

BLACK (J. J.)

Delaware State Medical Society.

With the Compliments
* J. J. Black, M.D.

Session at Dover, Delaware, June, 1877,

Box 57

ADDRESS OF THE PRESIDENT,

JOHN J. BLACK, M. D.,

OF NEW CASTLE, DELAWARE.

WILMINGTON, DEL.:
James & Webb, Printers.
1877.

Delaware State Medical Society.

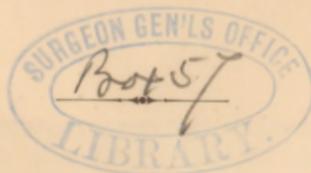
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*Presented
by the Author*

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JOHN J. BLACK, M. D.,

New Castle, Delaware,

Oct 11 - 1877

Eugen J. S. Steeings Esq.,

Dear Sir,

In accordance with request
of Circular of Natl. Medical
Library I have this day
transmitted to your
address. Copy of
President's address - before
Del. State Med. Soc. at
Dover - June 1877 - I
need thank you to acknowledge
its receipt. very respectfully
Yrs. J. Black

GENTLEMEN OF THE DELAWARE STATE MEDICAL SOCIETY :

Whilst acknowledging the great obligations I am under to the society for the honor conferred upon me of presiding over its deliberations for the present year, I feel under no little embarrassment in preparing an address suitable to such an occasion ; nevertheless I feel that your generosity has made me greatly your debtor, and I should fail in *my* appreciation of it, should I let pass the occasion without an effort, feeble as it may be, to return at least in a small degree some practical acknowledgment of *your* appreciation.

My embarrassment does not end here, for the subject of such an address demands a consideration on my part second only to that of its preparation.

We are eminently practical men in this society, dealing chiefly in those matters which may confront us at any moment in our daily routines of busy lives. Hence our subject should be rather practical than theoretical, concerning rather that which has been tried than that which is still wrestling with the vagaries of unproved theory. Such being the case, with many misgivings and without any claim to presumption, I beg your kind indulgence and generous consideration. Again I say we in this society are by compulsion, if for no other reason, being more or less remote from the medical centres, eminently practical men, and for this reason we deal in eminently practical subjects, and on this account I ask your attention to three subjects of an eminently practical nature—Syphilis, Medical Thermometry, and Hypodermic Medication, partly because I believe they are pre-eminently of importance to us as general practitioners of medicine, partly because I find from my general intercourse with medical men that they

are matters which need to be very strenuously enforced upon the attention of the profession at large.

As to the first.

SYPHILIS.

This, probably the most terrible of the scourges to humanity, coming masked in every form, clothed in every dress, usurping in its sway the rights of the guilty and innocent, the poor and the rich, the elevated and depraved alike ; coming masked as it often does in the pure embrace of consecrated love, or from the unholy pollution of the harlot's kiss, this subject, I say, demands our every thought, our every exertion, and it is from my belief that much more attention should be paid to it than is common among physicians, that I make bold to call it to the attention of this society. Not in its positive or physical form is it only to concern us, but we are to watch it in every turn, I may add in every case almost that is in any way obscure, must we examine for its tracings. I undertake here to say that to those professional men who at all times and under all circumstances, keep fully in view in their diagnosis of obscure cases the possibilities of the existence of latent Syphilis and latent Malaria, to them will be most frequently given the consciousness of work well done, of merit fully and deservedly rewarded. As to the origin of Syphilis all we know is that it is obscure and uncertain. It is for us only to take cognizance of its existence. As to the discussion going on among Syphilographers in regard to the unity or duality of the Syphilitic virus, this does not so greatly concern us as practical men. Whilst inclined myself to be a dualist, not a unitist, I always in practice give my patient the benefit of any doubt. Whilst Ricord may be able to make the diagnosis at sight, others of us may only see the light after darkness has, in a measure cast its shadow on our patient. That the Chancroid is *auto*-inoculable on the person bearing it, and the chancre is not, or that the Chancroid is the result of transmission of the syphilitic virus through a system already infected, these matters have no practical bearing on the purposes of this address ; nor can we confirm our diagnosis

as to the true or false nature of our cases by such experiments in general practice. It is of importance for us to know that the secondary lesions of Syphilis are contagious as well as the primary, and that a sore contracted from them is a true chancre, and of course infectious; that the blood of a syphilitic person will infect a non-infected person if placed upon an abraded surface, and this is important in its relation to vaccination, for although there may be doubt of the vaccine virus from a syphilitic person, (which of course none would knowingly use,) infecting with syphilis a healthy person, it is well known the blood will do so, as has been done by vaccinating immediately from the lymph of an infected person. It is also of importance for us to know that the semen of an infected man will infect the ovum, and through it the mother, but that the semen itself can infect the mother by mere contact is at least decidedly doubtful. At the risk of going beyond my province in assuming to instruct in primary matters in an address of this kind, still the very great importance of this subject impels me to take at the risk of some presumption at least a cursory review of the diagnosis and treatment appropriate to the chancre and chancroid and their attendants. Fortunately the treatment of the chancre and chancroid being or should be, so nearly alike, it is not important to go into any detailed differentiation as to the diagnosis. This we do know, that locally the chancroid is generally to the uninitiated much the most serious trouble of the two, and how often alas does the direful poison in the apparently harmless pimple of the true chancre lull to sleep with the siren's song, the hapless victim of its coming rage. Chancroids are generally multiple, chancres rarely so. Chancroids, as a rule, heal more slowly than chancres, and are much more apt to become phagedenic. If the glands enlarge after chancroids, they generally, if not checked, suppurate and the pus is often inoculable, and the enlargement generally takes place in one of the groins forming the bubo. After a chancre the enlargement is more general, they do not suppurate as a rule, and if suppuration does occur the pus is not inoculable.

