complaint and the fact that it is one all physicians are expected to treat. Furthermore, the experience of Seguin, as given in his recent "Toronto Lectures," is worth recalling. He says: "I would here express it as my deliberate opinion, as the result of much study of the subject, that there is no problem presented to the physician so difficult as that of the pathology and therapeutics of a chronic headache."

Nor, despite innumerable articles and many valuable observations, is the subject as yet very fully worked out, especially as to the clinical differentiation of the various forms of cephalalgia. Of course, we all know that with the so-called functional disorders all manner of intermediary and mixed forms exist.

There is a peculiarity in many cases of headache to which little attention has been paid.[1] It might naturally be expected that long, deep sleep would so far rest and refresh the brain and its accessories as to leave the person free from headache on waking, if at any hour in the day. On inquiry, however, it may be found that the suffering is greatest at this particular time. A series of these pretty frequent cases indicates that they have in general a common cause. Before giving them, however, it may be well to recall the condition of the cerebral circulation

[1] Hamilton ("Modern Treatment of Headaches," 1888, p. 34) says: "The anæmic headache is more pronounced in the early part of the day. In fact, the patient commonly awakens with some nausea and head distress. This may often be abated by a cup of strong tea, or ammonia in some form."

during sleep. We know that the pulse rate and the arterial pressure diminish on lying down and still more in sleep—*i. e.*, the general circulation becomes less active. Further, as regards the brain circulation in particular: it has been shown by a variety of experiments, contributed by many investigators, that this is materially lessened during sleep. It is simply echoing a well-recognized fact in physiology to state that sleep is attended by a relative anæmia of the brain. (This is not saying that the anæmia produces the sleep, though it may in given cases favor it.)

Without deciding in what particular encranial structures the pain originates, it is usually accepted that anæmic conditions are causative of headache. It is almost an adage to say that pain is the cry of a hungry nerve for food.

In simple tire the circulation, when the individual ceases all effort, becomes correspondingly weaker.

Since, therefore, the brain and its envelopes are normally more anæmic in sleep than at other times, we might, after all, theoretically presume that a headache from overtire would be severest on waking, especially from deep sleep.

Whether the impoverishment due to blood of a poor quality is as harmful as that due to a diminished quantity passing through the brain, raises the further query whether it is the anæmia *per se* or the reduced pressure, intravascular and intracranial, that is the chief factor. Various observations indicate that the latter is considerably the more important, though of course even then an anæmic person would more readily develop this condition.

CASE I.—Book-keeper, about thirty-five years of age. Seen in the summer of 1885. He is spare, of slight build, noticeably pale and listless, strictly temperate, and not a user of tobacco. Has rarely had a headache in the past, and then not like the present. For a long time, and with practically no recreation, he has been confined to his work, early and late, often well into the evening. Finally he was interrupted by sickness in his family, lost sleep, and began to have severe headache. It is now throbbing, and affects rather more the frontal region, but may at times be severer over the lateral portions of the head or even at the vertex. Though of daily recurrence, it is decidedly worst on waking in the morning—*i. e.*, before rising—at which time he also feels generally miserable. On getting up and moving about, it relaxes somewhat, so that by noon he is fairly comfortable. As evening comes on he feels tired and more inclined to headache. He goes to sleep immediately on retiring, is an unusually sound and long sleeper, and is rarely troubled with dreams. No constipation or indication of digestive troubles. Appetite good, except when suffering pain.

He rested for a time, then went to the Massachusetts coast with a bag of Blaud's pills plus nux vomica. He returned greatly improved, subjectively and objectively. With some further attention he made a complete and lasting cure.

The recognition of the real cause was in this case of considerable importance to the patient, as the existence of old ear-trouble and a spot of tenderness behind the ear had led him to fear the formation of an abscess. Further, the time at which his ailment developed excludes eye-strain as a special cause.

CASE II.—Servant-girl, twenty years of age. Seen in August, 1885. Has suffered from headache now and then; but this has become much worse the sixteen months in this country. It is now frontal, and worst directly on waking in the morning. After getting up and doing something, it greatly improves; but toward evening may get worse again. She tires easily on exertion, and is troubled with shortness of breath on going upstairs or doing any hard work—of which she has much more than when at home. Sleeps well and without dreaming. Is rather pale, but flushes easily. The heart-action is fair, and there is no thoracic trouble to account for her symptoms. So far as determinable, no digestive troubles. From her history and appearance the diagnosis of mild chlorosis seemed warranted, and on corresponding treatment she improved rapidly.

It must not be inferred that the headaches of chlorosis are all of this kind. While the anæmia was the prime cause, overwork, relative to her physical condition and to her duties in earlier life, and some limitation of her accustomed hours of sleep, determined the particular type.

CASE III.—Market-boy of eighteen years. October, 1886. Has always been healthy. Looks strong and robust, though not quite fully grown. No bad habits. Of late he has been working in a market, where he had to be up at 5½ A. M., and did not get through until 10½ P. M., or at times until midnight. For three weeks he has been suffering from headache across the sinciput and forehead. This has become so severe that he has twice had to stop work, and his family fear some beginning head trouble. Has never suffered from anything of the kind before. The back of the head has remained quite free. His headache is worst in the morning on waking, before he gets up. The cup of coffee at breakfast brings entire relief to the ache in a few minutes. Then, on going to work hard, it returns. After being up awhile, lying down tends to relieve it. It is bilateral, not beating, but dull and continuous. Sudden movement of the head greatly aggravates it. Appetite good, bowels regular. He goes right to sleep directly he has a good opportunity, and sleeps soundly until he has to get up. No dreams;

no tinnitus; no twitchings; no fever; no pain except in the head; no tenderness about the head; pupils show nothing abnormal; pulse fair, though easily wavers a little in rhythm. The urgent necessity of rest was made clear. On attempting to resume his place, there was a return of the trouble. After securing an easier position, allowing also more hours of sleep, his head ceased to trouble him. The possibility of shamming was here excluded, among other reasons by his earnest desire to help support his mother.

Of earlier cases no notes were kept, and of later confirmatory ones only the following will be given, since here evidently there was not alone anæmia (oligocythemia), but also a reduction in the quantity of circulating fluids:

CASE IV.—Mrs. R., thirty nine years. Seen last spring. Menorrhagia: flow too frequent, prolonged and profuse. She is weak, pale, exhausted, and has lost flesh. Mornings she is specially weak and suffers from a general headache. This is directly on rising, which in her case means also on waking, as she has a large family and has to have an early breakfast for her husband. Afternoons she feels much better. Appetite good; sleep excellent; bowels regular; some palpitation. By checking her losses and treating the anæmia, relief in every respect soon followed.

CASE V.—A good illustration of this class of headache is given, in another connection, by Dr. W. Ingalls, in the *Boston Medical and Surgical Journal* for November 10, 1881:

"*Case III.*—A married woman, aged forty, tall, well formed, of light complexion, has always been a worker; has been married sixteen years; her oldest child is thirteen and her two other children are ten years old; she had a miscarriage at two months, five years ago; is a housekeeper with love of order and neatness in excess, which, as she keeps no servant, causes her great labor. Her children are almost entirely clothed by her own hands. Her husband is a skilled workman, and must have his breakfast and be out of the house by seven o'clock; his dinner must be ready at ten minutes past noon. This is a mere outline of her life. To bed at ten, she rises at five. Note this: rarely does she go out of the house except as a matter of duty.

"About seven years ago she awoke one morning with her first headache, which filled her with astonishment, so great was the pain, but as the day wore on the trouble diminished, and this is often the case with her. Headaches, sometimes with, and sometimes unaccompanied by, nausea, have pursued this patient all this time. The bodily functions for the most part are in good order. Occasionally there is a restless night, but generally sleep is sound and sometimes profound; quite frequently at the five o'clock awakening she is heavy with sleep, but the

morning duties are, to her, inexorable, and there is no "folding of the hands." Since the miscarriage the headaches have been no more severe than they were before.

"Five years ago the patient took a vacation for five weeks at her old home far down East. During the first two weeks there her headaches and her general misery were indescribable; but from that time an amendment took place, and she began to make visits and to ride and walk, and was free from suffering, and became well and strong. The amendment continued for a week or two after her resumption of her home duties, since which she has been as she was before. She is exempt from her malady about three-fourteenths of the time."

There are certainly various other causes of morning headache. Among these are: Disturbed and dreaming sleep, a large late (undigested) meal or other error of diet on the previous day, and poisoning by inhalation of bad air (from exhalations in poorly ventilated chambers, from leaky gas-pipes, sewer-gas in rooms, etc.). So-called periodic headaches also not infrequently begin on waking. But in these cases the trouble does not recur daily nor in other ways conform to this type, though some similarity in pathology is possible. On the other hand, of course a person subject to the headache of tire may bring it on at any time in the day, only the most marked characteristic is the morning recurrence.

The drinker's matutinal sufferings—*Katzenjammer*, hot coppers, swelled head—may pass for an acute and artificially produced example of this trouble. The alcohol first stimulates the circulation and perhaps more directly the nerve structures. Often there is some loss of sleep. Then comes the reaction, increased by the depression that sleep brings, and by nausea of gastric origin. His morning "eye-opener" refreshes his feelings by stimulating anew.

The characteristics and co-symptoms of this type of headache, when uncomplicated, may be summed up as follows:

1. A history of tire and exhaustion from prolonged and over work, often also in part from short hours of sleep and anæmia of whatever origin.

2. The common occurrence and greatest severity of the trouble on waking.

3. Its improvement on gentle exercise or on taking a hot or stimulating drink; sometimes growing worse again later in the day.

4. Its frequent, even daily recurrence.

5. Its dull, non-throbbing, non-neuralgic character.

6. Any part of the head may be involved, though oftener the frontal.

7. The person sleeps with the head low.

8. Sleep comes easily, is deep, and is rarely disturbed by dreams.

As to the other symptoms, dizziness on suddenly rising, nausea, etc., may or may not be troublesome. Though only occasionally are there points about the head tender to pressure, yet, as in many chronic headaches, there may be a number of fixed or constant points about the cranium that are exquisitely sensitive to even a very gentle faradic current.

Treatment must correspond to the cause. Usually this can be remedied, and then the prospect of relief is excellent. Recreation—rather than full rest—is often more important than drugs. In younger people, feeding, iron and general tonics do good.

OBJECTIONS TO THE GENERAL USE OF HYPNOTISM.

BY W. H. B. PRATT, M.D.

Read before the Medical Society of the County of Kings, September 16, 1890.

The decade last past has abounded in publications on the subject of hypnotism in its relation to therapeutics. Each succeeding year the subject seems to have gained an increasing number of earnest, enthusiastic investigators, until the books and papers devoted to its consideration at the beginning of the present year exceeded one thousand in number. It has also been considered of sufficient importance to engage the attention of European medical congresses and societies—special meetings for its discussion having been accorded it.

Interest in the subject has by no means as yet begun to decline. Judging from the frequency of articles in the medical journals, urging its therapeutic value, and the very whirl of extended notices given it almost daily by the non-scientific press, there is strong promise that the close of the present year will register a large addition to the already copious literature placed to its credit.

With such a busy corps of workers earnestly and ceaselessly advancing its claims for immediate recognition, as a new and important addition to the medical armamentarium, it seemed to your Committee that the time was ripe for an exchange of views and experiences in this Society on the "suggestive treatment."

