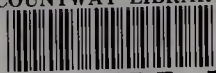


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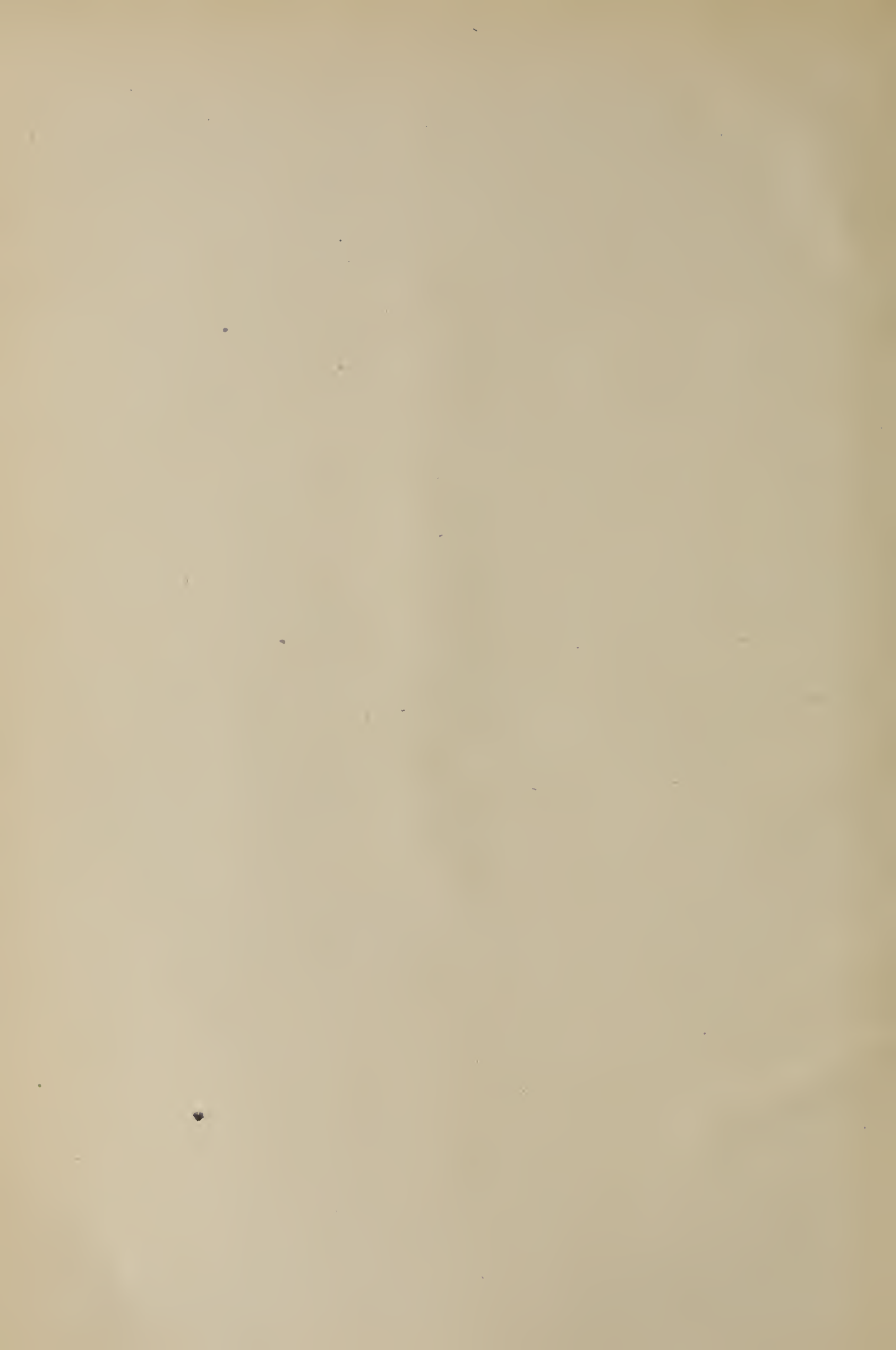


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GAILLARD'S MEDICAL JOURNAL

(FORMERLY THE RICHMOND AND LOUISVILLE MEDICAL JOURNAL)

AND  
THE AMERICAN MEDICAL WEEKLY.

[CONSOLIDATED.]

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VOL. XXXVII. - - - - - NOS. I. TO VI.

NEW YORK.

1884.

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# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

Scientia et Veritas Sine Timore.

VOL. XXXVII.

NEW YORK, JANUARY, 1884.

No. 1.

## ORIGINAL ARTICLES.

ARTICLE I.—SKETCH AND REMINISCENCES OF THE LIFE OF DR. J. MARION SIMS; AS GIVEN AT THE LATE MEMORIAL MEETING OF THE MONTGOMERY COUNTY MEDICAL SOCIETY. By W. O. BALDWIN, M.D., of Montgomery, Alabama.

Dr. W. O. Baldwin said:

MR. PRESIDENT AND GENTLEMEN: In my somewhat lengthened life it has often been my lot to mourn the death of cherished friends and associates, and to feel those bitter heartaches which spring from lost companionship and cherished affections. One by one, I have seen many such whose lives had become a prominent part of my pleasures here pass to the spirit land; but seldom has my heart been so filled with gloom as since the morning when the wires brought us the news of the death of my old and loved friend, Dr. Marion Sims.

I am sorry I am not able to pronounce, as you have requested me to do, a fitting eulogy upon the life and achievements of this great physician and good man. This duty belongs to an abler tongue than mine, and more ample opportunities than I possess. Rest assured, however, that the task will be performed in due time, and that the world which so fully acknowledged the amplitude of his genius and the vastness and grandness of his benefactions to suffering woman whilst living will not fail to accord to him when dead that niche in the temple of fame which he so justly deserves.

I probably know more of Dr. Sims' personal and professional history whilst he lived in Alabama than did any one else, except his brother-in-law, Dr. R. B. Jones, still one of our esteemed members.

So far as I can learn of his history, there was nothing particularly striking in his character up to the time when he settled in this city in the fall of 1840. I learn from persons who knew him almost from his childhood, that when a boy he was not particularly remarkable for traits of character which distinguished him above other boys of his age. In his classes at school he stood fairly well, but was not precocious, and attracted no particular attention beyond his handsomely chiseled face, his delicate physique, and his genial and playful turn of mind.

After graduating at the renowned college of South Carolina, he studied medicine in the office of Dr. B. C. Jones, at Lancaster, a small village in the district in which he was born, and about ten miles from that spot. He afterwards attended lectures at the medical college at Charleston, South Carolina, but received his diploma at the Jefferson Medical College of Philadelphia. After graduating he returned to Lancaster, and for a short time offered his services to

practice medicine in that village. As is often the case with young men attempting to practice in the towns where they had passed their boyhood, he did not meet with great encouragement, and after remaining there but a short time he removed to this State (Alabama), and located in the fall of 1838 at Mount Meigs, a small town about twelve miles from Montgomery. He remained about two years, during which time he returned to Lancaster in 1836, and married Miss Eliza Theresa Jones, who still survives him. After returning to Mount Meigs with his wife, and remaining about a year longer, he removed to Macon County in 1837, and settled in a neighborhood near Cubihatchie Creek, and not far from a little place called Cross Keys. From this place he removed to Montgomery in 1840, bringing with him his little family—consisting of, I think, his wife and two little girl children. It was at this juncture of his life that I first knew Dr. Sims. He was about six years my senior, yet we soon became intimate friends, I suppose partly from the fact that I was nearer his age than any of the other physicians of the place, and the additional fact that neither of us was overwhelmed with business, and had plenty of leisure to cultivate each other's society. I thought he was the most winning and captivating man I had ever met, and I soon learned to love him as I did my own brother, and meeting a reciprocal feeling of attachment on his part, our intercourse soon ripened into confidential relations, which were not disturbed during his residence in this place.

At the time Dr. Sims located in Montgomery, he had scarcely any income except from his profession, and that being quite limited for the first year, he was sorely troubled about meeting his current expenses for a time.

But his was not a nature to be discouraged long. He was all zeal, energy and pluck. Within a few months after he located here, the operations for club-foot and cross-eyes, the latter of which had but recently been devised by Dieffenbach in 1839, and practised successfully by him, was creating quite a sensation in Columbia, South Carolina. Dr. Toland, then of that city, and now of San Francisco, had but recently visited and returned from Paris, and was making quite a reputation as a surgeon by performing these operations in Columbia. I heard Dr. Sims read from a newspaper published in that city the first accounts he had ever seen of the operation for cross-eyes, commenting most favorably upon Dr. Toland's success. This, I believe, was the starting point of the great success of Dr. Toland as a surgeon.

Dr. Sims immediately procured for himself a neat case of eye instruments, and was not long in finding cases of each of these unseemly deformities upon which to try his skill.