The chancroid has no regular period of incubation—the

chancre always has, and is from two to three weeks. The chancroid generally commences as an open sore or pustule, the chancre as a papule, which does not, in every case, ulcerate. The chancroid has, as a rule, no indurated base—the chancre has such induration generally. The chancroid is generally painful; the chancre not painful, and hence so insidious its consequences. Chancroids may affect the same person an indefinite number of times. Chancres generally afford protection against another. Mercury is supposed to act as a therapeutic test, improving the chancre, not improving the chancroid. The chancroid will inoculate the lower animals; the chancre will not. Chancroids don't affect the system; chancre always does within three months. Notwithstanding all this differentiation, the only safe plan I believe is to treat every sore locally as though it was a chancre, and if there is any doubt at all, then constitutionally too. The error of omission will be greater than the error of commission, and if a bubo threaten with the chancroid we will thus surely get rid of a foul accompaniment, bringing exposure and pain upon our patient. I am speaking now for ourselves as general practitioners, not as specialists, and experts in diagnosis. Whenever a suspicious sore presents itself, cauterize it, using nitric acid or the acid nitrate of mercury. Almost immediately neutralizing it with an alkali. Then dress it with the well-known black wash of the Pharmacopœia or some more astringent dressing.

Why do we cauterize the sore? Because if a chancroid we probably make it heal faster, especially if in the sloughing stage, and render the chances of bubo less. If a chancre, and a recent one, we give it the chance of the abortive treatment, and hence prevent infection of the system. Or if we are of those who don't believe in the abortive treatment, but believe our patient infected from the first, then we probably do nothing worse than help the sore to heal. Put your patient at once on iodide of potassium, and if he has a chancroid you prevent bubo. You had better add very minute doses of corrosive-chloride mercury. It all acts as a strong tonic, as well as alterative, and if your patient has a chancre it may save him

untold misery; although some high in authority object to any mercurial, until secondary symptoms appear. These rules are not for them, they are for the busy general practitioner, and in whose hands the fate of thousands of unfortunates hangs. As to the induration of the ganglia and lymphatics attendant upon the true chancre, this treatment will modify it to a great extent. And as in the case of the threatened suppurating bubo after the chancroid, we at least give the patient great mental comfort. At this point we take leave of the chancroid and chancre, and induration of the ganglia and lymphatics, the manifestations of the primary stage of syphilis, true or false, and are brought face to face with the terrible array of the consequences of the syphilitic chancre. General syphilis, I believe, always follows from a chancre as the initial lesion, (excluding, of course, those cases of hereditary origin,) and this has its period of incubation, after which we come to the stage of

SECONDARY SYPHILIS

* which comes within six months of the initial sore—or not at all. And thus we can say definitely to our anxious patient, if you escape secondary symptoms for six months you are safe, but these secondary symptoms are to be subject to the severest scrutiny of an intelligent medical attendant. Here it may be well to speak in regard to the prognosis of syphilis; and, I refer here to any stage after the primary stage. It cannot be doubted that many cases tend to cure, even without very active specific treatment, others require to be aided vigorously by specific treatment, and in other cases, I have seen remedies appear only to palliate the disease, and the wretched victims pass a life-time suffering from the manifold tortures of the disease in all its forms. Happily for humanity, these cases are comparatively rare, but there can be no question that they do exist. As it runs in some families to invariably die with small pox, if attacked, so, I believe, in syphilis, there are now and then cases, and I have met with them myself, which, in spite of every light of modern investigation, end their miserable existence, unaided, or certainly unrelieved by remedies. There

* Unless influenced by the retarding effects of treatment.

This prescription generally acts as a tonic, patients rapidly increase in flesh, and the red corpuscles of the blood are multiplied. In the tertiary stages, as a rule probably, the Iodide of Potassium answers better alone, and should often be given in very large doses, as much as one hundred grains or more in 24 hours. If the Iodide of Potassium should disagree in any way, the Iodide of Sodium may be substituted for it with the best results, as noted by me in an article in the *American Journal of the Medical Sciences*, for July, 1865. Mercurial fumigation and mercurial inunction and possibly mercurial subcutaneous injections may, at times, be used with great advantage. As to the treatment by inoculation or syphilization as advocated and practiced by Prof. Boeck, of Christiania, very little is necessary to be said of it here. It is as yet on trial, with no great tendency to gain converts. We certainly would have difficulty in persuading any of our patients to submit to it, yet, possibly, as in vaccination, its good results to come may establish it upon a firm foundation.