In trying to acquaint ourselves with its theories and methods, and the appropriate conditions under which a trial of its powers is indicated, we are met by the claims of two distinct schools: the Salpêtrière or Charcot school, which affirms that the production of the hypnotic state

is limited to hysterical subjects, or at least to those who are neurotic with a strong tendency to hysteria; and the Nancy or Bernheim school, which teaches that hypnosis can be induced in a large majority of healthy persons.

Where the truth lies in these opposing contentions can only be settled by further knowledge. I believe that the views presented by the Salpêtrière school will receive final indorsement, and that the more general acceptance just now accorded the Nancy claims is the result of the more zealous propagandist spirit which has taken possession of its coterie of investigators.

Hypnosis, as defined by Bernheim, is "the induction of a peculiar psychical condition which increases the susceptibility to suggestion." Such a definition fits admirably all the methods that have set up their claims for working supernatural cures as far in the remote past as history reaches. Conjuration, sorcery, incantation and divination founded a belief in themselves which lasted through thousands of years, by the ability of the priestly craft to bring the minds of men into this very "peculiar psychical condition." As the centuries rolled on, charms, amulets and the royal touch exerted their mystic power by the same means; and, in the more recent times, mesmerism, clairvoyance, prayer cure, faith cure, mind cure and Christian science have each worked its own marvelous cures, the same "psychical condition" being a *sine qua non* in them all.

It is like the old play of "Masks and Faces:" the mask changes, and the deception is so clever that we are ready to believe that a real change of individual has taken place; but it turns out, after all, that, with the appearances of reality, they have been only masks, and that one face and voice has been behind them all. It seems to have been reserved for scientific research, with its indefatigable laborers, to add to its long list of honors that of tearing away the last of these masks that have been deceiving mankind, and revealing the true face of the apparent miracle-worker, in modern hypnotism.

But what is this "peculiar psychical condition" which must be induced before one can experience the full influence of suggestion?

I am best satisfied with the definition that it is "the abnormal state produced by concentration of attention, and abeyance of the will." Reason and Judgment abandon their seats, leaving Imagination in uncontrolled authority. In such a mental state, fancies are realities, fictions are accepted as facts, and the false has nothing to differentiate it from the true. All things are real, all are facts, all is truth.

That such a psychical condition can be produced in a large percentage of selected subjects is so fully and satisfactorily attested, that we are compelled to give it our acceptance. Many, however, of the

extraordinary results claimed by the enthusiastic explorers and auto-hypnotized experimenters cannot command the credulous reception of the general profession without still further proof, and it is probable that future experience will show that many authors have greatly exaggerated its value.

If the relief afforded suffering humanity is the correct measure of value to lay down on every claimant to therapeutic power, then the shibboleth of "suggestive therapeutics" has not fairly gained for itself a just claim of superiority over the methods displaced.

It is, however, a sufficient honor that a rational explanation has, through it, in our time, been given to psychological phenomena that previous to its illumination were shrouded in the misty atmosphere of hypothetical suggestion.

That the old methods of working through the imagination were as fruitful in relieving physical distress as our latest cult is fully maintained by the historical records. Perkinism, with its metallic tractors, a product of Connecticut which flourished just one hundred years ago, is an historical movement well known to us all. It captured the confidence of large numbers of people, many of high station and influence, and by the suggestion of cure that was presented in their manipulation wrought results so startling, in relieving the many ills and pains of life, that a considerable part of the community, seeing the success attending them, wondered and fully believed that a veritable panacea had at last been discovered. Its conquests were not confined to its native land. It was not timid in essaying its power under foreign skies, and the tide of success rose as high in Europe as in its modest New England home. The claims advanced for the tractors read as though published in last month's *Revue de l'Hypnotisme* on the therapeutic uses of hypnotic suggestion. These instruments were advertised for the cure of insomnia, rheumatism, neuralgic pains, inflammations and even tumors—all of which has a suggestively familiar sound.

Again, the world is not yet freed from witnessing the successes attending the formula that the potency of any drug is in the inverse ratio of its dilution or trituration—a remarkable exhibition of what the imagination can do in those "peculiar psychical conditions which increase the susceptibility to suggestions."

Still again, thousands of poor sufferers, in the same psychical condition, with their minds concentrated on the one thought that Divine Power has in store for them the restoration to health which they so passionately crave, make their long and painful pilgrimage to the healing waters of the fountain at Lourdes, and return to their homes leaping and shouting, and praising God.

It is with a feeling of profound gratitude to the French schools that

the key to the solution of all these varied forms of cure has been handed to us. But when a new system of therapeutics based on this discovery is at the same time held out for our acceptance and general use, the conservatism of our profession, which has so often been a shield and buckler for our defence, wisely declines to give a full endorsement to the new teachings until a further and more extended investigation, and the statistics gathered from a much longer series of experiments, shall verify the asserted value of the system.

The essential feature that characterizes modern hypnotism, and distinguishes it from the older parallel manifestations, lies in the close relation of the subject hypnotized to the personal hypnotizer. "In the hypnotic state the subject's mind retains the memory of the person who has put him to sleep. Whence the hypnotizer's power of playing upon his imagination, of suggesting dreams, and of directing the acts which are no longer controlled by the weakened will."

The profounder the hypnosis the greater grows the power of the hypnotizer, until the influence over the subject is absolute, and a condition of complete automatism is reached. The hypnotic degree at first attained in a given subject may be but slight. We are urged, however, not to be discouraged, that the power of the operator will increase, as a rule, at each sitting, and that finally, in some cases, the power gained enables the hypnotizer to throw his subject into hypnosis by a look.

In the advanced degrees the ability of imposing on the patient post-hypnotic suggestions is reached. The extreme phenomena made possible in this condition, of profound somnambulism, cannot, we are told, be obtained in all subjects, but in all cases there is an increased susceptibility to suggestion. In this state the hypnotized one is powerless in the hands of the operator—obedient to his suggestions, not only at the time, but after the lapse of long periods.

Coming from the imposed sleep, amnesia is complete, and his acts, seeming to him to be dependent on his own volition, are those stamped upon his cerebral centres by the operator, from the carrying out of which he cannot escape.

Who can fail to see that the end of such a series of experiments, even with an eye single to its therapeutic power, will inevitably result in a disturbance of the healthy balance and equilibrium of the cerebral activities, and lead to all the evils attendant on enfeebled volition?

Doubt is expressed as to the permanent character of the cures effected by this means; but granted all the permanency claimed, and its success in all the variety of pathological conditions that the advocates of this treatment assert can be cured through its instrumentality, and yet it seems clear to me that a possibility exists that, along with the

physical relief, runs the tendency to such an impairment of the psychical individuality and independence, though relieved from present ills, the last end of that man may be worse than the first.

The *material* agent creating the suggested benefit, such as the charm, the amulet, the drop of water, the bits of metal, the infinitesimal dilution, with or without an accredited association with Divine Power, is direct in its action and susceptible of only singleness of purpose.

In the substitution of the *human being* as the suggesting power, the character of the suggestions given, from this directness and singleness, at once becomes potentially as diverse and many-sided as the thoughts, passions, fancies and desires that find lodgment in the mind of man. I simply present the changed situation, and will not attempt the deduction of the possible results.

The specific dangers, recognized and noted by the investigators on this subject, I will not give in detail. The character, however, of the dangers admitted is enough, in the event of a general and widespread practice of the art, to foreshadow a radical revision of our criminal laws and the introduction of many new factors into our sociological problems.

Bernheim, full of enthusiasm over the benefits, through hypnosis, that are close at hand for one who would but reach out and dispense them, closes the preface to his last edition in these words: "Suggestive therapeutics, accepted and practised by all physicians, will be one of the fairest conquests of contemporary medicine."

The fulfilment of this enthusiastic prophecy, when every physician is daily to try his powers of hypnosis, by the latest methods, over the already nervously disturbed patients that come to him for relief, would, I fear, act as a blight upon the virile rational therapeutics of to-day and envelop it in a cloud of sentiment, fancy and imagination.

There is a reasonable doubt that it will ever prove itself of benefit in a class of cases sufficiently large to warrant its general use. But in view of the dangers recognized, the time is certainly not yet for its common and unrestrained practice.

I believe that the State, as she now protects against abuses in mental diseases, should throw guards and guaranties around society to protect against this potential enemy of mankind, until further research, away from the atmosphere of blinding enthusiasm, shall finally determine its proper position in practical medicine.

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EDITORIAL.

THE POPULATION OF BROOKLYN.

The subject of population is always one of great interest, although the reasons therefor are various. Rivalry between neighboring cities is often the only motive which excites this interest. Health authorities have a higher motive than this: it is their pride to point to a low death-rate, and as the computation of this depends on the population, it is very important that the methods by which the enumeration is made and the results should be trustworthy and such as to inspire confidence.

The United States census of 1880 gave Brooklyn a population of 566,689. The State of New York should have taken a census in 1885, but politics prevented, so that when 1890 came the population of Brooklyn was simply a matter of conjecture. The basis for estimation was for some the directory, and for others the number of houses. Every one appreciated the fact that the city's growth had been phenomenal, and that any estimate must rest solely on the judgment of the one who made it. When, therefore, the U. S. census was taken in June, and the result announced, there were various opinions as to its reliability. The figures have not been announced officially, but are said to be 804,377, showing an increase of 237,688 in ten years. A most

gratifying exhibit, truly; but still there was so much doubt felt by the city authorities that it was determined to take a new census. The discrepancy was very marked when the results of the U. S. census were compared with the estimate of the Health Department. This estimate placed the population of Brooklyn, April 1, 1890, at 859,612, and July 1st, 871,852. This showed a monthly gain of about 4,000, so that at the time the U. S. census was taken the population according to the estimate of the Health Department was approximately 867,000, a difference of 63,000. The new census was ordered to be taken by the Police Department, and the arrangements were entrusted to F. S. Dallon, the efficient and experienced Deputy Commissioner; 117 men were detailed for the purpose, and the enumeration was made by election districts, of which there are 648. The record to be made was of the street and number, the name of each individual, whether male or female, adult or minor. This census was completed in twenty-two working days, and with the result of giving Brooklyn a population of 853,945. This may be taken as the population of the city on November 1st. If we assume that 4,000 is the monthly increase, as estimated by the Health Department, then the U. S. census would be for November 1st, 820,000, or 34,000 too few; while the figures of the Health Department would be 884,000, or 31,000 too many. Of course these latter figures are round numbers, no attempt having been made to calculate them to a nicety. The monthly estimated increase of the Health Department would seem by these figures to be too high. We should be inclined to regard the census taken by the police as nearly accurate as any census can possibly be; doubtless there are some errors, but these cannot, we think, affect the result materially.

It seems to us that this police census has demonstrated that the most efficient way of taking the census of a great city is through the police force. It is certainly the most economical; the entire cost of the recent one being but $700, the amount paid for stationery. We would suggest to the authorities the advisability of taking a census of the city yearly, and that this be made the basis for the computation of the death-rate.

The present position is an embarrassing one. What figures shall be used by the Health Department in its calculation? Believing as they do that the U. S census underrates the population, the adoption of those results would do the city great injustice by giving it a higher death-rate than actually exists, and yet unless this is done, it will be impossible to compare the statistics of one city with those of others, which is one of the objects of a national census. In our miscellaneous department we publish the census of the police by wards.

THE FATHERS OF MEDICINE.

During the coming year the JOURNAL will publish among the advertising pages a series of twenty-four engravings illustrating the epochs of medicine. They will consist mostly of portraits of the "fathers of medicine," from the collection of Dr. J. H. Hunt, a member of the editorial committee, who will contribute the biographical sketches.