I was present at his first operation for each. They were attended with beautiful success, and, being novel, were much talked about. He was, even at that day, a remarkably neat and pretty operator, and I think handled the knife with more grace and skill than any man I have ever known of his age. His first successes brought him other cases, until within one or two years he had about finished up and straightened all the cross-eyes and club-feet within forty or fifty miles of Montgomery. This proved to be his stepping-stone to general surgery, and within a few years more he had the largest surgical practice in the State, excepting, perhaps, that of Dr. J. C. Nott, of Mobile. He was a bold, fearless and dashing operator, and would undertake almost any case that any other surgeon dare encounter.

At this day we had no such thing as specialties in this part of the country, and a man who could operate for cross-eyes would be trusted to operate in the most formidable surgical diseases, and was also considered a good physician in all the various departments of medicine. So that his surgical reputation in turn brought him into general practice, and very soon he had the largest family practice that had ever been done in this place by any physician up to that time. His services were sought by all classes of people, and in all kinds of cases. He

was frequently, though still a very young man, called into consultation with the oldest and most experienced physicians of the place, men who had long been established in practice. He was immensely popular, and greatly beloved, so that he was a formidable rival to the best established physicians, and with all these facts it would not be greatly surprising if he did not always escape criticism. But when such things were carried to his ears, they never made the slightest difference in his feelings, or his deportment towards the authors of them, but he would meet and pass them with the same kind word and pleasant smile which was always his custom.

When Dr. Sims came to Montgomery we had no medical society here for the report of cases and the discussion of medical subjects. Very soon after he located here he took an active part in the formation of the old medical society, and was from that time one of the leading members in its affairs, and much of the *esprit du corps* which has since distinguished the physicians of the place was due to his example and influence.

Whilst he lived here he performed almost all the important surgical operations known to science at that day. He was from the first a hard student, and thoroughly methodical in keeping notes, records and histories of his cases, and in reading medical journals, and in keeping up with the medical literature of his day.

After the first year of his residence here he kept a private hospital in which to care for his surgical cases. This, after he first became interested in his speculum and in uterine surgery, he devoted exclusively to females, and especially to such cases in uterine surgery as were calculated to test the value of his speculum, in which he was already deeply interested.

I do not remember the precise year, but it was after he had acquired his great local reputation as a surgeon that he became deeply interested in working out what was at first known as his duck-bill speculum, the vaginal speculum which now bears his name, and which was the foundation of the brilliant reputation which he has since achieved. He interested his medical friends in the country in hunting up for him difficult cases of uterine diseases which had resisted treatment in the hands of other physicians, and he was delighted when among these he could find a case of vesico-vaginal fistula, that loathsome disease of woman, which had previously been regarded as the opprobrium of surgery, and which physicians rather shunned than courted. He became enthusiastic in this as he was in all his pursuits, and was not slow in finding cases of this disgusting disease, particularly among the slave population, whose management in accouchement was generally confined to the ignorant midwives of their own color. His efforts promised success from the start, sufficient to encourage him to continue his labors. Failures did not dishearten or repulse him, but he worked on and on, sometimes performing dozens of operations on the same case, until final success was achieved. During all this time he was devising methods and plans for his procedure in his operations, and was inventing instruments and appliances as collateral aids to his speculum. Of all his labors, trials and achievements in this direction I think he has somewhere published a statement, probably in the *American Journal of Medical Sciences*, or it may be found, perhaps, in his book entitled "Notes on Uterine Surgery," which I have not looked at lately.

If my memory serves me correctly, this brings us to about the year 1849, when in the midst of his investigations his health failed him, and he gave up much of his time to visiting different health resorts in order to regain it. This was a serious drawback to him, and came near ending his life. Having no regular or fixed income, and receiving now but little from his professional services, his financial affairs suffered greatly, and he again became hard pressed for ready means to support his family, which had grown to be larger and much more expensive than when he first came to Montgomery.

About the year 1851 or 1852, I think it was, he began to entertain the thought of leaving Montgomery, and about that time he sold his office to Dr. Nathan Bozeman, and took that gentleman into partnership with him. Dr. Bozeman has since that time attained great distinction as a gynæcologist, and is at this time one of the surgeons to the Woman's Hospital of New York. The plea which he gave for wishing to remove to New York was that he believed this climate was unsuited to his health, but it is also probable that his desire to find a larger field in which to display his discoveries in that department of surgery to which he had lately been devoting his time had much to do with his desire to change.

From the time he reached New York to make it his home (I think in 1853), I shall not attempt any further connected account of him.

I will say, however, after further and fully demonstrating the value of his speculum and various other instruments and devices used in his operations, and in displaying his own superior skill in the use of them, he devoted himself to the thought and purpose of founding, through his exertions, a great charity, in that large metropolis, for the treatment of the diseases peculiar to women. You all know of his labors in that direction, for they are now a matter of history. You all know how faithfully he labored with some of the great and benevolent of his own profession, and how he besought and obtained their aid; how he appealed to the hearts and enlisted the help of the influential, the opulent and the philanthropic; how he visited and obtained from the Legislature of the State a donation of fifty thousand dollars; how he besought the City Fathers for municipal aid, and procured from them a grant of land from the city which constitutes the site on which the hospital now stands; how he, with ceaseless and tireless energy, worked and planned with a devotion and singleness of purpose rarely met with, until the Woman's Hospital was an accomplished fact. This act of his alone shows what a magnetic power he must have possessed. How he, a stranger; he who had scarcely emerged from the obscurity of a country life, and himself in poverty, could so move the hearts of the people of a great city such as New York, and make himself the first and final cause of a great enterprise which, like the Woman's Hospital, should be a blessing to his race, shows how earnestly and untiringly he must have exerted his powers of persuasion over the minds of men. His effort in the scheme of establishing this hospital, strange to say, was not always without opposition from quarters from which it should have been least expected.

Dr. Sims' health was never robust, and yet he could endure an amount of prolonged physical exertion which was remarkable for one of his apparently delicate physique. He had lived beyond the age of three score and ten, and yet his death was a great surprise to those of us who knew something of the elasticity of his constitution and the great care he always took of his health. I have seen much of him within the last fifteen years; I have been with him often in New York, and have met him at various other places, and twice during that time he has paid long visits to Montgomery, and I was led to believe that he would probably reach four score and ten, so perfect seemed his physical and mental preservation. When I saw him last he looked as if he had not more than reached the meridian of life, and he told me he thought he would live to be ninety—though at that time he had no idea of any organic trouble about his heart. Only a few days before his death, I received two letters from him, written on two consecutive days, in which he says: "You can't imagine how disappointed I am that I could not make you all a visit this fall. But if I live another year, you may count on seeing me in Montgomery. But for that dreadful pneumonia, I would certainly have lived to be ninety. But my heart gives me so much trouble that I have given up the idea of longevity, still I hope to hold on a while longer." Whilst he was in Rome last, in one of my letters

to him I begged him to stop his wandering, cosmopolitan life, and settle down in New York, and die there when it should please Heaven to end his days. In his reply, under date of Rome, January 14, 1883, he says: "I spend most of my time in Europe because my life is more pleasant here; my fees are much larger, I make more money, my work is lighter, and I have more leisure." And in the last of the two letters referred to above, he again refers to the same subject, and says: "I cannot follow your advice and settle in New York. I could not possibly do the work there. I must go, and will sail on Thursday, the 8th, on the Celtic; I shall remain about three weeks in Paris, on my way to Rome." During the latter part of the summer, my letters from him were written from the residence of Mr. Yulee, formerly United States Senator from Florida, but now living in Massachusetts. Whilst there he was occupied chiefly in dictating to a stenographer his autobiography. He sent me advance sheets as they had been printed by a type writer. It consists of a brief history of his life, modestly told, interspersed with little anecdotes, and life-stories which no one could tell so well as himself, if at all. It is deeply interesting, and reads like a romance. He did not expect to complete it before he reached Europe, but I sincerely hope he has brought it far enough up to make its completion an easy task for one of his children.

Dr. Sims' domestic relations were most fortunate and happy. The wife who survives him, and who now sits in the tearful and hopeless agony of her grief within the precincts of Madison avenue, was the sweetheart of his boyhood. She was a loving and cheerful companion, a wise counselor, a true helpmeet; and throughout his brilliant but chequered and eventful life she shared his prosperity with joy and gladness, and bore his adversities with becoming patience and resignation; but at all times and under all circumstances she has been to him "like the ivy to the oak, which clings closest in the storm." It was beautiful to see him in the sanctuary of his own home, when surrounded by his wife and children, and witness their common devotion, where even in his advanced age he seemed as the "big brother" of the family. And when in their youth, with but two little children hanging upon their hearts, I used to visit them at their modest little home in this place, they made a picture of sweet and confiding domestic bliss which has not, in all these changing years, left my memory. At that time I had no matrimonial ties or expectations, but their intercourse I am sure left a charm and a lesson on my heart which has not been without its pleasures as well as its profits. In later years, he has expressed to me the same chivalric and tender devotion to his old sweetheart, and assured me that all he was in this world was due to his fortunate selection of a wife.