As to the duration of the treatment of syphilis, it certainly with rare if any exceptions should be continued as long as syphilitic symptoms continue. Some would stop when these disappear, watching always for their re-appearance; others again insist on a very long period of treatment. Dr. E. L. Keys in his "Tonic Treatment of Syphilis," says, he is in the habit of keeping patients two and a half and three years or more under treatment continuously, and then he sees them marry and produce healthy children. Bad cases he says, generally have been over-treated or under-treated early in the disease, and have not pursued a regular and systematic course. As an example, he gives one-sixth of a grain of the protoiodide of mercury or $\frac{1}{2}$ grain blue mass, and if anæmic combines with iron and extract gentian. This is a minimum dose. He increases this until intestinal disturbance appears or the gums may be slightly touched. "Beyond this, he cannot go without aid from opiates, or damage to health. This is his full dose. Now the active symptoms subsiding, he reduces the dose one-half; this is his tonic dose. If symptoms re-appear he adds the half dose dropped to the tonic dose again, and

continues the full dose until the symptoms again subside and the tonic dose is resumed. He here may use, in addition to the tonic dose, mercurial fumigation or mercurial in^{unction}unction. He strongly deprecates positive salivation. The patient is not safe until two years of treatment have passed, and he has been free from all symptoms for at least six months. In late secondaries and tertiaries he combines the Iodides with mercury. He says, in reference to the Iodide of Potassium: "No means in the physicians hands place him so near the Deity as the Iodide of Potassium. With it in well selected syphilitic cases, he can sometimes almost effect a resurrection. Wasted and lost functions are restored, the mind, the memory, the speech, the hearing, the sight, the taste, the touch, all may be recovered by its aid. To effect such restoration, however, the drug must be boldly pushed. See review in *Hays' Journal*, April, 1877. All of this appears to me to be sound doctrine, and worthy of trial, at least in many cases. Surely we cannot watch these cases too long or too closely. It has always been my rule to keep my patients under surveillance and treatment, at least six months, and tell them what they may possibly expect, so long as they may live, and to seek proper medical advice on the appearance of the least symptom. I caution them if they ever have any ailment whatever during their lives, to unfold their syphilitic history to any physician whose aid they may summon. I believe, by such a course, many persons would be saved untold misery. Without spending much time it may be well here merely to enumerate by name some of the more prominent syphilitic troubles: Skin affections; Erythema; Lichen, Pityriasis, Psoriasis, Lepra, Vesicular Eruptions (rare), Pemphigus, Rupia, Impetigo; Ecthyma; Tubercles, Ulcers, (Bumstead's Classification). They are copperish in color generally. There is usually no itching, have often peculiar situations, &c. As to any special treatment nothing is necessary to be said in this address. Then we have Syphilitic Alopecia; Syphilitic teeth; Onychia; Mucous Patches; Gummy Tumors. Here is an interesting group. As an illustration, I will give the case of a gentleman which came under my own notice. A gummy tumor rapidly developed on

the under part of the left thigh to the size of a child's head. He was sent home to die, by intelligent physicians, of an encephaloid-cancer. It entirely disappeared in six weeks under large doses of the Iodides of Potassium and Sodium. I may add, there was ulceration with irregular undermined borders, which, in my mind, was almost if not entirely diagnostic. Then we have affections of the Mammary Gland; Syphilitic affections of the Digestive Organs; Mucous Patches and Tubercles of the tongue; Gummy Tumors of Soft Palate; Rashes and Patches in Pharynx; Stricture of Œsophagus; Syphilitic Dyspepsia; Affections of Liver and Pancreas; Fatty and Amyloid Degeneration; Ascites; Affections of the Spleen and Thyroid gland; Deep Lymphatic Glands; Kidneys, &c. Then the Nose, Larynx, Trachea, Bronchia and Lungs. Syphilis of the lungs is always to be watched for; in old cases I have seen it simulate consumption in every symptom. It is a consumption as much as tubercle or cheesy degeneration. It affects the Heart and Blood Vessels, the Genito Urinary Organs, Ovaries, Fallopian Tubes, Uterus and Vagina. What an array! In fact syphilis is everything, or rather almost any chronic trouble may be syphilitic. (The above classification follows Bumstead.)

Now we come to that class of syphilitic diseases, which has been so much elaborated of late, and to the physician are of surpassing interest. I refer to

SYPHILITIC NERVOUS AFFECTIONS.

Every person who has had syphilis, may some time or another, have it attack some part of his nervous system. It is generally supposed to come on not before two years—or even after thirty years—yet I have met with a case of syphilitic paralysis of the portio-dura of the seventh pair coming on with the erythematous rash three months after the initial lesion. Up to this time the case had not had proper treatment, but soon yielded to Iodide of Sodium and Bi-chloride of mercury. We have no given signs of these troubles, viz:—"that a nervous disease is syphilitic." We must get the history of the case, and if we have reason to suspect syphilis from the age or other circumstances, give the Iodides as a therapeutic test. Dr. Thomas Buzzard

says, "putting aside cases of injury, hemiplegia or paraplegia occurring in a person between 20 and 45 years of age—not associated with Bright's disease—nor to embolism from valvular disease of the heart, is in at least 19 cases out of 20 the result of syphilis. Syphilitic epilepsy is a trouble that sometimes occurs. For the differential diagnosis between it and ordinary epilepsy I refer you to works on this subject. The therapeutic test of the Iodides is of great use here. Sometimes these cases are embarrassing, and sometimes we might hope them to be syphilitic as we could almost certainly benefit them. Here is a case from my note book:—A young man married, remarkably able physically, had always enjoyed robust health, except had had ague frequently during the last few years—age 25 years. One day he suddenly fell in a convulsion; had another the next day. I put him on large doses of quinine and Bromide Potassium; could find no trace of and could get from him no syphilitic history. In a few months, keeping up the Bromide and also Iodide Potassium, he was attacked again, and had six or eight convulsions at short intervals. Attacks were preceded by pain in the head. Here were a series of convulsions following each other. They commenced after 20 years of age from no apparent cause, except malarial. He told me he often had little attacks but knew what was going on all the time. Now, certainly all these phenomena pointed to syphilitic epilepsy. This case was treated with that view with all the light that modern research could throw on it, yet it went on from bad to worse progressively. For nearly a year before he died there were no more convulsive attacks apparent, yet he became nearly imbecile, pain in the head at times was intense; paralysis of right side came on gradually until it was entire, and he was insensible several days before death. The therapeutic test has almost if not thoroughly convinced me here that the trouble was not syphilitic, but a non-specific tumor in the brain substance, probably the left hemisphere anteriorly. If this case had had a specific cause I believe the treatment would have saved him. The ophthalmoscope furnishes a valuable guide in diagnosis of these cases and every physician should become acquainted with the ma-