Those of Hippocrates and Galen will appear in the present number, and will be followed by Vessalius, Ambrose Pare, Fabricius, Harvey, Jenner, Hunter and others.

OBITUARY.

DR. SIDNEY ALLAN FOX.

Dr. Sidney Allan Fox died of pneumonia on the morning of the 10th inst., at his residence, 22 Cambridge Place, aged 34 years, 6 months and 26 days.

Dr. Fox was born at Mount Sterling, Ky. He graduated from the University of Kentucky, and afterward pursued the study of medicine at Bellevue Hospital Medical College, New York City, receiving his diploma from that institution in 1880. He then entered Charity Hospital as interne, remaining one year. Later he served one year in the New York Hospital for Relief of Ruptured and Crippled.

He came to Brooklyn in 1883.

When the Brooklyn Elevated R. R. commenced operations, Dr. Fox was appointed surgeon. This position he held up to the time of his death.

The Brooklyn Throat Dispensary, which was opened October 15, 1888, was one of the results of Dr. Fox's endeavors. He was appointed physician and surgeon-in-chief.

Dr. Fox was present at the International Medical Congress at Berlin last summer. On April 12, 1887, he was married to Mary Coombs, only daughter of Wm. J. Coombs, Congressman elect.

Mrs. Fox had been ill with Typhoid fever several weeks before the doctor was taken sick.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.

A regular monthly meeting of the Medical Society of the County of Kings was held at the Society rooms, 356 Bridge Street, on Tuesday evening, November 18, 1890, at 8 o'clock.

There were about 100 members present, Dr. Walter B. Chase in the chair.

The minutes of the previous meeting were read and approved.

The Council reported favorably upon the following applicants, and recommended that they be elected to membership:

Drs. Henry Schilling, N. Y. U., 1890; John O. T. Hill, L. I. C. H., 1886; J. Barney Low, Georgetown, 1881; Chas. G. Purdy, N. Y. U., 1888.

The following applications for membership were presented:

Dr. J. C. Rappold, Jr., 750 Flushing Avenue, U. C. N. Y., 1890; proposed by Dr. Wm. C. Schirmer; Francis Schlitz.

Dr. George D. Holstein, 340 Lafayette Avenue, U. N. Y., 1882; proposed by Dr. E. J. Chapin Minard; Dr. D. Myerle.

Dr. William A. Griffith, 669 Willoughby Avenue, L. I. C. H., 1889; proposed by Walter B. Chase; Geo. W. Brush.

Dr. Paul H. Fairchild, Hancock Street, Bellevue; proposed by Dr. F. D. Bailey; Dr. W. B. Chase.

Dr. Joseph Wheeler Smith, 1208 Herkimer Street, L. I. C. H., 1886; proposed by Dr. R. L. Dickinson; Dr. Charles Jewett.

Dr. Calvin F. Barber, 36 Lafayette Avenue, Coll. P. and S., 1882; proposed by Dr. Wm. Browning; Dr. Thos. L. Wells.

Dr. Lester C. Baldwin, 1153 Gates Avenue, U. C. N. Y., 1879; proposed by Dr. Walter B. Chase; Dr. Frank Baldwin.

Dr. C. F. Perry, Union Street; proposed by Dr. Geo. R. Fowler; Dr. G. H. Evans.

The Secretary presented a letter from Dr. Hayden Nichols, requesting, under Sec. 3, of Chap. 14 of the By-Laws, that a ballot be taken by the members present upon the election to membership of Dr. M. J. Leland.

Dr. Burge moved that the communication be referred to the Council for investigation and decision. Seconded by Dr. Fowler.

As such action necessitated the temporary suspension of the By-Laws, a vote was taken, and the By-Laws were duly suspended.

The motion to refer to Council was then put and carried.

The following, having been duly proposed and favorably reported upon by Council, were declared elected to membership:

Drs. William C. Braislin, Clarence W. Sheldon, Martin Amador, H. Messenger Ayres, Wilbur L. Rickard, Arthur E. Smylie, Sidney Herbert Gardiner, Frank E. Boyden.

SCIENTIFIC BUSINESS.

Report of the Surgical Committee: The first paper of this Committee was by the Chairman, Dr. H. W. Rand, entitled "The Question of Early Operation in Disease of the Vermiform Appendix." Dr. Rand being unable to attend, the paper was read by Dr. West, with the proviso on Dr. Rand's part that he have the liberty of replying to the members discussing the paper, after the publication of the discussion in the JOURNAL.

The discussion was opened by Dr. Gilfillan and continued by Drs. Fowler, Van Cott and Hutchinson.

The second paper, entitled "Remarks on Cancer," by Dr. W. H. Bates, was read, and discussed by Drs. Shirwell, Otterson, Eccles and Van Cott.

The third paper, entitled "Notes on Modern Methods of Closing Wounds and Controlling Bleeding Vessels," was read by Dr. Alex. J. C. Skene. The lateness of the hour precluded a free discussion of this paper, and after some discussion as to making it the subject of a special meeting or the first order of business for the next meeting, on motion of Dr. Brush it was

Resolved, That any member desiring to discuss Dr. Skene's paper might have the opportunity of doing so by presenting his remarks in writing to the editor of the BROOKLYN MEDICAL JOURNAL without delay, at the same time sending a duplicate of his discussion to Dr. Skene, in order that he may reply thereto if he so desires.

The President announced that the Red Cross Society desired to inform the Society that they would furnish district nurses free of charge in any case where the patient desired a nurse and was unable to pay for one.

NEW BUSINESS.

The following Obituary Committees were appointed:

On the death of Dr. Lloyd: Dr. G. N. Ferris, Dr. P. L. Schenck, Dr. H. Bulwinkle.

On the death of Dr. Gregory: Dr. Geo. Wackerhagen, Dr. A. Ross Matheson, Dr. H. H. Morton.

The President stated that the Council had decided to give the

Annual Reception to the members prior to the December meeting, and that due notice would be given of the same.

On motion, the meeting adjourned.

W. M. HUTCHINSON,
Secretary.

HARLEM MEDICAL ASSOCIATION.

The second regular meeting of the Harlem Medical Association, session 1890–'91, was held November 5, at 5 West 125th Street. The President, Dr. E. FRIDENBERG, in the chair; Dr. A. H. LEARY, Secretary. About thirty members were present.

Dr. TRUAX presented a patient, chiefly to show what could be done in the pleural cavity and yet the patient survive—a male, thirty-one years old, who, two years ago, was shot through the chest. The ball entered the left nipple and made its exit a little above the apex of the scapula. He soon recovered and went to work. Several months after he had pleurisy with effusion, and was admitted to the German Hospital, where he was aspirated, and discharged apparently cured.

A few months later he entered Bellevue Hospital, when it was learned he had empyemia, and an incision was made beneath the lower angle of the scapula. About four weeks ago the patient presented himself to Dr. Truax at the Harlem Hospital, and an abscess was diagnosed within the chest. The incision in the back was reopened and an inch and a half of rib resected. The wall of the abscess could be distinctly felt with the finger in every direction. The cavity held sixteen ounces of water. A drainage-tube was inserted in the lowest point, and the case terminated rapidly. The percussion note is good over the whole posterior portion of the lung.

Dr. MANLEY called attention to the supernumerary nipples the patient presented. He had recently seen a case where milk was secreted in glands situated such as these.

Dr. FRIDENBERG inquired if there was any sinking in of the ribs.

Dr. TRUAX.—Very little.

Dr. EDWARD FRIDENBERG presented a case of

INCIPIENT LOCOMOTOR ATAXIA WITH MARKED OCULAR MANIFESTATIONS.

Minna F., a dressmaker, aged forty-six, complains of blurred vision and headache while sewing. Her "pin-head" pupils suggesting the possibility of spinal disease, prolonged questioning resulted in the following

History.—Patient (of a healthy family, previously in excellent health and free from symptoms or signs of disease) experienced a severe fright

about three years ago. On the following morning she found herself suffering with double sight, lasting two or three weeks. Since this fright she is troubled with attacks of pain in the region of the stomach, running backward toward the spine, always accompanied by nausea, occasionally by vomiting. The attacks recurred at intervals of three to four weeks, bore no relation to the menstrual periods, and lasted about eight hours. Patient constantly feels tired. She has occasional pains in the knees, which she attributes to prolonged sewing at the machine. Of late sewing causes blurring of sight and frontal headache. Bowels somewhat constipated; urination normal; menstrual periods irregular since some time.

Examination of Eyes:

V. O. D. $^{20}/_{40} + 1.25$ D. sph. $^{20}/_{30}$.
V. O. S. $^{20}/_{60} + 1.25$ D. sph. $^{20}/_{41}$.

In both eyes. Motility normal. Visual field (for white) normal. Marked green-red blindness. Marked myosis; pupils barely the size of a pin's head. Reflex iridoplegia; pupils do not react to light either directly or consensually, but grow smaller during accommodation or convergence. The ophthalmoscope reveals commencing atrophy of both optic nerves, well defined, whitish disks and blood-vessels of normal calibre. There is absolutely no ataxia either of lower or upper extremities; no anæsthesia or paralysis, but the patellar reflexes are absent.

We have evidently to deal with a case of locomotor ataxia, arising acutely after a severe mental shock. Its first symptom, paralysis of an ocular nerve; then general lassitude, gastric crises; after some years myosis, reflex iridoplegia, optic nerve atrophy and absence of patellar reflex. The absence of ataxia does not invalidate the diagnosis. Early eye-symptoms usually mean late ataxia, and *vice versa*.

Dr. DANIELS.—The diagnosis is not proven. Peripheral neuritis would account for all the symptoms. You must prove disease of the spinal column.

Dr. FRIDENBERG.—A number of the symptoms are undoubtedly due to pathological changes in the peripheral nerves. These changes are exactly similar to those found in the posterior columns, and affect peripheral nerves and brain centres as well as the spinal column.

Dr. FRIDENBERG presented a patient with

PARALYSIS OF THE SUPERIOR OBLIQUE MUSCLE OF THE LEFT EYE.

The paralysis was of specific origin. The case was utilized to demonstrate the analysis of double images, and the following table was

recommended as a simple yet exhaustive scheme of diplopia due to paralysis of isolated ocular muscles:

			PARALYSIS OF
Diplopia..	Lateral ...	Right-sided.....	Homonymous = Right externus. Crossed = Left internus.
		Left-sided..... ...	Homonymous = Left externus. Crossed = Right internus.
	Vertical...	Upward	Homonymous = Inferior oblique. Crossed = Superior rectus of eye, whose image is highest.
		Downward	Homonymous = Superior oblique. Crossed = Inferior rectus of eye, whose image is lowest.

KINGS COUNTY MEDICAL ASSOCIATION.

This Association will hold its next meeting on the second Tuesday of January at Wurzler's Building, 315 Washington Street, at 8.30 P. M. The paper of the evening will be by Dr. Louis F. Criado, entitled Galvanic and Faradic Electricity, and their Uses in Gynæcology.

PROGRESS IN MEDICINE.

SURGERY.

BY GEO. RYERSON FOWLER, M. D.,

Surgeon to St. Mary's Hospital, and to the Methodist Episcopal Hospital, Brooklyn.

IODOFORM GAUZE DRAINAGE OF THE PERITONEAL CAVITY.