As an author Dr. Sims stood well. He was never a voluminous writer on any of the subjects of which he treated. His work entitled "Notes on Uterine Surgery" was his largest, and was quite a respectable volume. It was printed in London in 1866, and was reprinted in several languages. It created quite a sensation from the number of original, novel and valuable lessons which it taught. It also met with some sharp criticisms, and, perhaps, it was not entirely free from blemishes. But had he lived according to his expectations, he would have corrected all these in good time, as it is known he was engaged in re-writing it, and had already completed several new chapters and had revised others. Take it, however, as it stands, and with all its defects there has been no work published on uterine surgery within the last century that has been as full of original thought and invention, or that has contributed so largely to the advancement of gynæcology as this book has done. I will not attempt to go into detail about his writings. Although I am somewhat familiar with them all, I have no list of them with me. Though his contributions have not been long, they have not been infrequent, and many valuable essays on different subjects have been furnished by him to the medical press of his day. It is not the length or the num-

ber of the books, however, which a man may write, but it is the originality and the value of the material with which he fills them which makes them desirable. His were all terse, original and eminently practical. His style was peculiar, it was altogether didactic, and it was his own.

I cannot, either, undertake in the short space of time allotted to occasions like this to go into detail in enumerating the number of instruments which he invented, or the operations or operative procedures which he devised or planned, but their number was immense, and shows how fertile of ingenuity was his brain, and how busily and skillfully it must have worked. He does not seem to be entitled to priority in the discovery of metallic sutures, but he was certainly entitled to great credit in their revival and the vast prominence which he gave them.

Dr. Sims' clients, especially in Europe, seem to have been people of great wealth, and from his acknowledged superiority in his special department he was able to command the largest fees, and yet he never became rich. He also had a proper appreciation of the value of his services, and usually demanded an adequate honorarium where his patient's purse could afford it; but when it came into his possession it seems that it was either lavishly spent or unwisely invested. (We are glad to learn, however, he left a competency for his family.) He was also a man of large charities. But it is unnecessary to dwell upon these minor points in his life. The day which made him great was the day when the idea of his speculum first dawned upon him. That day when he first conceived the thought of throwing an abundance of light into the vagina and around the womb, and at the same time obtaining ample space to work and ply his instruments. This alone is enough to carry his fame down to the remotest ages, and his panegyrist will need no more brilliant facts than these on which to rest the immortality of his name. This instrument caused his name to flash over the medical world like a meteor in the night.

Gynæcology to-day would not deserve the name of a separate and cultivated science but for the light which Sims' speculum and the principles involved in it has thrown upon it. It has been to diseases of the womb what the printing press is to civilization, what the compass is to the mariner, what steam is to navigation, what the telescope is to astronomy, and grander than the telescope because it was the work of one man. Those great philosophers, Galileo, Gregory, Herschel and Sir Isaac Newton, all claim and deserve successive parts of the telescope. Sims alone discovered his speculum, and like Minerva, from the brain of Jupiter, it sprang from his hands alone full fledged and perfect as when he gave it to the world. His work was so complete that it is said that no alteration or modifications which have since been made upon it up to this time have been regarded as improvements. The distinguished Dr. Emmet, of New York, who is peer to any living gynæcologist, and whose reputation is world-wide, has been heard to say, within the last few years, that so perfect was Sims' speculum and other instruments that he had never been able to improve upon one of them. No man can divide the honor of his speculum with him, and he deserves to be called the father of gynæcology.

Thus, from starting amid the sloughs and swamps of Alabama, having for his patients the most humble in the land—often spending his nights by the bedside of the sick found in the slave huts of these localities—without family influence, poor, and with nothing to aid him, save a strong will and careful preparation combined with a devotion to purpose, he rose by the splendor of his own genius above all obstacles, and before he had reached the meridian of life, we find him one of the acknowledged discoverers and benefactors of the world, and ranking as one of the foremost men in his own country. And a few years later we hear of him in all the great capitals of Europe, sometimes the guest and pet of Emperors, often receiving honors and distinctions from learned and enlightened scientific bodies,



courted by the élite of his own profession, sought by the nobility, and receiving titles and decorations from courts representing and boasting the most splendid civilization the world has ever known.

I believe that before the next decade shall have half past away, when time with its silent throb shall have buried those antagonisms, rivalries and jealousies which often spring up around the paths of great discoverers, it will be the settled verdict of the medical men of the world, that Sims has lived to a greater purpose than any man in any age who has preceded him in his special department.

Gentlemen, there is one page in the life of this great man, one scene in the living panorama of which he constituted a part, that I would fain not disturb, and one on which I would prefer to drop the mantle of oblivion, were it not that it is already a matter of history, and perhaps it is due to the memory of Dr. Sims that I should refer to it.

I allude to the night when, as one of the surgeons, he last met the governors of the Woman's Hospital, and which closed forever his connection with that institution.

It is said that republics are ungrateful, and it therefore should not be surprising if even the governors of charitable institutions should sometimes forget their greatest benefactors, and smite the cheek of him whose hand was chiefly instrumental in calling them into existence. The Woman's Hospital was Dr. Sims' bantling. The creation of its germ and the conception of its possibilities was the outgrowth of those discoveries which emanated from his brain alone, and its final success was due to his untiring exertions. He was proud of his work; he was proud of the child of his own life, and when the Woman's Hospital was completed, he regarded it as the largest pearl in all his greatness—the central jewel in his crown of glory. But whilst it was the glory of his life, it was its humiliation too!

Those governors, who were in fact but little more than figure-heads, so far as the privilege and duties of the surgeons were concerned, had taken upon themselves the privilege of regulating the affairs of the operating room, and of saying to the surgeons that only fifteen guests or spectators should be permitted to be present at any one operation. Dr. Sims took this occasion for telling them that he had not obeyed this order of theirs, and would not; and that if they insisted on enforcing this rule his resignation was at their disposal. He claimed the right to invite such numbers as his own judgment and inclination might dictate.

Their action in assuming to restrict his privileges in this respect he regarded as without authority. To a man of honor their action must have been offensive.

It in effect accused him of being ignorant of the surgeon's duties in the sick room, and wanting in a proper regard for the feelings and sensibilities of his patients. All this made it insulting and galling to him, and especially as he knew it to be an unauthorized invasion of his own prerogatives, inherent to the office which he held, and altogether outside of their accredited duties.

All the world over, the creed of common courtesy which exists between the laity and profession makes the physician the autocrat of the sick chamber, and the privilege of the surgeon as to whom he will invite to his operating table or room has never before been restricted. If it was wrong to invite all who desired to attend, or all whom the surgeon might wish to witness his operation, why invite fifteen? It was not necessary to invite any! The hospital service afforded all necessary assistance. If it would not offend the sensibilities of a woman to have fifteen guests present, would it shock her modesty very greatly to have eighteen, or twenty, or fifty, or a hundred, or any number that the room could accommodate conveniently? Besides, it is well known that the patients in this hospital are rarely ever seen by the spectators until after they have been placed upon the operating table, and under the influence of an anæsthetic when the table is rolled into position. And another even stronger reason exists against

this restriction. To serve all the purposes in the interest of woman, for which this hospital was capable, it was doubtless intended or in contemplation by Dr. Sims from the first that it should be used as a school, so far as possible, for teaching physicians from the country, or city, or other cities, or from other States or nations, who might temporarily be in New York for the purpose of studying that class of diseases, and would like to see these operations.

But suppose these governors could find nothing in all these facts to make them retrace their steps, could they find nothing in the fact that Dr. Sims thought they were in error and wished them to re-consider their unjust and unwise action? Could they not have conceded something to the opinions of the man who had created the hospital, who had devoted fifteen or twenty of the best years of his life to its service, who had passed many weary days and sleepless nights in the promotion of its interest, and had carried it upon his heart as none of them had ever done? They knew he had placed himself in a position in relation to the order which they had issued, from which he could not recede without loss of dignity or even honor; they knew he did not wish to sever his connection with the hospital, and they knew he did not wish his resignation accepted, and yet, with a heartless and cruel inflexibility, they refused to abolish their miserable order, and accepted his resignation; thus stabbing him in the most vital spot and mortifying him as nothing else had ever done.

In this difficulty Dr. Sims had the sympathy of a large portion of the medical men of America. And as an expression of their sentiments in this direction, the American Medical Association, at its very next meeting, unanimously elected him its president. He was elected in Louisville in 1875, and presided at the meeting held in Philadelphia the succeeding year, known as the "centennial session." This was the very highest honor which could have been paid him by the medical men of his own country. Whilst Dr. Sims in every way deserved this high compliment, and was himself an honor to the position, I yet have reason to know that he was selected at this particular time, over other distinguished aspirants, not only that they might thus express their admiration of his exalted worth, but also in approval of the manly, dignified and honorable position which he had assumed and maintained in his controversy with the managers or governors of the Woman's Hospital.