nipulation and use of this instrument. I now even look upon its use as almost a necessity in general diagnosis. So electricity may be a useful guide. We are not here so much interested in the pathology and morbid anatomy of these cases, for these subjects we refer to works devoted to them. The clinical aspect is what concerns us. The temperature in syphilis depends much on the presence of inflammatory tendency or not, yet I believe my experience teaches me that in all cases of constitutional syphilis, the temperature is almost always a little above normal ; not going above 100° , except for cause. Insomnia is often an effect of syphilis Dr. Buzzard says, and recommends the therapeutic test of the Iodides even in children. He also recommends always to test urine for albumen, and examine heart and blood vessels so as to exclude these as a cause of the nervous trouble. If a woman miscarries frequently, syphilis may be at the bottom of it in some way. So it may be in children who have unreasonable crying spells. Here in these and many other cases you can quietly use the therapeutic test, and thus gain much credit for yourself. You will practice intelligent, not routine medicine. Relapses are prone to occur in syphilitic nervous diseases. Less so in those from secondary lesions than in those from tertiary lesions, and in tertiary troubles the treatment as a rule must be long continued. The treatment in syphilitic nervous affections does not essentially differ from that in general syphilis. Many of these cases require not only the Iodides pushed to the extremest lengths but mercury combined with them, also good strong diet ; often arsenic, iron, and Cod Liver Oil, as tonics. In the treatment of all syphilitic cases of course the moral treatment must prevail. Every dissipation of whatever kind must be abstained from, and many require the total stoppage of tobacco in every form. This subject of syphilitic nervous diseases, is to me one of the most interesting and one of the most satisfactory in its clinical results of all diseases in the whole domain of medicine. There is no limit to research here, and the whole matter is yet in its infancy. As an example of what can be accomplished by remedies when guided by an experienced and accomplished hand, I will close these

remarks on syphilitic nervous diseases by quoting a case of Dr. Thomas Buzzard, reported in his admirable work on this subject. I give it without note or comment. Any of us may meet with and gain credit from such a case.

CASE I.

A man aged thirty-nine was wheeled into the consulting room on a chair, being unable, except in the slightest possible degree, to move either leg. Neither could he lift his right arm, and his face was also partially paralyzed on the right side. He had great trouble, besides, in expressing himself, being constantly at loss for the right word. A touch was felt very imperfectly on the right side of the face and arm, and on both legs. There was incontinence of urine, of faeces, as well as absolute impotency. He was very cachectic in appearance. There was no evidence of disease of the heart, kidneys or blood vessels, and there was no history of an injury. During a voyage to England, five months previously, he had complained of extreme weakness, which gradually merged into a definite loss of power in the right leg, and was accompanied by incontinence of urine. Two months after his arrival in this state, he suddenly became paralyzed in the right arm and face, without any attack of loss of consciousness, and a week after this his left leg began to lose power, until it became as much paralyzed as the right. The left arm was the only limb unaffected. He had been under constant medical treatment, which included, as I ascertained, strychnine, iron and quinine, but had uninterruptedly grown worse. I found, on inquiry, that seven years previously he had suffered from a chancre, for which he took mercury till his teeth were loose, and which was followed by sore throat, but no skin eruption. I at once gave him Iodide of Potassium. In a month he could walk a mile with the help of two sticks, and could hold his urine for a short time. In another fortnight he could walk a little way without sticks, and a month after this, he could manage four miles by the help of a stick. His reproductive powers had returned, and he had much more command over his bladder and sphincter ani. Six months after his first visit to the hospital, he had almost en-

tirely recovered his usual health, could walk six miles, "at a spell," and more than that in a day. His grasp was equal and perfect with either hand. There was still a little hesitation in speech, but he had ceased to employ the wrong word. There was also some slight remaining weakness of the sphincter ani. He told me he could feel nothing the matter with him, and was about to start for one of the colonies. I advised him to resort to the iodide (of which he had taken thirty grains daily for six months) in case he felt any tendency to a return of his ailment.

CONGENITAL SYPHILIS.