Van Stockum (Nederl. tijdschr. v. Verlosk en Gyn.; Centralblatt f. Chir., No. 35). S. in this communication furnishes a contribution to the subject of the treatment of dead spaces in the peritoneal cavity following laparotomy, as well as the prevention of adhesions. His researches follow those of Mikulicz, Terrillon, Fritsch, Lande and others. The material for these studies was obtained from the gynæcological clinic of Prof. Treub, in Leyden, and these are supplemented by a series of experiments upon rabbits. The method of Treub differs from that of Mikulicz and Fritsch, who allow the tampon of gauze to remain for from seven to eight days, thereafter replacing with a still smaller one, or substituting for it a drainage tube. Treub, on the contrary, permits the gauze drains to remain only from thirty-six to

forty hours, and then dispenses with their use entirely. This method possesses the great advantage of avoiding the formation of adhesions, with its consequences. While the tampons remain in the cavity of the peritonæum adhesions form around the same, whereby it is quickly walled off from the former. In this manner the intestinal loops form adhesions with each other, with the parietal peritonæum, and with the abdominal walls.

In order to come to a definite conclusion regarding the causes of the formation of peritoneal adhesions, S. performed two series of experiments upon rabbits. In the first of these he followed the course pursued by Dembowski, namely, that of rough manipulation of the peritoneal surfaces, brushing these vigorously with a coarse tooth-brush, until there appeared sufficient lesions to produce points of hæmorrhage. No drainage was used in these cases. In the second series laparotomy with temporary gauze drainage was done. In the first series the animals were killed at the end of ten days and no adhesions were found. From this the conclusion is drawn that the manipulation of the intestinal loops during a laparotomy is not the cause of the adhesions which subsequently occur. In the second series the abdomen was opened in the linea alba, and a portion of the parietal peritonæum excised, and the wound closed with carbolized silk or catgut, and a simple collodion dressing applied. From observations made in this series of experiments, six in number, S. was led to the conclusion that ligatures and sutures almost always, and wounded surfaces rarely, are the cause of peritoneal adhesions. In order to study the influence of iodoform gauze tampons when placed in the peritoneal cavity for purposes of drainage, S. placed a strip of this material between loops of the intestinal tube and the abdominal wall, leading the end of the same through the wound in the latter, outward. This was removed after between two and three days, and the animal was killed a week later. By means of these experiments S. learned that as soon as the tampons were introduced adhesions commenced to form, the surrounding intestinal coris becoming thereby immobilized. The cavity in which the tampon lies remains, however, in communication with the rest of the abdominal cavity, thereby rendering drainage of the entire peritoneal cavity possible. This communication persists for at least five days; should the tampon be removed during this time, the cavity from which it is removed should be treated as the open peritoneal cavity. After recovery, no adhesions result from the tampons. Should the tampons remain in situ for a longer time, they become encapsulated; in the removal the encapsulating structures are easily torn, and extensive adhesions are now the result. The method of Mikulicz, therefore, offers two disadvantages, namely, the formation

of adhesions and the occurrence of intestinal paralysis through the fixation of the intestinal tube. S. is of the opinion that these may be avoided by the employment of the temporary tamponade or gauze drains of Treub. Should the drains or tampons be removed after a shorter time, say two days, the peritoneal cavity is found to be almost entirely dry, and there remains a wound surface, which is now dusted over lightly with iodoform, and from which a very slight amount of secretion occurs. Unlike other wound surfaces, the arrest of secretion upon this surface is not to be looked upon as an evidence of danger; the great ability which the peritonæum possesses of resorbing secretions is here to be taken into account. In those cases, however, in which purulent surfaces are left, as for instance, after removal of suppurating ovarian cysts, permanent drainage is most urgently indicated.

Owing to the fact that some disturbance of the parts becomes necessary during the removal of the gauze, S. does not recommend its use in cases where resection of the intestine has been done.

THE PATHOLOGICAL ANATOMY AND OPERATIVE TREATMENT OF CONGENITAL TORTICOLLIS.

J. Vollert, Vienna (Centralblatt f. Chirurgie, No. 38, 1890). The author calls attention to the pathological changes observed in the muscular tissue of the affected sterno-mastoid muscle in congenital torticollis. His observations are based upon the examination of specimens removed by the late Prof. v. Volkmann, of Halle, from three cases of this deformity. The operation of Volkmann (open longitudinal incision at the most prominent portion of the contractured muscle) permits of a most thorough investigation of the condition of the muscle. In all three cases the peculiar whitish-blue, shining and reflecting appearance of the muscle which caused it to resemble tendon, was observed, and this portion was excised by a transverse division of the muscular structure. At v. Volkmann's request, V. made careful microscopical examination of the portions of muscle thus excised, with the result of corroborating v. Volkmann's previously-made assertion that in some of these cases, at least, no changes in the muscular structure would be found. In our specimen such was found to be the case, but in the other two, although some muscular fibres were found to exist, yet they were not in a normal condition, being atrophied and isolated. Between the muscular fibres was found loose but moderately solid connective tissue, which gave the impression of having restricted the growth of the muscular substance by its own active proliferation, and was itself disposed to favor a retrogressive metamorphosis. In the sections in which these changes were the most pronounced, there was no difficulty in discriminating between these

and the characteristic appearance of true tendonous structure, as for instance the tendon Achilles.

The author proposes for these cases the name of fibrous myositis.

A NEW OSTEO-PLASTIC METHOD OF RESECTION OF THE FOOT.

Prof. Obaliński, Krakan. O. describes a new method of gaining access to the bones of the tarsus as follows: The operator, facing the plantar surface of the foot to be operated upon, grasps the latter with the left hand in such a manner as to separate the two outer from the three inner toes, while an assistant grasps the remaining toes and forcibly draws them to one side. A medium-sized amputation-knife is then entered in the space between the two groups of retracted toes, and is carried, with considerable force, between the metatarsal bones, and then between the cuboid on the one side and the external cuneiform and scaphoid on the other, until the anterior surface of the astragalus and os calcis is reached. The two halves of the foot are now retracted laterally, the cut surfaces forming a right angle with each other, when easy access is obtained to the individual bones of this portion of the foot.

In joint tuberculosis the disease is rarely confined to a single bone, and unless thoroughness can be practised in operations upon diseased bones in this region, affected portions will serve as nuclei for fresh invasion of tissue. Furthermore, unless some such formal procedure as that of O. is adopted, foci of the disease in adjacent bone tissue may be overlooked.

After thorough removal of all diseased parts, the two halves of the foot are restored and sutured in position by strong silk, the foot preserving its natural shape.

UPON HYDROCELE OF THE ROUND LIGAMENT.

Wechselmann (Archiv f. klin. Chirurgie, Bd. xl., p. 578). The author discusses those cystic tumors, containing serous fluid, rich in albumen, which are observed in the inguinal region of the female and which resemble the hydrocele of the male. Such collections of fluid may occur in the diverticulum of Nuck or at the vaginal process of the peritonæum, and under such circumstances in all probability have their origin in some irritation or traumatism in the neighborhood. In by far the greater proportion of cases, however, the condition is really a hydrocele of the round ligament, and has its origin during either pregnancy or the lying-in state. The diagnosis of the closed variety of the affection, as well as that which communicates with the peritoneal cavity, is easily established. Their discrimination from abscess, hernia, and cysts of Bartholini's glands

is not, as a rule, difficult. On the contrary, the diagnosis of a suppurating hydrocele of the round ligament from an incarcerated hernia may be impossible, without invasion. The treatment consists of extirpation; puncture and injection may be dangerous in the communicating variety, and simple incision involves a prolonged and tedious convalescence.

OBSTETRICS.

BY CHARLES JEWETT, M.D.,

Professor of Obstetrics and Diseases of Children and Visiting Obstetrician, Long Island College Hospital; Physician-in-Chief of the Department of Diseases of Children, St. Mary's Hospital, Brooklyn.

EXTRA-UTERINE PREGNANCY.

Matlakowski (Arch. f. Gyn., B. xxxviii., H. 3). Tait declares the destruction of the fœtus in ectopic gestation is unjustifiable. There is time enough after the rupture for the surgeon to step in, he thinks. Werth looks upon the ectopic ovum as a foreign body that should be removed. The latter authority contrary to Tait holds that the sac should be removed with the fœtus. This however may be impracticable in a broad-ligament pregnancy on account of the danger of hæmorrhage. A less experienced operator would do better to undertake the extirpation of the fœtal sac in the early months of gestation. In such cases hæmorrhage should be prevented by preliminary suture of the broad ligament between the uterus and the fruit sac and also beneath the tumor.

Werth has published statistics of 53 cases operated within six years, after the death of the fœtus. In 40 cases the sac was adherent to the abdominal wall or was made so by suture. The mortality in these cases was 14, or 35 per cent. In 11 cases in which the sac was removed the mortality was 36 per cent. In 2 cases the attempt to separate the sac was unsuccessful. Both died. It is impossible to lay down fixed rules for the treatment of this class of cases. The choice of procedure must depend on the anatomical relations in the individual case. When the sac is adherent to the abdominal wall, or can be made so, the simplest method is evacuation and drainage. A part of the sac may also be removed as practised by Martin, the edge of the remaining portion being stitched to the edges of the abdominal wound.

THE ANATOMY OF LABOR.

Barbour (Br. Med. Jour., Nov. 1, 1890). This paper presents the recent results of the author's study of the anatomy and phenomena of

labor by means of frozen sections, with lithographic illustrations. The study is based on sections made in four different cases one in the eighth month of pregnancy, the others in the first, second and third stages of labor respectively. The value of the sections is enhanced by the fact that in every case the death was due to causes independent of the labor.

The antero-posterior diameters in the four pelves (in inches) were as follows:

	1st.	2d.	3d.	4th.
Brim	4 1/8	3 3/4	4 1/8	4 3/8
Cavity	4 3/4	4 3/4	4 7/8	4 3/4
Outlet (to end of sacrum)	4	4 3/4	4 1/2	4 1/2

The first and third may be regarded as normal pelves, the second was slightly contracted, the fourth elongated antero-posteriorly.

The sections show to what extent the diameters are shortened by the soft parts during labor. The actual shortening of the antero-posterior diameters at the brim is one-half inch, in the cavity three-quarters inch, at the outlet seven-eighths inch. The oblique diameters at the brim are reduced nearly an inch.

The bladder whether distended or empty is entirely in the pelvic cavity till the first stage of labor is well established. It accommodates itself to the pressure of the gravid uterus mainly by expanding transversely. It does not rise into the abdomen until after the beginning of the second stage and then only in part, the vesical neck still remaining low in the pelvis. The lower portion, within the pelvis, is compressed by the head during the birth. The usual position of the bladder is immediately regained on the completion of labor.

The utero-rectal and utero-vesical folds of peritonæum are also lifted during the second stage and returned again to their former positions at the close of labor. The uterine muscle becomes differentiated during labor into an active, shortening, thickening portion and a passive, lengthening, thinning portion with a distinct line of demarcation between the two, the retraction ring. The retraction which takes place during a pain remains to a great extent permanent after the pain passes off. The muscular structures of the upper uterine segment therefore become progressively shorter and thicker as the labor goes on. As soon as the contents of the uterus have passed below the retraction ring no expulsive force can be exerted upon them by the walls of the birth-canal. The further expulsion is accomplished wholly by the muscular action of the abdominal walls.

The walls of the genital canal are everywhere in contact during the whole course of labor and after its close, except for the contents. This fact is significant as bearing upon the exclusion of septic air.