When the names of these sickly, sentimental governors shall long since have passed away, with their foolish rules and regulations, and even their remotest connection with this hospital shall have been forgotten by the world, the name of Sims shall be known and read of all men as its great founder and patron, and emblazoned all over its walls, "from turret to foundation stone," as its ensign-armorial and shield to guard it against evil.

Nor can posterity accept the imputation as true or just, that the man who had planned and schemed and worked, even in the midnight solitude of his office, that his life might finally achieve this good to women, be the one to be false to any of the proper delicacies or courtesies due to her sex. I will not pursue this subject further—it is not a pleasant one to dwell upon. He is now far beyond the cruel malice or petty jealousies of those who persecuted him, and the manhood which recognizes the great value of his life will see to it that his name does not suffer neglect in the grave.

Pardon me, gentlemen, for a little personal allusion to myself connected with Dr. Sims.

From the time when Dr. Sims located in Montgomery, up to the period when he left to cast his lot in the great city of New York, he was my warm and devoted friend, and my loved companion. He was open and confiding to his friends. I was proud of his confidence and affection, and gave him in return the full measure of my own. The act which I am about to refer to is known to but a few only of the older members of this Body, and is this: A few weeks or

months after he had removed from Alabama to New York, a little misunderstanding grew up between us which resulted in our estrangement, and for many years afterwards all intercourse between us ceased. This has always been to me one of the bitterest episodes of my life, and memory never recalls the event without a feeling of sadness and regret. In this rupture I was probably more to blame than he, and I have no doubt that, had not our paths in life widely diverged at this time, the heartburning which our separation had caused to last for long years would have been forgiven and forgotten in a few days.

In 1868 I made a visit to New York, and whilst I was there he returned from a prolonged visit to Europe. The first time we met was at the opening of the Bellevue Medical College, when Dr. L. A. Sayre was to deliver the introductory address. We were each, without the knowledge of the other, invited to go on the rostrum, and were to meet in the faculty room to join the faculty for that purpose. I did not know that Dr. Sims was in the room, and at the time I entered he did not observe me, but soon I felt some one clasp me around the neck with both arms, and looking, I observed my long-lost friend Sims, who only said, "Baldwin, my old friend." We had no words of explanation, but from that moment all feeling of resentment left my heart, and again I loved him as a brother. Since then our intercourse by letter and otherwise has been constant, confidential and free.

I look back now upon my association with him as one of the providences of my life, and his death as one of its bitterest afflictions.

ARTICLE II.—USE OF PEROXIDE OF HYDROGEN IN DIPHTHERIA. By R. J. NUNN, M.D., Savannah, Ga., Physician to the Female Department of the Savannah Hospital.

THE TWO THEORIES OF THE ACTION OF THE DIPHTHERIC POISON. THE CONSTITUTIONAL THEORY.

The treatment of diphtheria is influenced no little by the views entertained by the attending physician as to the mode of action of the poison.

There is a large class of practitioners who look upon the disease as a constitutional one, having local manifestations, and deem any interference with the inflamed membrane as not only useless but positively injurious, as liable to increase the local inflammation, and thus aggravate rather than lessen the virulence and danger of the malady.

Such practitioners are naturally led to depend largely if not entirely upon internal medication and external local applications. They, of course, recognize the danger of early suffocation, the death of the patient from mechanical obstruction of the larynx, but they look upon the topical application of any of the local remedies at present in use as hastening rather than retarding the fatal termination of the case.

If to these gentlemen a means can be presented of removing the membrane and of preventing its spread, the application of which will not be irritating, there is little doubt that they will willingly give it an external trial, recognizing the fact that by its use the threatening fatal issue of the case may be somewhat postponed, valuable time may be gained in which their constitutional remedies will have an opportunity to act, and thus their chances of saving their cases may be increased.

The attention of these physicians is directed to the remedy which is the subject of this memoir, and which appears to possess in no small degree the powers and properties desired. It is hoped they will not hesitate to place it upon trial and use it for what it is worth, even though it may not quite realize all their anticipations when tried upon the first few cases.

The best mode and manner of employing a remedy are only to be learned by practice and experience, and early failures of any means of medication should not

always be ascribed to the powerlessness of the medicine, or to its unsuitableness to the class of cases for which it has been recommended, but rather to a certain want of dexterity in its application, or lack of the knowledge of essential surroundings necessary to insure the full and complete results of its employment.

#### THE LOCAL THEORY.

It is questionable if the belief in the primary local origin of diphtheria and the secondary constitutional infection is not most widespread among the members of the medical profession; certain it is that very few of them would venture to treat a case of diphtheria without having recourse to various local applications, most of which have some action upon the exudation, combined with more or less of an antiseptic character. To these gentlemen, the peroxide of hydrogen cannot but commend itself as worthy of an extended and impartial trial after a careful perusal of the following brief and imperfect account of some of its valuable properties and singular reactions, peculiarly its own, when placed in contact with these false membranes, and also as a chemical reagent.

#### ACTION OF TOPICAL APPLICATIONS UPON THE DEPOSIT.

For convenience in discussing the subject of this paper, the behavior of the medicines applied to the membrane may be classified as follows:

1. Hardening the membrane as in the action of tannin.
2. Softening or dissolving the deposit as upon the application of pepsin.
3. Antiseptic, *i. e.*, destroying the power of growth in the abnormal elements:
  - (a) Germicidal, being destructive of the growth, but not of the spores, as carbolic acid.
  - (b) Sporicidal, when the destructive power of the medicine extends to the spores, as the biniiodide of mercury, etc., including probably the peroxide of hydrogen.
4. Some combination of the above actions. It is not assumed that this classification is at all scientific. It is recognized as arbitrary, and is adopted simply for convenience in discussing the subjects appertaining to this paper.

#### HARDENING THE MEMBRANE.

The underlying principle involved in the use of this class of applications is the change in the condition of the pseudo-membranous deposit, which renders it an unfit soil for the propagation or spread of the active agents at work in the disease. Unfortunately, however, the very principle upon which the action of this class of remedies is founded demonstrates a proportionately increasing obstruction to the activity of the medicine itself, in a ratio increasing as the remedy is efficacious.

The agent employed comes first in contact with the superficial coating of the membrane, hardening it and condensing it as a beating rain upon a clay soil. After this takes place, the action of the medicine is limited to the surface in a great degree, having little effect upon the burning mine beneath in which the fire goes on in its path of sure and certain destruction.

The scathing effects of the cold wintry wind may be fatal to the leaves and blossoms of the tall and stately trees, which by their death protect the poisonous toadstool flourishing in the dense verdure beneath.

#### DISSOLVING THE MEMBRANE.

An ardent search has for some time been progressing to find some substance which would dissolve the deposit of diphtheria.

Gutman proposed the use of *pepsin*, and its employment has in many cases

been attended with success. Later on *papyotin* was suggested as a digestive or dissolving agent, similar in its action to pepsin, but many times more active, and moreover possessing, it is said, the no less singular and valuable property of acting equally as well in fluids having an alkaline or an acid reaction. (The name of the proposer of this remedial agent has unfortunately escaped my memory.) Both of these agents, and, indeed, all of the others, such as lactic acid, lime water, &c., put forth as solvents of the membrane, lack the power of destroying the vitality of the germs, and often it seemed as if the spores simply floated away to attach and propagate themselves upon other spots of suitable soil. This is the weak point of this class of remedies when used alone.

It is a fact not generally known, if at all mentioned by any writers upon the subject, that bacterial life is suspended by pepsin, papyotin, &c. This assertion may be easily verified by adding pepsin to some putrid organic fluid, when it will be found upon examination under the microscope that the evidence of life, *i. e.*, motion, has ceased in the previously active bacteria; indeed, many of the bodies will apparently be disintegrated. This change, however, is only temporary, as after a variable interval of time, depending it would seem upon external causes, vitality again appears. This action may in part account for the beneficial effects produced by pepsin, papyotin and like chemical ferments upon the deposit of diphtheria.

#### ASEPSIS.

It will be observed that the result of the application of antiseptics to the diseased parts may be either the death of the growing tissue or the destruction of this and the spores also. Such an action is not difficult to comprehend; it constantly takes place within the sphere of our observation in the microscopic world around us. The parching heat of a summer sun may scorch and destroy whole fields of verdure, but the seeds remain unscathed, full of vitality to reproduce their kind. Within an hour a bacterium may run its round of development and propagation and produce new fields of destructive germs.

A review of a number of cases and of reports of physicians in various parts of the world would lead up to the conclusion that the disease we call diphtheria is not the effect of one organism alone, or if it is so, that the powers of resistance to remedies varies in certain stages of its growth, or in various localities, subject perhaps to certain climatic differences of which we have heretofore failed to take cognizance. This is the only way by which we can account for the fact that remedies which are eminently successful, nay, specific in their action, in one part of the world, prove utterly powerless in another, for it is not to be supposed for a moment that so many writers and teachers, celebrated alike for their learning and close observation, could be mistaken in the disease, or that gentlemen would wilfully misrepresent their cases through a desire to appear more successful than their fellows in the treatment of this dreaded malady.