With a mere mention of another very interesting phase of this protean disease, "Congenital Syphilis," which is acquired from father or mother, or both, during the uterine life of the child. The disease may not be apparent in either parent but latent entirely, yet the poor little victim may present a sad spectacle. Again, the mother may contract syphilis after conception, in a healthy state, and yet the offspring may be syphilitic. Of course, syphilis in an infant, is not always congenital, for it may acquire a chancre from the nipple of the mother or nurse; and thus, I have seen a child and its mother and father, infected from an infected woman, who now and then was allowed to nurse it. Some deny that a father can infect his child, if the mother is free from infection; others think he can.* I decidedly think the father is often alone at fault, and have known cases confirmatory of this view. If a man has been infected with syphilis, and has had no symptoms for a year, Bumstead thinks he may marry. It would be better for posterity if he never had offspring. As a rule, this form of syphilis rarely appears before the completion of the first month of life, and, not often after three months have been safely passed. Of course, if once developed, its re-appearance is liable, as long as the sufferer may live. The general aspect of syphilitic infants is that of old age or monkeyish. They are badly developed, weak and debilitated, and, of course, cross and difficult to nurse, if any vigor remains in them. Pain may cause all this—for the disease may affect any part—any chronic trou-

* In this case the mother may become infected through the infected ovum.

ble the child may have, is probably syphilitic, and almost any chronic trouble may be present, whether of the nose or eyes or head, or stomach and bowels, or liver, or bones, or what not. As to treatment, if the mother is known to be infected whilst carrying the child, treat her specifically. She will not be half so liable to lose it, as if let alone. As to the infant, treat it by the stomach, if it will bear it, and also by inunction. If the stomach is irritable under treatment, use inunction alone. You may give the iodides through the child's nurse, as an adjuvant. With this synopsis, I bring these remarks upon this subject to a close. If any of you gentlemen object, that I have confined myself too much to detail, and have gone, for this occasion, too minutely into the purely didactic relations of this theme, my apology is, that none of us can be too familiar with it. Indeed, I think it would be far better if there were more familiarity among the people in general, with these matters, which pertain so much to their happiness or misery. It is commonly spoken of only in whispers, and its mere mention surrounded with every bound of secrecy. I believe the masses generally, who look to us as guides in their hygienic relations should be placed on their guard, and be rendered more intelligent in these grave matters. The ignorance of the world in regard to the terrible results of the syphilitic poison is indeed appalling. From this, I believe, results much of the cruel suffering that follows it. If we can prevent this in any measure great or small, should we not make the warning so clear, that "he who runs may read?"

THE USE OF THE THERMOMETER IN CLINICAL MEDICINE.

Of the many important accessions to the armamentarium of the physician in recent years, I look upon the clinical thermometer as one of the most important, if not *the* most important of all. Indeed, after one has accustomed himself to its use in general practice, the aid he receives from it in diagnosis, prognosis and treatment, is so immeasurably great, as to cause him to wonder that it were possible that such a help had been so long neglected by medical men. I know many physicians belonging to this society avail themselves of its use, yet in a

consultation practice, somewhat extended, I now and then find gentlemen still reluctant to make those changes in their method, by which they may attain to advantages so unspeakable to themselves and to their patients. For this reason, among others, I deem it of importance to introduce it to this meeting. The general application of the thermometer in clinical medicine, is of comparatively recent date, and has been particularly elaborated by the laborious work and researches of Wunderlich and Ringer in Europe, and Seguin in this country. I remember well, seventeen years ago, when that rare old medical philosopher, Samuel Jackson, of Philadelphia, used to impress upon us in his lectures the importance of taking into consideration the temperature of the body in health and disease, and often in giving his clinical history of illustrative cases did he impress upon us the importance of the temperature under the tongue, as affecting the case either in diagnosis, prognosis, or treatment. As to the form and style of instrument some remarks may be of use. There are many forms and sizes, but one that you can conveniently carry in the vest pocket is the handiest and least liable to be broken. I say this from experience, for before I used this form, I have broken sixteen dollars worth in one month; now, with the thermometer four inches long, I rarely ever find one broken in its case. Therefore, I advise you to reject those over four inches in length, or four and a half inches at most. They should of course be compared and accurate, and those sold by J. H. Gernrig, of Philadelphia, with the Kew certificate, leave nothing to be desired in this respect. They come self-registering and otherwise—of course, the former are in all respects preferable—and, if the break in the column should unite, it can be readily re-arranged. The scale may extend from 90° to 110° , or the range may be greater, and the degrees should be subdivided into one-fourth or one-fifth degrees. There are also thermometers prepared for surface temperatures, and whilst they are in many cases of great use, yet from their frail construction are very expensive for general practice out of hospitals. Dr. Segnin also uses what he calls the Thermo-scope to mark the activity of the heat-making function.

There are also very delicate arrangements on the Thermo-electric order, for noting differences of temperature. See Da Costa's Medical Diagnosis. As to the method of applying the common clinical thermometer, the axilla is the preferable place, although the rectum or under the tongue may be chosen, bearing in mind the rectum is naturally a little higher in temperature and under the tongue a little lower than in the axilla. Wipe off all perspiration ; this is very important, and having run down the column, if above normal in the self-registering instrument, apply the bulb deep into the axilla, carry the arm across the chest, and allow the instrument to remain for from five to ten minutes. The range either above or below 98.5° , ninety-eight and one-half degrees, will give you the temperature of the body you are seeking it in. In using the thermometer, I, generally, in a given case, keep a record in the room, in which, twice in twenty-four hours, and as near the same hour as possible, I note the temperature as expressed in the axilla, and also at the same time the condition of the pulse, its number of beats, &c. ; and also the number of respirations. Take this record after the case is over to one accustomed to this mode of clinical investigation and registration and he will read you its clinical history. Take for example a case of typhoid fever. What satisfaction this method gives those who use it ! and I say here, by this method cases are more intelligently, and, I believe, more successfully, treated. By it we can see into the future, and ward off in a great measure occurrences which without these guides to warn us, might suddenly fall upon and overwhelm our hapless patient. As physicians, charged with the lives and destinies of communities, we have no right to neglect these lights that modern research furnishes to us. As to the normal temperature, it may be slightly altered by circumstances, as the time of day or night, exercise or rest, food, &c. As alcohol diminishes the temperature, so a cup of hot tea increases it. The body may seem of a natural temperature to the touch, yet the thermometer will tell you it is much above the normal standard. Our senses easily deceive us here, as in other places. The patient may say he feels cold, and yet the thermometer may indicate increase of