Observations upon the moulding of the head as revealed in the sections show, that the parietals do not overlap, as commonly assumed, during the labor. They may easily do so after birth, but the reduction of the transverse diameters during the birth is accomplished by the moulding of the head as a whole.

PRACTICE OF MEDICINE.

BY HENRY CONKLING, M.D.,

Pathologist and Assistant Visiting Physician to St. Peter's Hospital; Physician to the Department of the Chest, Brooklyn City Dispensary.

LOBAR PNEUMONIA.

Playfair (Edin. Med. Jour., Nov., 1890) analyzes a series of thirty cases of lobar pneumonia occurring in children. Fourteen of these cases were males and sixteen were females. From the table given we find the average age to be six years. The youngest patient was eighteen months. The oldest patient was thirteen years. Three of the cases were ten, twelve and thirteen respectively. The others were all under ten. There were only two cases under two years of age. The pneumonia was in the right lung in sixteen cases; in eleven cases the disease was in the left lung; three were cases of double pneumonia. In twenty-one cases the seat of the disease was at the base, while in eight cases the apex was involved. In this connection the author gives his own opinion and also quotes various authorities to the effect that *simple position has very little to do with recovery from pneumonia in children. He would expect as good a result from an apical pneumonia as from a basic.* Two cases, in which there was complete consolidation of one lung, died. In eleven cases nervous manifestations were noted. These were delirium, headache, and herpes labialis. Thirteen of the cases had had attacks of measles and whooping-cough. The duration of the disease, on an average, was fifteen days. Crises, well marked, were present in twenty-one cases, the disease subsiding in this way on the fifth or sixth day. The time of year that the various cases occurred was found to be as follows: Seven came in the winter, ten in the spring, eleven in the summer, two in the autumn. The complications were those conditions which result from involvement of the nervous system. The author considers that the high fever has an intimate connection with the sensitive nervous system of the child. Disturbances in the cerebral and spinal centres aid in producing the fever. Bronchitis was found in five cases. Its occur-

rence as a complication is therefore noted. Gastric and intestinal irritation may be prodomata or may accompany the disease. Vomiting and purging ushered in some of the cases. When such irritation came late the crisis was usually delayed. The author refers to individual cases where the physical signs were late in showing themselves. The symptoms of pneumonia may be present without signs for three or four days. These signs, although late in developing, disappeared early and rapidly. In the treatment of the cases hot moist applications were not employed. The author does not believe in their efficacy. He has found them to be uncomfortable, to increase the fever, and to prevent free expansion of the lungs. Mild counter-irritation may be employed. Syrup of tolu and syrup of chloral were used to control excessive coughing. Stimulation was freely used. Antipyrin and antifebrin in a few cases were given. Temperature was usually controlled by tepid sponging. This was used every two hours when the temperature rose to 103.5°, and would produce a satisfactory reduction.

SALIPYRIN.

This is a drug, the composition of which is 57.7 parts of antipyrin and 42.3 parts of salicylic acid. This forms a compound which is only slightly soluble in water but very freely soluble in alcohol. The principal effects noted from its use are two: The reduction of arterial tension and the lowering of the temperature. Fifteen grains may be given hourly for five doses. This will produce well-marked perspiration. The temperature will be reduced in from two to four hours and will be kept down for nearly four hours. It may be used in rheumatic fever, and has been of value in the treatment of puerperal fever. Great relief has been obtained from it in sciatica. An occasional urticarious rash sometimes appears during its administration. This, however, is of short duration.

GLYCERIN SUPPOSITORIES.

Polubruiski (Deutsche med. Zeit.) advises that glycerin suppositories are useful under the following conditions:

1. Constipation due to hardened fæces in the rectum.
2. Intestinal impaction in large intestines.
3. Pressure on the rectum from tumors.
4. To prevent straining at stool.
5. In children.
6. To hasten and increase ordinary evacuations.

A mere local irritation is the probable cause of the action.

ALBUMINURIA AND LIFE ASSURANCE.

Saundby (Birmingham, England,) teaches that albuminuria may exist in a healthy person for a long period, and that it, in itself, should

not be regarded as an absolute contraindication to life assurance. There must, however, be nothing abnormal but the albuminuria and an entire absence of a family, direct or collateral, history of Bright's; no acute nephritis, past or present; no cardiac hypertrophy; no hard pulse; no retinal changes; age not over forty; no œdema under the eyes; no cirrhosis; urea normal in amount. Such cases may be considered as safe risks, in the author's opinion.

PREVENTIVE MEDICINE.

BY E. H. BARTLEY, M.D.,

Professor of Chemistry and Toxicology, and Lecturer on Diseases of Children, Long Island College Hospital.

PREVENTION OF SCARLET FEVER.

In a paper read before the American Pædiatric Society, and published in the "Archives of Pædiatrics," December, 1890, p. 921, Dr. J. Lewis Smith calls attention to the chief means of preventing the spread of the contagion of scarlet fever. He calls attention to the fact that as the area of contagiousness of this disease extends but a few feet from the patient, isolation is very effective—more effective than with measles and pertussis. But this small area of contagiousness of scarlet fever is more than overbalanced by the tenacity with which the poison adheres to clothing and apartments. He cites examples of how the disease may be carried upon clothes of physicians, nurses, washerwomen and school children, by books, toys, letters, etc. He then takes up the question of after-disinfection, and shows that the usual method by burning sulphur is inefficient. He believes that to prevent the spread of scarlet fever, as well as of diphtheria, we must not depend upon the after-disinfection, but should employ disinfection throughout the whole course of the disease, both in the room and upon the patient. He recommends for the disinfection of the room the following mixture, to be evaporated in a basin with water:

℞ Acid Carbol., - - - -
Ol. Eucalypti, - - - - aa ʒ i.
Spts. Terebenth, - - - - ʒ vi.
M.

Sig.—ʒ i. added to a quart of water and kept simmering on the stove.

At the same time he employs inunctions over the entire surface, every three hours, with the following:

℞ Acid Carbol., - - - -
Ol. Eucalypti, - - - - aa ʒ i.
Ol. Olivæ, - - - - - ℥ vi.
M.

He also recommends washing the mouth and fauces frequently with a two-grain-to-the-pint solution of corrosive sublimate. He advises, in addition, constant ventilation of the room by an open window. The cautious physician in attending scarlet fever will always bear in mind the possibility that his person or clothing may become infected, and be the means of carrying the poison to other children, and he will not go directly from such a patient to a child with another sickness, or a midwifery case, without first washing his hands, hair and face in an antiseptic solution, and changing his outer apparel. He is of the opinion that although the means employed by health boards for domiciliary disinfection are inadequate, it is the duty of attending physicians to see that they are carried out, and to suggest such other means as his judgment may deem proper.

THE PREVENTION OF DIPHTHERIA.

In a paper upon this subject, read before the American Pædiatric Society and published in the Archives of Pædiatrics, Dr. Caillé discusses this disease as it occurs in tenement houses, and the means of isolation and disinfection as practised in New York City, etc. Under the head of personal prophylaxis, he urges the importance of a daily toilet of the naso-pharynx by means of a mild antiseptic wash. He quotes the experience of Dr. Hance, at the Nursery and Child's Hospital in New York, with this method of preventing the spread of this disease, which seems to be a strong recommendation of this very rational procedure.

The author closes with the following *résumé*:

1. In the present state of our knowledge, the possibility of preventing diphtheritic sepsis cannot be denied.

2. As one of the means of securing this end, the daily inspection of school children is necessary.

3. The municipal control of diphtheria in large cities is inadequate, and methods of personal prophylaxis are more apt to prevent infection.

4. A daily prolonged toilet of the naso-pharynx by means of weak antiseptic solutions is a trustworthy method of prevention in the absence of filthy carious teeth and enlarged and inflamed tonsils.

5. The naso-pharyngeal toilet is indicated for all those who are exposed to diphtheritic infection, and also as a routine treatment in every case of chronic naso pharyngeal catarrh, pertussis, scarlatina and measles.

6. It is, in my opinion, the duty of authorities and the medical practitioners to act in accordance with the above views.

CONTAGIOUSNESS OF DIPHTHERIA.

As there are physicians who even to-day deny that diphtheria is contagious, the following statistics, taken from the last Annual Report of Dr. C. V. Chapin, Superintendent of Health, of Providence, R. I., may be of interest to such:

No. of families in which there was more than one child,	121
" these in which there was more than one case,	47
" children in all the above families,	472
" these children attacked,	231
" additional families in the same house,	38
" children in these families,	95
" these additional families attacked,	7
" children in these families attacked,	11
" tenements which were fumigated,	57
" cases where, after fumigation, the disease spread to other families in the house,	1
" children who were removed as soon as the disease made its appearance,	26
" children attacked on their return,	0

This table indicates that diphtheria is a disease of about the same degree of contagiousness as is scarlet fever. About one-half of those under fifteen years of age who are exposed directly to it are attacked, and it exhibits about the same tendency as scarlet fever to extend to other families in the same house. The need of precautionary measures during convalescence is not necessary for so long a time as in scarlet fever. Investigation showed that, apparently, one attack gave no immunity against another subsequent attack; for, of fifty-one persons who had had the disease and who were exposed, twenty-five contracted the disease a second time. In most cases the first case that occurred in a family was more severe than those which followed.—(*Abstract from Sanitary Inspector, Aug., 1890.*)

INOCULATION AS A MEANS OF MITIGATING THE SEVERITY OF MEASLES.

Dr. Hugh Thompson advocates the inoculation of children with the virus of measles, in the "Glasgow Med. Jour," June, 1890. He

records thirteen experiments made upon young children. He concludes that while the inoculation with blood is objectionable, it is more certain than the use of serum from a blister when the efflorescence is abundant. He claims that by implanting the virus in a part well suited for its development, and that a non-vital part, we create a local disease which spoils the blood of persons so inoculated, so that it becomes an unsuitable cultivating medium for the organisms, and if the disease be contracted, it is mild in character. He recommends that these inoculations be practised on all young children; and advises that it be done in the months of September and October next following the birth.

PATHOLOGY.

BY JOSHUA M. VAN COTT, JR., M. D.,

Pathologist and Lecturer on Histology and Pathological Anatomy, Long Island College Hospital; Associate Director of the Department of Histology and Pathology, Hoagland Laboratory; Pathologist to the Brooklyn Throat and Nose Hospital.

TABULATED FINDINGS IN FIVE HUNDRED URINALYSES.

Mr. J. B. Thomas, Jr. (Hoagland Laboratory, Department of Histology and Pathology, November, 1890), tabulated five hundred analyses of urine from all sources, including the Long Island College Hospital, made in the department of pathology, with the following results (see table appended):

A.—Of the total number of cases, over three-quarters are acid, thirteen per cent. only being alkaline, and three per cent. not recorded. This is of interest in showing that most urines are available for microscopic examination when freshly passed, and draws attention to the fact that casts are dissolved in alkaline urine. Jaksch[1] recommends adding to the urine a little chloroform in order to prevent decomposition.

This is, of course, all-important, as the whole question of diagnosis may hang on the presence or absence of casts.

B. Albumen—It will be seen that twenty-three and six-tenths per cent. of the cases contained albumen, and that less than six per cent. of them contained it in marked quantity; while about eighteen per cent. contained it in traces.

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[1] Jaksch: Klinische Diagnostik, 1889, p. 221:

℞ Chloroformi..... c.cm. 5-7.5 Aquæ destil..... l. 1

M. Sig.—c.cm. 20-30 to be added to the urine to prevent fermentation.

TABULATED FINDINGS IN FIVE HUNDRED URINALYSES.—J. B. Thomas, Jr.