#### COMBINING THE HARDENING AND THE ANTISEPTIC ACTION.

In 1881 a paper was presented from me to the section on diseases of children of the American Medical Association, in which the use of a local application was advocated having in view the hardening effect of certain remedies combined with extended antiseptic action. Tannin was the hardening agent chosen, although some other might have been found to answer equally well, or it may be better. To this was added several antiseptic remedies with the design of acting upon different organisms if such should be present. The prescription met with no little ridicule at the hands of certain medical editors who failed to see the underlying principles upon which the combination was founded, but it nevertheless has done good service.

## COMBINING THE SOFTENING OR SOLVENT WITH THE ANTISEPTIC ACTION.

Since Gutman published his suggestion of the treatment of diphtheria by pepsin, my attention has been chiefly directed to finding a remedy, or combination of remedies, which would dissolve the membrane and act as an antiseptic at the same time. Pepsin and papyotin with various germicides have been tried, and it cannot be said altogether unsuccessfully; but peroxide of hydrogen seems to possess qualities justifying its employment in this disease far in advance of anything else at present known to science. It exercises upon the membrane the solvent action so much desired, and while possessing antiseptic powers of a high order, it is not irritating in its action upon the mucous membrane.

## HISTORY OF PEROXIDE OF HYDROGEN.

In 1818 Thenard, by the action of acids upon peroxide of barium, in the presence of water, obtained peroxide of hydrogen, the water being oxidized by the oxygen of the barium salt, thus—



Although a great many chemists have investigated this substance and the mode of its preparation, the process of Thenard is still considered the best by which it can be obtained. As a matter of chemical information it may be mentioned that the dilute solution of peroxide thus obtained can be concentrated by evaporating in a vacuum at a temperature of less than 68° F. or by freezing out the water. Thus obtained, the concentrated peroxide is a sirupy liquid of sp. gr. 1.453, yielding 475 volumes of oxygen.

## REACTIONS OF PEROXIDE OF HYDROGEN.

This pure concentrated body has a peculiar odor, is transparent and colorless, like water, than which it is a little less volatile. It will not freeze, is decomposed at ordinary temperature, and by a great number of bodies. In water it dissolves readily and the dilute solution is sufficiently stable, but its keeping qualities may be improved by acidulating the solution with a little muriatic acid, while its decomposition into oxygen and water is effected by stronger sulphuric acid.

Hydrogen peroxide is itself both an oxidizing and a reducing agent, under some circumstances yielding up its oxygen to oxidize other bodies, and under others, withdrawing the oxygen from bodies already oxidized. Sometimes it acts so energetically that explosions have resulted.

It is decomposed into water, with the evolution of oxygen, by gold, silver, and spongy platinum, by blood, fibrin, animal albumen and some other organic substances, these bodies remaining unaltered. It reduces the oxides of certain metals, producing either an oxide less rich in oxygen or else the metal itself.

Contrary to what would be predicated by a knowledge of the constituent elements of the compound under consideration, phosphorus, one of the bodies having the utmost avidity for oxygen, is not acted upon at all, while white indigo is reoxidized to blue, and the blue under certain conditions sometimes reduced to white. Arsenic and sulphuric acid are formed from arsenious and sulphurous acids and metals, as iron for example, are oxidized. Although the concentrated peroxide of hydrogen could hardly be mistaken, still, very weak dilutions may well be confounded with ozone. It is questionable, indeed, whether the air itself does not contain a certain proportion of one or other or of both these bodies, and whether the oxydizing effects produced by the atmosphere is the result of the presence of minute quantities of ozone, of peroxide

of hydrogen, or of both, has never yet been accurately determined; for although tests have been proposed by Houzeau, Schoenbein, etc., it must be remembered that the results observed with ozone can equally well be obtained with attenuations of peroxide of hydrogen. Thus the bleaching action of the air, at one time credited to ozone, is now claimed for peroxide of hydrogen. Indeed, its chief use in the arts is as a bleaching fluid, for which purpose it has, in many instances, supplanted chlorine, and it will do so to a still greater extent as the cost of its production decreases.

Although the dilute solutions of peroxide of hydrogen are but slightly, if at all, irritating, the concentrated oily liquid, which the pure peroxide forms, blisters when applied to the skin, causing at the same time no inconsiderable amount of irritation. These curious contradictory actions, this bleaching power and the property of disinfection, could never have been presupposed from its chemical composition, which is nothing but water, with another atom of oxygen added, to which is due the

#### OTHER NAMES

by which it is known; such as oxide of water, oxygenated water, etc.

It must not be supposed that because peroxide of hydrogen produces many of the effects once attributed to ozone that therefore the existence of ozone has been proved to be a myth, on the contrary, ozone has been produced from pure oxygen, by the action of light alone, in a late experiment by M. Dessau. This distinguished chemist showed that oxygen kept in the dark did not show the presence of ozone, but after exposure to the rays from a Drummond oxyhydrogen lamp for twenty-five minutes, ozone was distinctly shown on testing with iodide of starch.

#### OZONE—ITS ANÆSTHETIC AND HYPNOTIC EFFECTS.

Prof. Binz, of Bonn, has shown that when pure ozone is suitably diluted with air it can be inhaled without producing irritation of the lungs, both by man and by the lower animals. His experiments demonstrated that particularly in man sleep is produced by the inhalation. "The breathing before sleep began was quiet and full, the persons experimented upon said that it was easy and comfortable, and the passage from the waking to the sleeping state was a feeling of the most agreeable indifference." "The pulse never exhibited any perceptible change during the experiment, nor was there any alteration in the pupil of the eye or the color of the face." "Owing to the very transitory effect of ozone, it will never take the place of nitrous oxide for anæsthesia for surgical purposes. Binz himself does not lay much weight upon the practical importance of the ozone sleep, but hints that further experiments in this direction may lead to important results."

It is, therefore, not impossible that, in addition to its other valuable properties, the spray of the peroxide of hydrogen persistently inhaled may exercise a soothing and calming effect upon the patient.

#### POSITION OF PEROXIDE OF HYDROGEN IN THE SCALE OF ANTISEPTICS.

That the peroxide of hydrogen is possessed of high aseptic powers will be seen by the following table of Dr. S. Miguel:\* It gives the weight in

\* See *Medical Record*, Nov. 3, 1883—498.

grammes or fractions of grammes of each of these microbicides capable of rendering imputrescible one litre of beef tea :

Biniodide of mercury.....	0.025	Permanganate of potassium.....	3.50
Iodide of silver.....	0.03	Aniline.....	4.00
Oxygenated water.....	0.05	Divers alums.....	4.50
Bichloride of mercury.....	0.07	Tannin.....	4.80
Nitrate of silver.....	0.08	Sulphurate of sodium.....	5.00
Osmic acid.....	0.15	Arsenious acid.....	6.00
Chromic acid.....	0.20	Boric acid.....	7.00
Iodine.....	0.25	Hydrate of chloral.....	9.50
Chlorine.....	0.25	Salicylate of soda.....	10.00
Hydro-cyanic.....	0.40	Sulphate of the protoxide of iron.....	11.00
Bromine.....	0.60	Amylic alcohol.....	14.00
Chloroform.....	0.80	Sulphuric ether.....	22.00
Sulphate of copper.....	0.90	Butylic alcohol.....	35.00
Salicylic acid.....	1.00	Propylic alcohol.....	60.00
Benzoic acid.....	1.10	Borate of soda (borax).....	70.00
Chromate of potassium.....	1.30	Ethylic alcohol.....	95.00
Picric acid.....	1.30	Sulphocyanide of potassium.....	120.00
Ammoniacal gas.....	1.40	Iodide of potassium.....	140.00
Thymic acid.....	2.00	Prussiate of potash.....	185.00
Chlorides of lead, cobalt and nickel... ..	2.10	Glycerine (official).....	225.00
Mineral acids.....	2.00 to 3.00	Urea (natural).....	260.00
Binetrobenzine .. ..	2.60	Hyposulphite of soda.....	275.00
Essences of bitter almonds.....	3.00	Chlorate of soda.....	400.00
Carbolic acid.....	3.20		

“ Most of these substances act by paralyzing the evolution of the microbic germs, and by destroying the adult bacteria, but they have no effect on the germs of the bacteria. Certain substances, however, have by their chemical action the power of completely destroying the germs of the bacteria, and to this class Dr. Miguel has applied the term ‘ sporicides.’ The principal among them are the preparations of mercury, and the salts of silver, which in a solution of 1-10,000 destroy in a few days the germs of microbes as surely as a dry temperature of 150° C. (302° F.) prolonged during several hours. Iodine, chlorine and bromine, and the mineral acids come next, but the microbicide par excellence is heat, which, raised to 110° C. (230° F.) for liquids, and to above 150° C. (302° F.) for solids, has been found sufficient effectually to destroy the germs of the microbes.”

From the high position which the oxygenated water (peroxide of hydrogen) holds in this table, standing third on the list, and among the mercury and silver series, it may be surmised that it is also a “ sporicide ” of great power, and quite a number of rough experiments made by myself in this direction serve to confirm this view.