heat. So he may feel not, and yet sometimes the thermometer indicates a grave fall. If the temperature goes to 106° , the patient is, (except, probably, in malarious disease, and this is very important to know,) in great danger, if it goes to 108° , he will scarcely get well, yet cases have been reported where the temperature went far above this and the patient recovered. Scarlet fever and tetanus may now and then do so, but the situation must excite the greatest apprehension. Sometimes I notice in our typho malarial fever, common in Delaware, particularly in the fall of the year, that the thermometer will run up to 106° to 107° , but large doses of quinine as also of salicin or salicylic acid will as quickly drive it down. I have often been seriously alarmed by such cases, but now I don't often allow it to happen, for by watching the thermometer I prevent the creep and fever. This one use of the instrument in this one disease renders it invaluable in my eyes. No sick man, as a rule, is well or is getting well whilst the thermometer keeps up. Take a case of the above fever. If, when the time comes for convalescence, and yet the thermometer don't come down, there is some complication. I have in my note book some interesting cases here, and some very interesting thermometrical histories, which I hope at some time to lay before the profession in another form. If the thermometer fall from night to morning, it is favorable; if the reverse is the case, it is unfavorable. If during the course of a disease there is a sudden and marked rise of temperature, there is either a malarial complication or one more grave, portending even unto death, and sometimes at once, we cant always tell whether it is one or the other. I have seen mistakes in prognosis here. It is rare for the thermometer to fall suddenly below the natural standard; sometimes it does so in concealed hemorrhages, &c.; also in the collapsed stages of disease. The thermometer is also of great service in diagnosing between acute and chronic diseases. It has also been asserted that when tubercle is forming in any part of the body the temperature is above normal, but if it be cancer that is forming it is normal or below the average. Further observation on these points is needed. The former

proposition is undoubtedly true. I have great faith indeed in the clinical use of the thermometer, and I think we should not only urge its use among physicians, but I think all persons should rely upon it more than is usual. Colorification is indeed an important matter in every relation of life. We should urge the use of the thermometer upon mothers and nurses. By its judicious use they may save themselves many a pang, and save us, as physicians, many a sigh for the fruitlessness of our labor. Train the mother to watch the temperature of her children, and by it she may, at the very earliest minute, be made aware of the insidious approach of such a terrible scourge as diphtheria or scarlet fever, and thus give the physician precious moments for the exercise of his treatment, which otherwise would have been frittered away as mere imaginings of baby's frettings.

Gentlemen, I do not intend to say more upon this subject, but I hope I have fulfilled my intention, and that was to so open up this question, that it should receive, at your hands, that absorbing attention which its great and increasing importance deserves and demands.

HYPODERMIC MEDICATION.

Another addition to the Armamenta of the physician of very great usefulness and importance is the hypodermic syringe, introduced within the recollection of all of us, and I believe it to be of American origin, however little this may concern us in our present inquiry. I believe some physicians yet practice medicine without resort to its use, but how they can do so, either in justice to themselves or to their patients, is a mystery, I fancy to us who *do* use it, unfathomable. I do not believe they appreciate its advantages, and I hope here to remove any prejudice existing in the mind of any one against its use. Once tried, I am satisfied the most skeptical will be the most enthusiastic in its praises. As to the kind of syringe for general use, there are many; some composed of glass, some of metal, and some of rubber, and some of a combination of materials. Dr. Barthotow, our highest American authority in these matters, recommends a metallic instrument

made of silver. This is in all respects very satisfactory. Those of hard rubber are generally cheaper and less reliable. I cannot recommend them. If of a reliable make, I prefer and recommend the glass syringe; with metallic ends and piston, the latter graduated to minims with a screw top; thus giving the greater exactness in the dose. I bought one of this description from Luer whilst in Paris in 1866, and it alone has served me faithfully ever since, and with its case to-day is as perfect as ever. I have used everything in it, even iodine and liquid subsulphate of iron, and for all purposes, as aspirator, or syringe, and it has never failed me. It has fallen on the floor repeatedly and never been broken. It has three different needles, and rimmers in abundance for cleaning them. From my experience with this one, I recommend it above all others. It cost me twenty francs in gold. As to its uses, if we meet with a case where pain is intense, as one of the various forms of colic, in ten minutes we most probably have our patient entirely comfortable. Indeed almost as though by magic, he passes from a state of absolute torture to one of absolute rest. Such comfort could not be brought about by the mouth or rectum in hours of anxious care on the part of both the patient and physician. In mania we can use it with impunity, the patient *volens aut nolens*. If the stomach is irritable and unable to retain remedies, we here have recourse to the subcutaneous syringe. In collapse absorption in the alimentary canal having almost ceased, we have much better results in using stimuli hypodermically. Now we come to steps in advance in medicine, "only made possible by the hypodermic syringe. The injection of ergotin for the eradication of uterine fibroids, the injection of ergotin in the subcutaneous cellular tissue over the seat of aneurisms. Even aneurisms of the arch of the aorta have been seen by careful and reliable observers to have been much benefited by this plan. Langenbek, I believe, was the originator of this treatment. It should be accompanied by large doses of iodide of potassium. Prof. Wm. Pepper speaks of using it in splenic enlargements. In haemoptysis, I believe the best and most reliable treatment is the hypodermic injection of ergotin;