	A. Reaction.	B. Albumen.	C. Sugar.	D. Deposit.	E. Crystals.		F. Leucocytes.	G. Epithelium.		H. Casts.		J. Sundries.	
Acid	393	+ 29	+ 9	+ 280	Triple phosphates	84	+ 91	Squamous.	177	All kinds	16	Red Blood	27
Alkaline	65	— 89	— 7	— 166	Lime oxalate	51	— 314	Renal	44	Hyaline	123	Mucus	181
Neutral	27		o	22	Uric acid	35		Cystic	53	Ancient epithelial	31	Bile	12
Not recorded	15		*	32	Amorphous urates	93				Nucleated	46	Fat globules	3
					Ammonium urate	23				Hyaline only	29	Fibrin	2
					Amorphous phosphates	55				Granular	33	Hæmatin	1
					Calcium sulphate	3				Hyaline & granular only	33		
Totals	500	118	16	500		344	405		274		139		226
Percentages.	78.6	+ 5.8	+ 1.8	+ 56.0			+ 18.2		35.4		3.2		5.4
	13.0	— 17.8	— 1.4	— 33.2			— 62.8		8.8		24.6		36.2
	5.4		o	4.4					10.6		6 2		2.4
	3.0		*	6.4							9.2		0.6
											5.8		0.4
											16.6		
											6.6		0.2
Totals	100.0	23.6	3.2	93.6			81.0		54.8		27.8		45.2

Specific Gravity.

Average	1018.3
1 10 or under	51
1028 or over	94

Casts.

With low specific gravity	48.	= 9.6 %
With high specific gravity	70.	= 14.0 %
With albuminuria	49	= 9.8 %

Explanation of Signs.

+ = Quantity marked. — = Quantity slight.
o = None. * = Not recorded.

This has a twofold significance: first, that, as will be seen below, there are enough cases in which pus was found in considerable amount to more than account for the presence of albumen in traces; second, because, as will also appear below, there are enough cases in which casts are found to more than outnumber all the cases of albuminuria, and far more than those in which albuminuria is marked in quantity. This goes to show that casts do not necessarily accompany albumen, and *vice versa*.

C. Diabetes.—Sugar is present in a little over three per cent. of the cases, and of these more than half were pronounced.

D. Deposit.—Over eighty-nine per cent. nearly of the recorded cases contained deposit of some sort or other. Of these fifty-six per cent. were marked, thirty-three per cent. slight. This deposit must be formed of either extraneous dirt, precipitation of crystals or histological elements from the genito-urinary tract. The table shows that the great preponderance of deposits is formed of crystals and morphological elements.

E. Crystals.—Of these there are more than enough to account for the thirteen per cent. of alkaline cases. This is explained by the fact that the decomposition of urine and its conversion from an acid to an alkaline fluid begins generally at the bottom of the vessel; so that triple phosphates will occasionally appear in a deposit where the great bulk of urine is really acid, only the lower stratum being alkaline. Something over ten per cent. of the cases reveal oxaluria.

F. Leucocytes.—These are far the most prevalent of the morphological elements; and of the eighty-one per cent. of cases showing their presence, eighteen per cent. show them to be present in marked quantity.

This corresponds very closely with the percentage of triple phosphates and squamous epithelium; and cystitis of rather marked intensity may be inferred in this number.

G. Epithelium.—More than fifty per cent. of all cases show epithelial cells to be present—free. Nearly nine per cent. come from the kidney, over ten per cent. are definitely stated as coming from the bladder.

H. Casts.—It is significant that more than one-quarter (27.8 per cent.) of all specimens contain casts. This is significant in its relation to the percentage of albuminuria, for about twenty-four per cent. of the cases contain albumen, and of these scarcely six per cent. are marked, while the remaining eighteen per cent. of slight albuminuria are accounted for by the more than eighteen per cent. of cases containing considerable pus: demonstrating clearly that casts are frequently present with no albumen at all.

Six per cent. of all cases show simply hyaline casts; the remainder show cast material composed of the morphological elements of the renal parenchyma in varying stages and kinds of degeneration.

Forty-nine cases of casts *with* albuminuria are noted. Of these twenty-nine may be directly accounted for, in the table, with marked albuminuria, while the others may be classed with those containing pus in marked quantity.

Nearly ten per cent. of cases show casts in conjunction with low specific gravity, and it is an instructive fact that while the actual number of these cases is forty-eight, the total number of cases in which the specific gravity is very low is fifty-one.

The conclusion here would seem to be that with the morphological evidence of degeneration of the renal parenchyma, as evidenced by the presence of cast material, comes the further evidence of marked disturbance of the eliminative function of the kidneys. This, indeed, must be so; for if the form elements upon which an organ depends for its functional activity be impaired, it is a self-evident proposition that the functional activity itself must be modified.[2]

In this connection it is further to be noted that recent observations go to prove the presence, in many specimens of nephritic urine, of pepsin, which dissolves the cast material they contain by the process of digestion. Sehrwald[3] remarks upon this point that the digestion of cast material may occur even in the renal tubules. This is quite sufficient to account for the three cases of low specific gravity without casts.

It will be further seen that nearly twenty per cent. of the cases have a very high specific gravity, and of these fourteen per cent. contain casts. Of the remaining six per cent. something over three per cent. are diabetic, while the rest are probably due to true uric-acid diathesis. The *rationale* of the high specific gravity with casts would at first seem difficult; for it has already been observed that casts are generally evidence of destruction of the functional elements of the renal tissue—only the hyaline casts being possible without such parenchymatous degeneration—and with this destruction must come modified function, namely, lessened urea elimination.

The apparent fallacy here is due to another set of factors playing an important role in the ætiology of renal disease, namely, the heart and lungs. Indeed, renal stasis[4] is very common, and depends for the most part upon some obstruction of the general circulation, as a result of cardiac lesion, either valvular or myocardial, or some pulmonary

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[2] Ibid., p. 227. Rosenstein: Die Nierenkrankheiten, p. 45 et seq.

[3] Sehrwald: Deutsche med. Wochenschrift, 1890, No. 24.

[4] Jaksch, Rosenstein, Strümpell, Delafield and Prudden.

affection which has embarrassed the right heart primarily: so that the water elimination and the elimination of the salts of the urine may be greatly altered in their relative proportion through disturbance of the cardio-vascular mechanism, and a urine may be of a relatively high or low specific gravity because of an accelerated or obstructed flow of blood.

This lends very valuable aid to diagnosis; for if a given sample of urine with high specific gravity be found to contain no sugar, but, on the contrary, the daily quantity is diminished and casts are present, the heart and lungs should be at once suspected, as some form of lesion of one or both is almost certain.

Passive renal hyperæmia means two things: First, cardiac insufficiency, either primary or as a result of pulmonary disease; second, sooner or later a structural change must occur in the kidneys, which will eventually give rise to symptoms of impaired renal function.

The very important revelation made by this tabulation, of the fact that the presence of casts is not at all proportioned to that of albuminuria, and that the relation of casts to specific gravity is much more definite, while not new, nevertheless emphasizes the necessity for thorough microscopical examination of all urine, and, further, the quantitative estimation of urea whenever casts are present with either high or low specific gravity.

This is of fundamental importance as a means of determining, not only the existence of renal disease, but also the probable nature and extent of it, as well as the presence or absence of cardiac or pulmonary complications. On this point the best observers are unanimous.

But there would seem to be another potent reason for careful microscopical examination of urine, and, where casts are found, for quantitative estimation of urea.

It is of the utmost importance, from a prognostic standpoint, that the diagnosis of renal disease should be made at the earliest possible moment, for the arrest of pathological processes in the kidney is much more difficult as they are more chronic; and certainly the positive inclusion or exclusion of nephritis of any type is essential to the proper conception and treatment of lesions of other organs.

Finally, inasmuch as the kidneys are the great gateways for the elimination of by far the major portion of the true products of retrograde metamorphosis of the body tissues, it is not very surprising that these organs should be so frequently the seat of disease. Indeed, it would seem that with all the hard usage they get from imprudent eating, and the disturbance of blood supply from reflex neuroses due to the very prevalent over-activity of the great cerebro-spinal centres in this age of

hurry and keen competition, it would really seem that the kidneys ought to show an even greater ratio of disease.

The prime teaching of this tabulation we believe to be that the mere examination of urine for sugar and the presence or absence of albumen is not at all adequate to determine the presence or absence of renal disease. It is the imperative business of every practitioner of medicine to subject all cases where the least suspicion of renal complication exists to a most rigid microscopical examination, and, where cast material is present, to a thorough estimate of urea, that the daily function of the kidneys may be accurately determined.

OPHTHALMOLOGY.

BY RICHMOND LENNOX, M.D.

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MYOPIA.

At the annual meeting of the Ophthalmological Section of the British Medical Association, held in July, 1890 (Am. Jour. of Ophthal., Oct., 1890), an interesting discussion of the causes, prevention and treatment of myopia was arranged, the subject being opened by Priestley Smith and Richardson Cross. The former concluded that myopia is always a defect, often a disease. It is entirely incurable, but largely preventable. Its progress can be, and often is, accelerated by improper use of the eyes, and retarded by judicious interference. In the discussion that followed these papers all were agreed that great evil resulted from improper ocular hygiene in the schools and during the period of bodily growth, and emphasized the importance of individual effort in popular instruction on this subject, as well as conjoined action on the part of the societies through the State boards. An hereditary tendency to myopia seemed undoubted, and by care in the individual cases now an improvement in future generations might be hoped for. Myopic parents should be especially careful of their myopic children. The selection of glasses was fully discussed, and the advisability of full correction in patients with good accommodation, the same glass being used for near and distance, was generally though not unanimously maintained. While there were minor differences of opinion as to the value of prisms, etc., all were practically agreed as to the value of correcting an existing astigmatism, and that myopia, even of moderate degree, should be regarded with suspicion in young people.

PYOKTANIN.

Alt (Am. Jour. of Ophthal., Oct., 1890) reports his results with Merck's methyl violet, used as Stilling has suggested in crayon or solutions of from 1–1000 to 1–2000. In corneal ulcers it proved itself on the whole less efficacious than other remedies, though the patients invariably "felt better" after its use. In acute and subacute purulent otitis media it was very satisfactory, discharge being favorably modified or controlled and granulations or even large polypoid formations influenced. It was also beneficial in furuncle of the external auditory meatus. Alt failed to find the staining of the iris and contents of the anterior chamber described by Stilling. He concludes from his own experience that pyoktanin is no better than bichloride of mercury, perhaps not so good, and that it is a somewhat disagreeable thing to handle on account of the staining. It is probably as good as bichloride after operations, and decidedly better for sutures.

[Numerous adverse opinions have appeared in the foreign journals, and my own experience has not given me much encouragement in its use.—L.]

KERATITIS PUNCTATA OR DESCIMITIS.

Lawford (Roy. Lond. Oph. Hosp. Rep., 1889, Part IV.) gives the different views held as to the nature of keratitis punctata, whether it is an independent disease of Descemet's membrane, or simply a secondary manifestation of inflammation elsewhere. From the examination of various specimens, he is convinced that those authors are right who believe the cellular collections to be due to emigrated cells rather than to proliferation of the endothelium of Descemet's membrane. Some participation in the process is certainly taken by this endothelium, however, as at the affected points the cells lose their sharp outline and appear swollen, but these changes are secondary. It would otherwise be difficult to explain the usual wedge shape of the corneal deposits, and then, too, similar deposits are sometimes found on the lens capsule. While the emigration of cells undoubtedly comes from the uveal tract, it is not yet possible to say from what portion, whether the iris, ciliary body or choroid. In those cases in which the iris appears quite normal the microscope might show some involvement.