#### THE COMMERCIAL PEROXIDE OF HYDROGEN.

What is sold as peroxide of hydrogen is in reality but a dilute solution of it, containing from 5 to 15 volumes of the oxygen. This is quite strong enough for any medicinal use, and will keep for months at a temperature somewhat less than ordinary summer heat—70° F. Some makers add a little acid, which lessens the tendency to decomposition, which would be increased by the presence of alkalies and salts.

#### COMMERCIAL VARIETIES OF PEROXIDE OF HYDROGEN.

There exists in the market several makes of peroxide of hydrogen.

1. An American make which is very acid, exceedingly irritating, and should not be used.

2. An article made by Messrs. Robbins & Co., of London, which is quite an improvement upon the American, but is still much too irritating to be employed.



3. A solution, of unknown origin, procured through Messrs. Solomons & Co., of this city, and labeled, "Peroxide of hydrogen, chemically pure, 15 volumes. For external use." This seems to be very similar to that manufactured by Messrs. Robbins & Co.

4. A specimen in packages similar to No. 3, and procured from the same firm. This is labeled, "Peroxide of hydrogen, chemically pure, 15 volumes. For internal use." This No. 4 is bland and unirritating, and at the same time seems to act quite as energetically upon the deposit as the other more irritating varieties. The flavor of this article is strongly suggestive of chlorine, and one is tempted to ask if chlorine and oxygen are not forms or combinations of still more primary, but as yet undiscovered, elements.

5. A specimen having the same appearance as No. 3, but bearing the following label: "Peroxide d'hydrogène, garantie de capacité de 12 volumes, fabriqué par Charles Marchand." These bottles are wrapped in *red* paper.

6. An article from the same manufacturer as No. 5, but bearing a label showing it to be for internal use, thus: "Peroxide d'hydrogène, for internal use, garantie de capacité de 12 volumes, fabriqué par Charles Marchand." These bottles are wrapped in *straw-colored* paper.

For both of these latter varieties, Nos. 5 and 6, Messrs. F. Alfred Reichardt & Co., 96 Liberty street, New York, are the agents.

The remarks applied to Nos. 3 and 4 are equally applicable to Nos. 5 and 6. There are, doubtless, many other varieties to be had equally as good as these already mentioned, but these just spoken of are the only ones that have come to this market.

Physicians should see to it that the proper variety of the peroxide is dispensed. It is not impossible that druggists might, through ignorance, carelessness or design, substitute the cheaper and more irritating article intended for external use for the blander and more expensive variety designed to be employed internally. The taste will be a fair guide in this matter, as the peroxide for external use is much more acid than the other.

#### GENERAL USES OF PEROXIDE OF HYDROGEN.

While possessing such active powers for good, it must not be forgotten that its employment is safe and its application harmless, and that it is equally efficacious in all forms of membranous or pseudo-membranous deposit, such, for example, as the aphthæ of infants and the follicular sore throat so often confounded with diphtheria, while upon the living tissue it acts not at all. For these reasons this is, of all others, the remedy to place in the hands of the general public, to be used in all suspicious cases of throat trouble until the opinion and advice of a physician can be obtained. It is to be hoped that these suggestions will meet the approval and elicit the co-operation of physicians generally, and that they will instruct their patients in the use of peroxide of hydrogen in these cases, and recommend each family to be provided with a supply.

#### BACTERIA—THEIR REPRODUCTION AND DEVELOPMENT.

Whether or not bacteria are the active agents in diphtheritic poisoning, the fact of their presence and rapid multiplication in all such cases is well proved, and their disappearance as the disease is cured is also sufficiently well established. It is therefore not by any means unscientific to associate the disease with these organisms and to direct our efforts towards their destruction.

Bacteria increase by fission, that is to say, that one element divides itself into two, these two into four, these four into eight, and so on indefinitely, an hour—or, under favorable circumstances, even less time—being sometimes suffi-

cient for the completion of the process. Astonishing as it may seem, yet it has been computed that from one bacterium could come after twenty-four hours more than sixteen million descendants, and nearly three hundred billions in forty-eight hours. The bacterium *termo*, according to Cohn, would at the above rate of increase in twenty-four hours fill a cube one-thousandth of an inch across each side, and in forty-eight hours the mass would measure a pint; while if the process went on unchecked, five days would suffice to produce a quantity of bacteria equal in weight to the waters of the oceans of the world.

Of course nothing of this kind takes place for any considerable length of time, as the absence of the elements necessary to the reproduction of the micro-organism or the presence of unfavorable conditions check this rapid development, but such calculations are useful as showing the necessity that exists for prompt action in cases of diphtheria.

That this is no sensational story, each one can see who will take the trouble to make the calculation. It is a simple arithmetical question, the facts in the case being two which can be verified by any one sufficiently accomplished in the use of the microscope to measure a bacterium, and having sufficient patience to watch the process of its development, time and mode of multiplication.

The facts just alluded to are: 1. The organism taken as an example of the class *Bacterium termo* is one twenty-five thousandth (1-25,000) of an inch transversely, and about double that in length. 2. The rate of reproduction is once an hour.

#### MEDICAL USE OF PEROXIDE OF HYDROGEN.

A word as to the medical uses of peroxide of hydrogen may not be out of place here.

Peroxide of hydrogen was first introduced as a medicine by Dr. Richardson in 1858. Not even water itself is capable of the extensive application in medicine and surgery which can be made of this substance. It will disinfect the air, the secreta and excreta, supply oxygen for respiration, purify and cleanse the skin and hair; it can be applied with advantage to simple and specific sores and ulcers, to sinuses of various kinds, to pyogenic membranes in all situations, to lymphous, aphthous and pseudo-membranous deposits everywhere, and wherever bacterial life is to be destroyed internally and externally. In fact, in ways too numerous to mention, but suggested by a knowledge of its wonderful properties, this substance has during the past four years done me good service. The fact that it yields up its oxygen with the greatest ease, and at the same time leaves behind it no corrosive or irritating substance, nothing but pure water—this is the key to its proper employment in medicine.

#### USE IN MERCURIAL STOMATITIS.

Although the foregoing description of the extraordinary properties of this remarkable substance would naturally suggest its use in mercurial stomatitis, it may be well to draw special attention to its value in this connection. In many cases of mercurial salivation in which it has been used, its employment has been productive of most satisfactory results, especially as to the attendants and visitors to whom the fetor is always a most disagreeable symptom, as it also generally is to the patient. In many cases in which it has been employed this disgusting odor has been either entirely removed, or else it has been rendered so faint as to be almost imperceptible.

Pasteur, Koch, Buchner, Law, and others, have demonstrated that many diseases are the result of the presence of bacteria in the system, for which oxygen has been shown to be the natural antidote. In the treatment of all these diseases the introduction of oxygen into the system by every possible channel, by re-

spiration, by cutaneous absorption or by digestion, is indicated as a most scientific procedure, and to accomplish all this science has given us no other agent so convenient and universally applicable as peroxide of hydrogen.

#### EXPERIMENTS OF PASTEUR AND OTHERS.

The results obtained by Pasteur by cultivating the bacterial elements of disease are well known, but it is interesting to refer to them here for the purpose of analyzing somewhat their bearing upon a plausible explanation of the action of peroxide of hydrogen upon the deposit of diphtheria.

Pasteur found that when a virulent bacterial poison was cultivated in the presence of oxygen it lost much of its virulence, and the disease resulting from its inoculation was of a much milder character. This is precisely what takes place in the diphtheritic membrane. In a case treated with peroxide of hydrogen, the reproduction of such germs as are not destroyed takes place in the presence of oxygen, and the strength and activity of the poison is constantly lessened, until finally it ceases to act altogether.

It cannot be too often remarked that it would be well for physicians to keep this principle in view and act upon it in the treatment of all diseases of a bacterial origin, or indeed wherever bacteria are suspected of being in any way connected with the disease. The difficulty of procuring oxygen may heretofore have been a bar and a hindrance to its general employment, but as the peroxide of hydrogen furnishes the gas without the least trouble, and in its most active form, there is no longer any excuse why its use should not become general.

#### ADVANTAGES OF AN EARLY APPLICATION.

From a consideration of the action of peroxide of hydrogen upon the deposit of diphtheria, and the rapid reproduction of bacteria, it will at once be evident that the earlier the application of the remedy is adopted the better. While the membrane is thin and friable, the action of this reagent is thorough, quick and effective, the deposit often melting down before a spray of it like sugar in water, to be reproduced in a short time and again removed, until the denuded tissue beneath can be plainly seen free from this characteristic covering. In this way also the spread of the membrane is checked, and its limits often sharply circumscribed, until after some days, which it seems to me, is within two weeks, the germinating power of the membrane is conquered, the poison ceases to produce its kind, no more deposit takes place, the denuded tissues heal, and the cure is complete.