also in *Purpura Hæmorrhagica* ; also in certain forms of congestive neuralgia, Dr. Pepper has found it of great service introduced over the course of the affected nerve, or near its point of emergence. The injections of ergotin at first are painful, but as now prepared rarely cause abscess. If you use ergotin, use it in strength of about ninety-six grains to fluid ounce of distilled water, and of it ten minims represents gr. ii ergotin. As much as eight grains ergotin may thus be given. I have before me a specimen of extract of ergot made by Hance, Bros. & White, of Philadelphia. Fifteen grains dissolved in ʒi distilled water, will produce a solution representing one grain ext. ergot to each five minims, equal to eight grains powdered ergot. This preparation is highly recommended. Thus we can bring the whole system under the influence of the vasa motor system. And this remedy should not be overlooked in treating obstinate cases of uterine hemorrhage of whatever kind. The remedy most used and most useful by this method is undoubtedly morphia, and the most available salt is the sulphate, because it is the most soluble. Never use this in solution prepared with an acid. It is often irritating and causes abscess in the cellular tissue. Never use a solution of any of the salts of morphia if it has to be kept any time, or you will constantly be annoyed with irritations and abscesses in your patients. I scarcely ever meet with even an irritation which causes the patient to remark it, and I believe it is because I always dissolve the powder fresh when about to use it. I carry with me powders of the sulphate of morphia of one quarter of a grain each. If I want the average dose, one quarter of a grain, I call for a teaspoon and a little rain water if I can get it. I empty a powder into the spoon, then draw the syringe full of water and throw it on the powder ; then dissolve it, redraw it into the syringe, and I have it ready for use. With the powders of one-quarter grain each, I can decrease or increase the dose at will. As to the point to apply the injection, I prefer under the skin of the back of the fore arm, and as a rule with morphia, I don't think it necessary to apply the remedy at the seat of pain. You can relieve a colic as soon by ap-

plying it to the arm as to back or abdomen. The sulphate of morphia don't cause abscess even if not thoroughly dissolved in the water before using, provided no acid is added. In commencing to use morphia, hypodermically or indeed, most any remedy, it is safe to use about one-third the dose usually given by the mouth. Commencing thus, it may be increased almost indefinitely. I had one patient with cancer, in whom I used the almost incredible amount of twenty-one grains sulphate morphia under the skin in sixteen hours. In this case I commenced with one-quarter of a grain, and in six months, using more or less daily, arrived at this amount. It really appeared to have lost its effect on the system, and for the remaining week of the life of the patient I resorted to chloroform internally or by inhalation. The agony suffered in this case was beyond anything I ever conceived of. Some physicians report that it is not necessary to increase the dose so rapidly by the hypodermic method as by the mouth and other ways. In my own experience, there is no very great difference in this respect. The constitutional effects of the dose are more rapid and satisfactory, but in the end about the same as in those cases where administered by mouth or rectum. As to the sequela, they are also about the same, and I believe the nausea and other symptoms experienced, is as great if not greater than that following other modes of administration. Two ordinary doses in 24 hours will keep a patient under its influence. A man may as readily become an opium eater by the use of the hypodermic syringe, as in any other way. Another important remedy hypodermically, is atropia, but, gentlemen, atropia is an edged tool, and too great caution cannot be exercised in its use, like morphia the effects are the same used hypodermically as any other way, only more intensified and more rapid. It may be used in asthma, forms of neuralgia, and muscular rheumatism, to dilate the pupil of the eye, bladder troubles, vomiting, &c., but even in almost all these cases should be combined with morphia. The hypodermic dose should be small; certainly not over one-sixtieth of a grain to commence with, and except in excep-

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tional cases, not going beyond one-twentieth of a grain. The doses of one-twelfth or even one-sixth of a grain, as recommended sometimes by Trousseau, in his writings, appear to me to be almost criminally large. In giving it, use the fresh solution. My syringe holds one-third of a fluid drachm, and from this I make my calculation. A most useful combination is morphia and atropia. Here you can carry the powders and dissolve them fresh. Each powder may contain one-quarter of a grain of sulphate of morphia, and one one-hundred and twentieth of a grain of sulphate of atropia. This is a very full dose to commence with. Half of it will be usually sufficient. By using this combination, we relieve pain more promptly and reliably, provided we don't use too much atropia, for, if we do, it may exert its antagonistic powers, which appear to have some foundation, either directly, or, as is more probably the case, by its action in keeping the vital machinery going, whilst the effects of the morphia exhaust themselves harmlessly. The toxic doses of each may be overcome by the other, at least this effect should always be sought for in these unfortunate cases. Atropia stimulates the heart, whilst morphia may depress it. By using morphia and atropia together, we have less sick stomach following, much less constipation of the bowels, and less trouble with the urinary secretion. This combination is therefore preferable to morphia in many cases, without taking these advantages into account. In all neuralgic rheumatism, in some forms of convulsions, angina pectoris and asthma, especially in bladder troubles, where belladonna is so useful. In Bright's Disease of the kidneys, we should be as careful of doses of opium hypodermically, as given in any other way, or even more so. So with the hypodermic syringe; we may use the calabar bean, strychnia, alcohol, quinine, and many remedies useless to enumerate in a paper of this kind. I have used quinine with good effect, and especially would I have recourse to it in a case of convulsions, which I had reason to expect, were of malarial origin, or after a congestive chill, to prevent a return. I believe I have seen one of these cases thus rescued from