GYNÆCOLOGY.

BY WALTER B. CHASE, M.D.

THE DIAGNOSIS AND TREATMENT OF CERTAIN ABDOMINAL DISEASES, PRINCIPALLY CHARACTERIZED BY SYMPTOMS OF PERITONITIS.

Dr. Horace T. Hanks (N. Y. Medical Journal, October 18, 1890). Under the head of treatment he says: Where the surgical indications

had not become clear he would treat a case characterized by symptoms of peritonitis with saline cathartics, sufficient codeia to give comfort (opium was objected to, as being constipating), the ice-coil where fever was high, and leeches; perhaps enemata might have to take the place of salines. These cases should constantly be watched, since the abdominal surgeon might have to be called at any time.

SURGERY OR ELECTRICITY IN GYNÆCOLOGY?

The November (1890) issue, "Annals of Gynæcology and Pæd.," contains a very spirited article on the above topic by Dr. Anna M. Fullerton, physician-in-charge of Woman's Hospital, Philadelphia, in which with great vigor the writer espouses the surgical side of the question. Recent surgery, with its marvelous advances in abdominal and pelvic work, has shown the evils of the claim of the value and safety of electricity—

"First. By bringing to light conditions undreamed of hitherto, by physician or surgeon, proving that masses in the pelvis may mean one of twenty or more pathological conditions—salpingitis, ovaritis, salpingo-ovaritis, abscess of tube or ovary, hydrosalpinx, hæmatosalpinx, extra-uterine pregnancy, small dermoids, etc.—some of which conditions are absolutely hopeless as to cure save by the knife.

"Second. By challenging the electrician to show by what occult powers he can determine the exact character, mixed, multiple or simple, of the condition which exists in any given case; or the propriety of directing his current upon it.

"Third. By proving clinically and by post-mortem specimens, facts observed at the operating table, yielding incontrovertible evidence of the dangerous character of electrical procedures in gynæcology."

The difficulties of diagnosis of intra-abdominal and pelvic disease are dwelt upon and the necessity of exploratory incision enforced.

Quotations showing errors in diagnosis of some very noted gynæcologists are given, and the dangers of traumatic peritonitis from electricity are mentioned, combating the "dangers and uncertainties of abdominal section." The author quotes the brilliant results of Dr. Price's 117 cases of abdominal section, "performed in the slums and alleys of Philadelphia," with but a single death, and contrasts it with Dr. Bradford's report of Dr. Massey's work in dispensary clinic, figures of which were not given, closing with conclusions, a result of several years' work in the Philadelphia Woman's Hospital, after observation of many cases:

"First. That temporary conditions of acute pelvic inflammation, due to non-septic causes, are quick, as a rule, to respond to the ordinary palliative measure, for allaying inflammation, such as the use of

salines, rest in bed, etc. That if properly treated they are apt to get well without leaving any permanent lesion behind them.

"Second. That for the treatment of pelvic disease the use of electricity, even in skilled hands, has proved uncertain in its results, and is fraught with possibilities so dangerous as to preclude its use as a therapeutic agent in the manner at present advocated.

"Third. That when the history of a case and careful and intelligent examination prove a pelvic malady to be of long standing, and a source of persistent ill health, it is poor practice to waste time in prolonged palliative treatment when an exploratory incision can clear up the obscurity and prepare the way, at least, for intelligent management.

"Fourth. That in acute cases, where masses are found in the pelvis, and the accompanying history and symptoms point to the probability of the existence of conditions which delay may render dangerous, there should be early and prompt resort to operation.

"Fifth. That for the attainment of satisfactory results from such operations, the skilled workman is required. . . .

"Sixth. That all gynæcologists should not consider it their duty to attempt this work, which constitutes a distinct and comprehensive branch of surgical science.

"Seventh. That all physicians should be more thoroughly trained to appreciate the existence of conditions demanding the care of a specialist, and should be more disinterested in referring such early to the proper sources for help."

As regards method, asepsis is preferred to antisepsis.

THE DIAGNOSIS OF ECTOPIC PREGNANCY.

The "N. Y. Medical Journal," October 18, 1890, gives remarks of Dr. Baldy, of Philadelphia, before the American Gynæcological Society. The following symptoms are strongly suggestive of ectopic pregnancy:

1. A spurious flow, simulating menstruation, first lighter and then darker than normal menstrual discharge, containing clots and shreds.

2. Pain—intermittent. cramp-like, increasing in severity—low down in the pelvis, which may be sufficient to occasion collapse.

3. The discharge of shreds of decidua without or with clots.

4. The general signs of pregnancy.

5. . . .

6. Vaginal discoloration, as in normal pregnancy.

7. The cervix was sometimes enlarged and os patulous.

8. The fundus was enlarged, and crowded forward or backward.

9. The uterine appendages sometimes showed a cyst on one side, and, though it pulsated, was not positively diagnostic of uterus, and appendages sometimes showed a cyst on one side.

10. The patient's belief as to pregnancy should be taken into account.

11. Some cases show elevation of temperature and accelerated pulse.

12. At the period of rupture, great pain and collapse.

DISEASES OF THE SKIN.

BY SAMUEL SHERWELL, M.D.,

Clinical Professor of Dermatology, Long Island College Hospital; Attending Physician, Brooklyn Hospital; Surgeon to Skin and Throat Department, Brooklyn Eye and Ear Hospital.

ON THE NATURE AND TREATMENT OF ECZEMA.

Unna, Hamburg (British Jour. Dermatology, Aug., 1890). Under this heading, in a long and able article, Unna expresses his belief that many if not most eczemas are parasitic in origin and nature, and naturally from these premises advocates treatment, and that long continued, by parasiticidal measures. This paper was read in the Dermatological Section of the British Med. Society, July, 1890, and was vigorously opposed by most of those who took part in its discussion. Unna is always vigorous and interesting, however one may differ with him as to theory or practice.

IMMIGRANT DERMATOSES.

Prof. Jas. C. White, Harvard (Journal of Cutaneous and Genito-Urinary Diseases, Oct., 1890). This paper was read by the author at the last meeting of the American Dermatological Association, Sept., 1890, and in it a series of very important and interesting observations are given as regarding diseases of the skin prevalent, with and imported by the poorer classes of Europe, etc., seeking these shores. He classifies his remarks under the following headings, viz.:

(1) Direct effects of the voyage.

(2) New impressions, *i. e.*, the new physical and psychical impressions they suffer from, to which they had before never been exposed, as for instance of physical; mosquito poisonings, intense heat, etc.

(3) Imported affections, as scabies, favus lupus, leprosy, etc.

CONTRIBUTIONS TO THE STUDY OF DRUG ERUPTIONS.

T. Colcott Fox, London, Eng. (British Journal Dermatology, Nov., 1890). A good though rather esoteric article. He quotes largely from

American writers on the same subject, as White, Morrow, Van Harlingen, etc., and while not neglecting reference to the older, commoner and better known eruptions from these influences, refers most to those caused by internal or external medication, etc., and dwells particularly on those of the various new drugs so recently come into pharmaceutic use, as those of the synthetically built-up remedies. Also refers to those caused by the almost universal practice in these days of antiseptic surgery and antisepsis of wounds.

BEHRENDS' DIVISION OF DRUG RASHES INTO SPECIFIC AND DYNAMIC GROUPS.

H. G. Brooke, Manchester, Eng. (British Jour. Derm., Oct., 1890). Both this and preceding paper were read in the Section at the last International Medical Congress, and the same criticism will apply to both, that though full of interest to those engaged in looking up these matters, they are food for the illuminati chiefly.

THE TINEAS—DESCRIPTION AND TREATMENT.

M. Quinquaud, Paris (Gazette des Hôpitaux, Sept., 18–25, Oct., 2–9, 1890). Under the above dates in the journal given, a good résumé will be found of the diagnosis, prognosis and treatment of the various vegetable parasitic disorders. The chapters on treatment will be found specially interesting as embodying in a general way the French methods.

NOTES ON PILOCARPINE IN DERMATOLOGY.

Hermann G. Klotz, New York (Jour. of Cut. and Genito-Urin. Diseases, Nov., 1890). The author in this paper, read at the last meeting of American Dermatological Association, gives a valuable *résumé* of the literature of this drug, mentions those who have recommended its use, and the various diseases for which it has been used dermatologically, and finally give cases of his own, in which it seems to have been exhibited with good effect.

In concluding his paper he says: "In the light of the more recent theories of the physiology of the sweat secretion (referring by this to Unna's assertion that the usually received opinion that perspiration is due to functional activity of the sudatory glands alone is wrong; and that, on the contrary, the exuded liquid is the result of many more factors, and a very complex subject.—S. S.) the use of pilocarpine in pachydermatous and xerodermatous conditions and diseases of the skin is strongly indicated, and deserves to be subjected to renewed trials; but recommends small dosage and long continuance, as has been, as he states, already recommended by Pick.

PROSTITUTION AND ABOLITIONISMUS.

"Letters of B. Tarnowsky," published by Leopold Voss, Hamburg, 1890. Von Turkheim, of Hamburg, gives in the "Monatshft.," Vol. XI., No. 9, p. 399, a somewhat detailed review of this (to sociologists and others) interesting book. It has naturally a special interest to dermatologists and syphilographers. He, Dr. T., is very pronounced in his views of the obligatory localization and official control and regulation of this evil; and while conceiving this regulation to be consistent with all humanitarian, moral and religious convictions, believes it also to be of the highest importance to the physical well being of the community.

BACTERIOLOGY.

BY B. MEADE BOLTON, M.D.,
Director of the Department of Bacteriology, Hoagland Laboratory, Brooklyn.

OZONE AS A DISINFECTANT.

Ozone gas is by no means as valuable a disinfectant as has been claimed for it. Hermann Sonntag (Zeitschrift f. Hygiene, Bd. 8, p. 95, 1890) has put it to the test on cultures of various micro-organisms, and finds that its germicidal power is comparatively weak. Indeed, it only begins to act at all when there are 13.53 mgrms. of it to a litre of air, which is equivalent to 63 per cent. by volume. Even with this amount the action is very uncertain. It is certain, therefore, that the amount ordinarily found in the air—1 mgrm. to 100 cubic meters of air (Davy, Compt. Rend., t. lxxxi., p. 900)—or even the small amount generated in a room by evaporating turpentine, ether, water, etc., can certainly have no effect whatever.

In a few cases apparently favorable results have been obtained by different experimenters; but, as Sonntag abundantly shows, the methods employed in every case permitted the presence of other substances, especially chlorine gas. This, of course, vitiates the results. Sonntag's experiments were conducted with every precaution and with the best bacteriological and chemical appliances. Tests were made with the pus staphylococci, anthrax spores, blood from an animal which had died of anthrax (and hence containing no spores), and with the bacilli of mouse septicæmia. Cultures of these micro-organisms were subjected to the action of ozone under various circumstances. In some cases cultures were dried on silk threads, according to Koch's method, and in others they were mixed with finely sifted dust. In some experi-

ments they were dry, in others moist. The gas was made from purified oxygen by means of a Werner Siemens apparatus (Poggendorff's Annalen, Bd. 102, p. 120). The ozone was first passed through U tubes, containing pumice-stone saturated with sulphuric acid and set in a cooling mixture of ice and salt. The amount of the gas was carefully estimated for every experiment. In some cases the gas was allowed to remain acting on the cultures for twenty-four hours in sealed tubes; in other cases the ozone was passed through for twenty minutes on four successive days. In short, the tests were very complete.