#### DANGER OF DELAYED APPLICATION.

If, unfortunately, the application of the peroxide is postponed until the membrane has thickened, then is the resisting power of the deposit increased, and the remedial action of the medicine proportionately diminished. Unable to penetrate the tough leathery membrane, the remedy acts only on the surface, while the interior of the mass continues its destructive progress to a fatal termination. This is equally true of the extensions of the deposit upward into the nares, or downward into the glottis, the latter being the most inaccessible and therefore the most fatal. Deposits in the vault of the pharynx and extensions into the nares can be attacked not only on the surface but also round the edges, by applications through the nostrils as well as through the mouth, and hence they are more amenable to treatment, although the sequel may be most serious. Extensions of the membrane towards the larynx are much more difficult to treat because less accessible, and the spread of the deposit downward impedes the respiration, adding another distressing and dangerous compli-

cation to the already too fatal disease. In justice then to the remedy, its use should be commenced and energetically pushed upon the very first appearance of the deposit. Used in any other way, or its application delayed, the employment of the peroxide may not be attended with the beneficial results anticipated. In this case the failure must be laid to the tardiness of its employment, and not to the powerlessness or inapplicability of the medicine.

Sometimes specimens of deposits will be met with which, although thin, almost translucent, yet are so dense and highly organized as to resist the action of the peroxide of hydrogen as well as much more powerful solvents. In such cases the physician is forced to rest content with thoroughly disinfecting the membrane and preventing its spread, counting himself lucky indeed if these indications are successfully accomplished.

#### FREQUENCY OF THE APPLICATION.

In view of the rapid reproduction of the bacteria already mentioned, it is evident that the applications should be no longer apart than an hour, but, as under favorable circumstances the propagation might take place in less time, it would be better to apply the peroxide every half hour; in fact, the oftener the better.

#### AS A DISINFECTANT.

Not the least important of the collateral effect of the use of a spray of peroxide of hydrogen, in cases of diphtheria, is the thorough disinfection of the sick chamber consequent upon its employment. When frequently and persistently used by inhalation, even the breath of the invalid will be found to be entirely free from odor, adding to this the fact that it is itself odorless and its use does not substitute one bad smell for another, but absolutely disinfects. If for no other reason, the continual use of the spray of peroxide of hydrogen in the chambers of persons suffering from infectious diseases should be insisted upon by physicians and officers of health

#### TO BE USED WITH GLASS VESSELS.

In view of the powerful reaction of peroxide of hydrogen, it is almost unnecessary to point out to the gentlemen for whom this article is intended, that as far as possible it should be brought in contact only with glass or such other substances as will not react upon it so as to cause its decomposition, and *it should also be kept at a low temperature when not absolutely in use.*

#### DOES NOT STOP DIGESTION.

It might be supposed that an agent so powerful to arrest fermentations, would also interfere with digestion, but experiments conducted in France point to the fact that while it arrests reactions dependent upon bacterial growth by the destruction of these micro-organisms, it does not interfere with the action of chemical ferments such as pepsin.

#### ACTION OF PEROXIDE OF HYDROGEN UPON DEAD OR DECAYING ANIMAL MATTER.

Peroxide of hydrogen acts very energetically upon dead and decaying animal matter, yielding up its oxygen and deodorizing the decaying tissue; likewise does it act rapidly upon all purulent discharges, the disengaged oxygen forming a foaming lather.

The apparent energy of its action is altogether out of proportion to its behavior towards the healthy tissue with which it comes in contact, for while it is boiling and bubbling and foaming upon an ulcerated surface one would be led

to imagine that it was acting as a caustic of great power, whereas in good truth, its presence produces no sensation whatever in the majority of instances.

#### INTERNAL ADMINISTRATIONS.

With a remedy of such variable strength as the one under consideration it is hardly possible to suggest a positive dose which shall be practically useful. It has been my custom to ascertain the strength of each sample used, then to dilute it as much as required, and to acquire the habit of regulating the dose by the flavor. Ten or fifteen drops of a fifteen volume solution properly diluted would be an average dose; this to be diluted with water until it is not so pungent as to be unpleasant.

#### TESTING.

To ascertain the strength of a solution of peroxide of hydrogen a normal solution of permanganate of potash is the best to employ, which, added to the solution under examination until discoloration ceases, will give the titre.

#### METHODS OF APPLICATION.

The peroxide may be brought into contact with the diseased surface by any and every means which the ingenuity of the medical attendant can suggest and his experience approve. To the mouth and throat it may be applied by a brush, probang or swab, soaked with an undiluted commercial solution of 12 or 15 volumes; likewise a spray of a solution of the same strength may be directed upon the part. Finally, a dilution of such a strength as not to be too disagreeable to the taste may be used as a mouth-wash and gargle. The posterior nares may be reached by the bent brush, the spray and the bent syringe through the mouth, and by means of the nasal douche, the syringe, the spray, or the swab through the nostrils.

Any and all ways are applicable to this remedy, depending only upon the predilections of the physician in favor of or against a particular method. Thus, some practitioners are diametrically opposed to the use of the brush or swab, while others rely upon it to a great extent, and some again think that a gargle is useless.

In the case of obstinate, fretful and resisting persons, a steam or other powerful continuous atomizer may be caused to direct a spray continually upon the mouth and nose of the patient, and the air inhaled is thus saturated with the peroxide. This, of course, applies to any case in which for any reason it is deemed inadvisable to disturb the patient. The hydrochloric acid present may be neutralized just before using, for which purpose a few drops of aqua ammonia, in proportion to the acidity of the solution, will suffice. It is not impossible, however, that the hydrated oxide of lime might be used for this purpose, and thus the solvent powers attributed to lime water be utilized in addition to those possessed by the peroxide of hydrogen. The value of this suggestion can only be told after considerable practical experience, but all the investigations heretofore made in this direction point to this as likely to prove a useful combination, and so also with a mixture of alcohol and peroxide of hydrogen, and also of lime water, alcohol, and peroxide of hydrogen. In making the latter compound it is best to have the peroxide very cold; add a little hydrated oxide of lime to neutralize the free acid, allowing a sufficient excess of lime for solution in the water of the peroxide, and, keeping it cold all the while, allow it to stand for twenty-four hours; then decant the clear fluid and add the quantity desired of alcohol, likewise previously cooled. The mixture is then kept cold until used. Lactic acid might, by experiment, be found to be a fit substitute for the hydrochloric acid in the commercial solution, and then the necessity for neutralization would cease

to exist, while the power of dissolving the membrane would still be preserved, the lactic acid being said to possess this property in an eminent degree.

#### APPLICATION ALONE OR IN CONNECTION WITH OTHER REMEDIES.

The true remedy for any disease is of course that one which, unaided by other medicines, can successfully cope with the malady. The nearer a remedial agent approaches this standard the more perfect it is. Attaining it, it becomes a specific; failing to reach this position it may still be a powerful aid to treatment. Extended trial and careful observation can alone determine to which category the medicine under consideration belongs; but it is most important that undoubted cases should as often as possible be treated by it unaided, and the results carefully noted, to the end that the profession may attain to a just appreciation of its value and power. For such purposes cases occurring in very young children are unsuitable, because it is impossible to watch the action of medicine without greatly annoying the patient, and thus perhaps aggravating the disease.

#### SELF-LIMITATION OF DIPHTHERIA.

It seems almost unavoidable that those persons who accept the theory of the bacterial origin of diphtheria should naturally conclude that the disease is self-limiting; the one belief almost flows as a consequence from the other. From a consideration of the method of reproduction and the rapidity of development of the bacteria, it is incontestable that millions of these bodies must hourly lose their power of reproduction, either through a want of suitable surroundings or through the direct action of some destructive agent or modifying circumstances. Were it otherwise, a few hours would suffice to cover the whole body with bacteria. What is true in the beginning of some of the bacteria is ultimately applicable perhaps to all of them, and when the last of them, through want of suitable soil or for some other reason outside medical interference, ceases to reproduce its kind, then is the disease at an end by self-limitation.

Of course the patient may die, and probably would do so, in a case left to itself, before the point of self-limitation would be reached; nevertheless, it is not difficult to understand how any disease of bacterial origin can, nay, it might almost be said must, be self-limiting.

#### SO-CALLED DIPHTHERITIC SORE THROAT.

A term has crept into use, both among the profession and the laity, than which nothing can be more misleading and unscientific, viz., diphtheritic sore throat. What is it? Is it the sore throat of diphtheria? Then call it what it is—diphtheria. Is it aphthous? Then say so. Is it follicular tonsillitis or ulceration? So state it. Is it undetermined? Say so; say so. Yes, let the physician say that the case before him is not then sufficiently marked to enable him to determine accurately. Let him say that an accurate diagnosis at the present stage of the disease is impossible. Doubtless it is useful, prudent, and perhaps profitable, to cast an anchor to windward, and to be able to say when the case is pronounced, "I told you so; I told you the case was diphtheria." Or, if the case is cured without difficulty, it may redound greatly to the credit of the practitioner to have cured so easily a case which the unskilled deceiver, by the similarity of sound, will at once classify as diphtheria. This may be profitable; it may be what is called in some localities cute, or canny, or cunning, or business, but it is nevertheless unprofessional, and unworthy of the dignity, straightforwardness and candor of the true physician. Many, no doubt, have used the term thoughtlessly and without intended wrong or deceit; to such it is only neces-

sary to point out the doubtful propriety of the word to induce them to discontinue its use.