death. I mean a case of convulsions in an adult. So in connection with whiskey in great weakness or collapse. The best way to use it is to make a concentrated solution with as little acid as possible; you must use *some*. The great objection to its use hypodermically, is that you almost always have great irritation or abscess following it. The dose is active in about one-sixth of the dose by the mouth. In case of great depression or collapse, or in case of venomous bites, we might inject whiskey and ammonia into the veins, although Halfourd's experiments in the bites of serpents have not been reported favorably upon by the commission sent to investigate the subject in Australia. Thus, gentlemen, we see from this superficial retrospect, the many uses to which this handy little instrument can be applied, and I think I have said enough and shown enough to recommend its adoption to the most skeptical. Although I know, gentlemen, this medley has already grown too long, there are one or two matters I feel that I must refer to as of some practical interest, and in the use of which my experience has been considerable. First, in regard to the use of the Liquid Subsulphate of Iron, (*Liquor Ferri-Subsulphatis, U. S. P.*), in Post Partum Hemorrhage. I will premise by declaring my belief that if we are particular in the various stages of labor in keeping the possibility of this terrible complication in view, and towards the end of the second stage give a dose of ergot, and deliver the placenta by Crede's method, and put the child to the breast as soon as possible, we will have, comparatively few of such cases to deal with. The treatment by astringents is not new, but the use of this particular preparation of iron is of more recent date. It may be and has been objected to as dangerous to the woman, because coagula may be carried to the centre of circulation, but with even its dangers, I believe, that if properly used without forced injection, the rate of mortality from Post Partum hemorrhage would be reduced. In these cases, gentlemen, we must not be timid. As to the method usually employed and recommended by Barnes and others, that of conveying the liquid more or less diluted into

the cavity of the uterus by means of a syringe, this I think should be objected to for several reasons. First, the injection may pass through the fallopian tubes into the peritoneal cavity and cause peritonitis. In the hurry of the occasion, the most careful and self-possessed operator might too forcibly inject the uterine cavity. *And one of the greatest objections*, the annoyance from many reasons of carrying the apparatus about with you in general obstetrical practice. In my general obstetrical practice, I usually carry with me a two-ounce vial of the Liquid Subsulphate of Iron, and two small, fine sponges, the size of a large hen's egg.

If I meet with a case of threatened port partum hemorrhage, and it does not yield to mild remedies at once, or if from the start is one of those of particularly alarming nature, I make a mixture of one part of the iron to five parts water. Soften the sponge first with water, then fill it with this liquid, grease the hand and arm thoroughly, turn out the clots, and carry the sponge boldly up to the fundus of the uterus. From the stimulus the uterus almost immediately closes and expels gradually the hand, and the bleeding gradually ceases. Sometimes there are alternate contractions and relaxations, but the bleeding is very rarely severe after the first. If it continues, withdraw the hand, regrease it, and go through the operation again with a new sponge. In two cases I have met with, such was the desperate character of the bleeding that I used by this method the iron entirely undiluted, and both patients made a most satisfactory recovery. In withdrawing the hand, or rather in allowing it to be expelled, withdraw all the clots possible, and you will leave the uterus and vagina in a tolerably good condition, the grease facilitating their removal. Of all the cases I have known this method to have been pursued in, all have made the rapid and satisfactory recovery that general obstetrical cases usually do. Pursue this method, gentlemen, and in your general obstetrical practice go armed with this little bottle and your small sponges, and I assure you, you will feel abundantly fortified and strengthened.

One other matter and I finish. I refer to a combination of iron and milk, which I shall designate as,

Ferrated Milk.

"I usually prescribe it thus :

"R. Tinct : Ferri Chlor : ℥i.

S. Add 20 drops to one tablespoonful cold water, and add this to from $\frac{1}{2}$ to a whole glass of new milk, and drink it with or after each meal.

By adding the iron to the water there is no co-agulation or disturbance of any kind, the taste is pleasant and agreeable, and we have the iron tonic "*par excellence.*"

In Bright's Disease in its various forms, in the different forms of anæmia, and especially in those cases of malarious origin, in fact wherever we want a combination of iron and food I look upon it as of all remedies"

"Facile Princeps."

Iodide of Potassium dissolved in water and added to milk is probaly the the most advantageous and palatable method of administering that more than valuable remedy. My experience in thus using it has been most satisfactory.

Gentlemen, in closing, again I thank you for the honor you have conferred upon me of presiding over the deliberations of this body. Let each one of us strive to preserve its ancient honor and good intentions, and more, let us all collectively unite in extending its field of labor. Let us make it indeed a society for the propagation of useful knowledge among medical men. Let us make it a working society. I think I already see a disposition for a change to the better. Let us, whilst this feeling is active among us, extend the time of our yearly meetings. Let us extend our committees for research and report. In fact, gentlemen, let each and all of us be up and doing ; let us improve the time and faculties that God has given us for good. Where is there a field greater

than the field of medicine for their employment? Thus doing our part, gentlemen, may we

“ So live that when our summons comes to join
 The innumerable caravan, which moves
 To that mysterious realm, where each shall take
 His chamber in the silent halls of death,
 We go not, like the quarry slave at night
 Scourged to his dungeon, but sustained and soothed
 By an unfaltering trust, approach our graves
 Like one who wraps the drapery of his couch
 About him, and lies down to pleasant dreams.”