Sonntag's experiments with aqueous solutions of ozone gave more favorable results, but he used the Lender's ready prepared ozone water. This water probably contains other gases which act upon micro-organisms; so Sonntag does not regard these results as conclusive.

MEDICAL JURISPRUDENCE.

Legal Qualifications for the Practice of Medicine.

BY SIDNEY V. LOWELL.

The Supreme Court of the State of Vermont has lately been petitioned by a lady, named Mary J. Townshend, for a writ of mandamus directing the Censors of the Vermont State Eclectic Medical Society to issue to her a certificate authorizing her to practise medicine within that State.

The statutes of Vermont provide, as do the laws of other States, that every medical society chartered by the Legislature "shall issue certificates to physicians and surgeons who furnish evidence by diploma from a medical college, or university, or by certificate of examination by an authorized board, which satisfies them that the person presenting such credentials has been, after due examination, deemed qualified to practise the branches mentioned in the diploma or certificate."

The petitioner based her application on a diploma issued by the "Vermont Medical College." That institution was organized under the general laws of the State authorizing the formation of corporations to "establish and maintain literary and scientific institutions."

The petitioner claimed that the practice of medicine was a science; that to grant diplomas was an ordinary power going with all educational institutions of a high order; that having such diploma, she was entitled to be licensed by the Medical Society.

The Court, in its opinion, takes the broad ground that the granting of "degrees," either of M.D., LL.D., D.D. or A.B. is a matter apart

and beyond the powers of any institution unless it has been specially conferred by the State. The Court say that it was not intended to allow the State to be flooded "with doctors of medicine, doctors of law, doctors of divinity, masters of arts, civil engineers and all the other various titles that everywhere in the civilized world have signified high attainments and special equipment for professional work;" that to so hold "is to liken it to the witty French minister, who threatened to create so many dukes that it would be no honor to be one, and a burning disgrace not to be one."

On the reasoning of this case—which is likely to be respected everywhere, being a unanimous decision of the full bench of a State whose judicature is highly esteemed—it is improbable that licenses to practise medicine will ever be required to be issued unless on diplomas issued by colleges expressly authorized so to do, and not under any "implied" authority as a graduating certificate.

It will be noticed that the applicant was a woman. A woman physician once sadly admitted to the writer that the particular form of practice which she carried out was sought for by women who had not the requisite attainments to obtain a degree in the general practice. Her remark made a deep impression on me at the time, to the effect that there should be no slight and easy door to the practice of medicine under any guise whatever. It is to be feared, however, that any legislation necessary, as in the case I have cited from Vermont, would be as easily attainable as many other equally objectionable things have been. The action of the Legislature of Massachusetts in recent years, in giving the name and powers of a college to an institution far below the grade of the existing colleges, was a discouraging sign in a State of which better things might have been hoped for. Still, vigilance may do much.

NEW BOOKS AND BOOK NOTICES.

All books received by the JOURNAL *are deposited permanently in the Library of the Medical Society of the County of Kings.*

A TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By J. Lewis Smith, M.D. Seventh edition, thoroughly revised, with 51 illustrations. O, c., pp. 900.

This treatise on children's diseases is so well known that it seems almost a work of supererogation to call attention to it. We should under ordinary circumstances feel that we had done our full duty in simply mentioning it. But the seventh edition is not a reprint of those which have preceded it. It is in all

essentials a new book, so thorough has been the revision. Indeed, to reprint in 1890 what was published in 1886, the date of the sixth edition, would have been an imposition, so many and so important are the advances made since that time. We find among the new matter introduced into the present edition, Conjunctivitis, Icterus, Sepsis, Umbilical Diseases, Hæmatemesis, Melæna, Sclerema, Œdema, Pemphigus, Epilepsy, Tetany, Appendicitis, Typhlitis, Perityphlitis, and a most admirable paper on Intubation by Dr. Joseph O'Dwyer. Important matter has also been added relating to the etiology and treatment of the diseases discussed in former editions. This book is, without doubt, the best in the English language treating of the diseases of children.

A DICTIONARY OF PRACTICAL MEDICINE BY VARIOUS WRITERS. Edited by James Kingston Fowler, M.A., M.D.; Fellow of the Royal College of Physicians, etc. O, c., pp. 942. Philadelphia: P. Blakiston, Son & Co., 1890.

This work is the result of an attempt to present in a somewhat concise form an account of the more important subjects comprised under the head of Practical Medicine, including also the Diseases Peculiar to Women. Among the forty-two contributors to the volume we notice many well-known names: E. M. Crookshank, Professor of Bacteriology at King's College; T. C. Fox, Physician for Diseases of the Skin, Westminster Hospital; Victor Horsley and J. Bland Sutton are perhaps the best known to Americans. One prominent feature of the book appears under the head of Treatment, which concludes each article, with the statement of the exact doses and combinations of the various drugs recommended. This will commend it to young practitioners, and to those whose materia medica is somewhat rusty.

A MANUAL OF AUSCULTATION AND PERCUSSION: Embracing the Physical Diagnosis of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M.D., LL.D. Fifth edition; thoroughly revised by J. C. Wilson, M.D. Illustrated with woodcuts. D, c., pp. 268. Philadelphia: Lea, Brothers & Co., 1890.

It is, perhaps, not too much to say that this Manual of the late Professor Flint has held a leading position among the manuals of auscultation and percussion ever since the first edition appeared many years ago. Prof. Flint was, as all who knew him will testify, a man wonderfully gifted in diagnostic powers, and equally so in his ability to impart to others the knowledge which he possessed. He was eminently a teacher, both when he spoke from his college chair and when he put his pen to paper, and in these respects was only equalled, but not surpassed, by Watson and Dalton. Other authors have given us more voluminous manuals than this of Flint, but for the student we have never seen one which was in all respects better adapted to his wants.

MISCELLANEOUS.

SCIENTIFIC STUDY OF INEBRIETY.

The American Association for the Study and Cure of Inebriety, has arranged to hold a series of monthly meetings, in the hall of the New York Academy of Medicine, for the medical study of Alcohol and Opium Inebriety. Special phases of this subject will be discussed each evening in papers by leading authorities, followed by remarks and reports. At the first meeting, December 10th, "The Relation of Life Insurance to Alcohol and Opium Inebriety," was presented. The following papers will be read during the coming year:

January 14, 1891—"Alcohol: Its physiological and pathological action, and its use and abuse in medicine," will be discussed. "Inebriety, its Etiology and History," will be the topic for February 18th. "The Curability of Inebriety, its treatment and relation to other diseases," will be the subject for March 18th. In April, "The Medico-Legal Relations of Inebriety" will be studied.

It is the purpose of this Association to confine these discussions entirely to the medical and scientific side, with the view of reaching some general conclusions from which more accurate researches can be made.

A cordial invitation is extended to all medical and scientific students to be present and join in this special study of the "Drink Disease and its Problems."

BROOKLYN'S POLICE CENSUS OF 1890.

Ward.	*Pop.*	*Ward.*	*Pop.*
1	22,178	15	28,128
2	8,524	16	46,823
3	19,590	17	44,021
4	13,303	18	82,072
5	18,981	19	38,201
6	40,558	20	25,476
7	38,758	21	53,239
8	34,608	22	53,171
9	20,007	23	31,177
10	36,097	24	17,967
11	22,935	25	48,301
12	28,041	26	30,358
13	23,172		
14	28,260	Total	853,945

As examples of the style of the writings of Hippocrates, we append his description of what is called the FACIES HIPPOCRATICA, or the dying face:

"A sharp nose, hollow eyes, collapsed temples; the ears cold, contracted, and their lobes turned out; the skin about the forehead being rough, distended and parched; the color of the whole face being green, black, livid or lead-colored."

The Hippocratic Oath, or indenture between the preceptor and his pupil, is another fair illustration of his style:

"I swear by Apollo the physician, and Æsculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgement, I will keep this oath and this stipulation—to reckon him who taught me this art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art if they shall wish to learn it, without fear or stipulation; and that by precept, lecture, and every mode of instruction, I will impart a knowledge of the art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others.

"I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from what is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel and in like manner, I will not give to any woman a pessary to produce abortion. With purity and with holiness I will pass my life and practise my art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and further, from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this oath unviolated, may it be granted to me to enjoy life and the practice of the art, respected by all men in all times! But should I trespass and violate this oath, may the reverse be my lot.[1]

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[1] From the Genuine Works of Hippocrates, translated by Francis Adams, LL.D., Vol. II., p. 779.

ÆSCULAPIUS.

"Æsculapius (Russell, "Hist. and Heroes of Med.," pp. 6,7,8,9,) is probably as much of a fiction of the Greek imagination as Jupiter, Neptune, or Hercules. But we have no doubt but that the Spartan belief that they were the lineal descendants of Hercules exerted a powerful influence upon the events of Greece and the history of the world; so too the legendary direct descent of Hippocrates from Æsculapius, and through him medicine from this demigod had not only a vast influence upon the estimation in which the art of medicine and its practitioners were held among the Greeks, but the influence is more or less felt by the profession of the world to this day."

Pindar (third Pythian Ode) tells us Æsculapius was the son of the nymph Coronis and Apollo; how both mother and child had very nearly been sacrificed to the vengeance of the gods, and how Apollo snatched the infant from the funeral pile and carried it off to a remote and secure cave, the retreat of Chiron, the justest of all the centaurs, that he might learn to cure the manifold diseases that afflict mortals.

"So he rescued those who sought his abode, some from sores of spontaneous origin, some from wounds inflicted by the gleaming brass, or the far-hurled stone, some whose frames were wasted by the summer's fire or the winter's cold.

The gentle charm gave relief to some; to others he administered the soothing potion, or round their limbs he bound the plaster made from herbs; while others again he restored to health by cutting off the limb."

But he carried his skill too far and had the imprudence to restore a dead man to life, for which he was slain by one of the gods.

He was the patron god of the Æsclepiadæ, or priest-physicians, to which order Hippocrates belonged.

Æsculapius was worshiped with great solemnity in various parts not only of Greece but the European world; even in England, where, during the occupation of the Romans, altars were erected to him, one of which at least is now in existence, found in the Roman camp at the Lawe, South Shields.

Even our Valentine Mott (Mott's "Travels in Europe and the East," pp. 284–288) made the renowned Valley of Æsculapius of Epidaurus the Mecca of his pilgrimage in Greece, and in that great amphitheatre which he estimated would once accommodate 30,000 people, he again held an anatomical and surgical clinique, after a lapse of more than 3,000 years, by sacrificing one of the tutelary emblems of Æsculapius in the shape of a chanticleer of glossy black plumage.

His method of making the sacrifice was characteristic of the man, and you will possibly pardon this digression while I tell you that after a suitable exordium setting forth the solemnity and sacredness of the place, tied the common carotid of one side of the fowl's neck, and finding that the subject still survived, he tied the opposite carotid, and as the victim still failed to expire *sec. art.*, he divided the spinal marrow. He concluded his remarks to the pupils present at this Græco-chirurgical clinique by saying that this was the twentieth time he had tied the common carotid—nineteen times on the living human subject in his own country.