#### THEORIES OF THE ORIGIN OF DIPHTHERIA.

There are two theories of the origin of diphtheria, one of which supposes the morbid element to be a gas, and the other looks upon a microbe as the cause of the disease. To the supporters of each of these theories the peroxide of hydrogen will be equally welcome, for it will change, alter, purify and disinfect the gas of the one, and will, with equal power, destroy the microbes of the other. Thus will it lend itself to both theories, while performing its mission regardless of either.

#### CONSTITUTIONAL REMEDIES.

The discussion of the question of presenting the development of the sequel of diphtheria leads up to that of the value of this class of medicines and the method of application in this disease.

With these therapeutic agents as a class it is not the object of this paper to deal; therefore any general remarks made upon this subject are intended only to apply to peroxide of hydrogen.

It may be safely assumed that the diphtheritic poison acts upon the nerve centres through the medium of the circulation; were it otherwise, and the nerve irritation was conveyed only by nervous impulses from the peripheral nerves to the nerve centres, then would the toxic symptoms manifest themselves during the progress of the disease and would be likely to cease when the local irritant was removed. Local treatment would then be all sufficient, for there certainly should be no progressively increasing symptom after the local irritation has ceased; but the opposite is really the case. For days after the local symptoms have all disappeared the evidences of pathological changes in the nerve centres begin to show themselves, as if the poison circulating in the system had been gradually but surely doing its work, without any external manifestation whatever.

Turning naturally in this extremity to the use of constitutional remedies as an antidote to the poison, it is not unimportant to investigate the avenues by which the medicine may find its way into the system.

The absorption of chemical reagents through the alimentary canal and through the skin has been sufficiently demonstrated not to require comment, gases being absorbed in common with other substances; it is, therefore, legitimate to administer the peroxide of hydrogen internally, or to apply it as a lotion to the skin. There remains, then, one more channel through which the remedy can act upon the circulation, viz., the lungs, which at first sight would seem to present the best means of acting directly upon the blood.

In view of the well-known pathological results produced by the inhalation of dust of various kinds and of gases, it would scarcely be supposed that the power of introducing medicines into the lungs and so into the circulation, by saturating the inspired air with the remedy or suspending the medicine therein, would be called into question. Some results obtained by a recent experimenter would seem to throw a doubt upon the value of the lungs as a channel of medication.

“On the Comparative Inutility of Antiseptic Inhalation as at present practised in Phthisis and other Diseases of the Lungs.”—*Lancet*, May 5th, 1883.

“On Inhalation, more particularly Antiseptic Inhalation, in Diseases of the Lungs.”—*British Medical Journal*, Nov. 3, 1883. By ARTHUR HILL HASSALL, M.D.

The author experimented with the “oral and oro-nasal inhalers,” and with

sprays and vapors, and the conclusions at which he arrives are most unfavorable to medication by inhalation, as he finds that but minute quantities of the medicine reach the lungs when it is administered in this way.

The results of these experiments can in no way apply to peroxide of hydrogen, the active agent in which is a gas, a constituent element of the atmosphere, and which once assuming the gaseous state cannot again be condensed. From these considerations and from the results obtained by Professor Binz, as well as from numerous experiments that have been made on the effects of the inhalation of gases and the vapors of volatile fluids, such as ether, &c., it must be self-evident that the inhalation of peroxide of hydrogen offers every prospect of being a powerful means of producing upon the circulation the beneficial effects of the remedy.

It is not impossible that the active oxygen contained in the peroxide of hydrogen, reaching the blood promptly through the lungs, may reoxidize the red corpuscles already deprived of their oxygen by the micrococci or other microscopic organisms which is said by some observers to attack them in this disease, while at the same time the parasite itself may be destroyed.

#### COMBINATIONS WITH OTHER MEDICINES.

From the preceding remarks it will be seen that there are many local remedies whose action and that of peroxide of hydrogen might usefully supplement each other; such for example as pepsin and papyotin, and if *naphthol* should prove not to be chemically incompatible the many valuable qualities claimed for it, its powerful antiseptic properties, its tastelessness and odorlessness may render it a useful adjunct.

#### CASES.

It was not originally intended to burden this paper with a report of cases in many of which the use of peroxide of hydrogen was only supplementary to the employment of other remedies, or as in others the attack was so mild and yielded so readily to the treatment that its exact nature was not critically diagnosed, but there is one case which fulfils all the requirements of a test case, in that there is indisputable evidence that it was diphtheria outside of the mere assertion of the observer. It was an attack of extraordinary violence, the virulence of the poison was most marked, and the case was treated with the peroxide of hydrogen alone. The patient was a young lady of seventeen years of age, in whom there was a tendency to tonsillar and pharyngeal congestion. The attack of diphtheria was preceded by one of tonsillitis of a mild form. The first symptoms were nasal and the first visible membrane was upon the left tonsil, which was entirely covered within twenty-four hours with a patch of membrane about three-quarters of an inch in diameter. At this time the patient could not breathe through the nose. The application of the peroxide now commenced in earnest, and the assault was made simultaneously from all quarters—the brush, spray, gargle and douche being all called into requisition, so that the parts may be said to have been constantly bathed with the remedy. Within a week, patches of membrane, some of which were not less than two square inches in area were detached from the vault of the pharynx. Every trace of deposit had disappeared, and the case was discharged, and in a day or two she returned to her home in the country. In ten days her family and her attending physician wrote that she was attacked with a partial paralysis, which soon became general and total with severe local pains, and in another week she died, just seventeen days after the disappearance of the diphtheritic deposit. The evidences of the genuineness of this case, in addition to and confirmatory of the diagnosis of the attending physician, are :



1st, the membrane cast off; and 2nd, the succeeding paralysis, the extent of the latter, and its fatal termination demonstrating the violence of the diphtheritic poisoning.

SOME OF THE LESSONS TAUGHT AND QUESTIONS SUGGESTED BY A STUDY OF THE PRECEDING CASE.

Except in violence, there was in the case just narrated nothing remarkable; yet its history, as well as that of hundreds of others, shows that there is something else to be done than to remove the membrane and prevent its reproduction. This latter, as will be seen by the narrative, was successfully accomplished in eight days, and apparently there was nothing more to do; but the destructive process was busily at work at the new centres, as shown by the extent of the paralysis suddenly appearing in ten days, followed by death in the succeeding week.

The most interesting question which here suggests itself is as to the possibility by prophylaxis of preventing this common sequela of diphtheria. Granting that it would be advisable to commence an appropriate treatment early, the very important question to be solved in this connection is the character of medicines to be used. These and other kindred questions naturally arise, but a discussion of them is somewhat foreign to this paper, which was intended only to draw attention to the value of peroxide of hydrogen in the treatment of diphtheria; nevertheless, one question will obtrude itself—What is to be done to anticipate and prevent the occurrence of paralysis as a sequela of diphtheria?

CONCLUSION.

Of course it is not intended that the use of peroxide of hydrogen should exclude that of other remedial agents, both local and constitutional. It may be able to combat the disease alone and unaided. It has done so already and may do so again, but it may be that after its merit has been tried by experience, that test which alone is of any value, it may be proved to be only useful as an adjunct, or it may be considered as useless. Be that as it may, the duty of presenting it to the profession is no less imperative, and hence this paper.

ADDENDUM. MERCURY AND SILVER.

In a disease in which the percentage of failures is so great as is the case in diphtheria, it is legitimate to recur again to a remedy which, although equally as unsuccessful as others of the constitutional class, is yet possessed of such extraordinary properties that even a change in the method of its exhibition might be productive of valuable results, if not in the treatment of the disease itself, perhaps in the prevention of its consequences. Salts of mercury and of silver occupy the highest positions among the antiseptics, and it is not unreasonable to suppose that these two medicines might exercise a beneficial influence, especially when their effects on chronic inflammation of the spinal cord and of the nervous centres are taken into consideration; but to be of any value the action must be prompt, hence the remedy should be introduced through all available channels, choosing more particularly those which will least disturb the digestive functions of the patient. Small doses of a dilute solution of biniodide of mercury (*vide ante*) seem sometimes to be of local benefit, but to rapidly produce its constitutional effects is of vast importance if it is intended to fairly and thoroughly test the power it will exert, not upon diphtheria itself alone, but also upon its sequelæ.

THE METHODS OF ADMINISTRATION

Are—1, buccal; 2, gastric; 3, rectal; 4, hypodermic; 5, cutaneous; 6, inspiratory.

1. *Buccal*.—In this method the agent is rubbed upon the gums and mucous membrane of the mouth, and so employed hastens the production of ptyalism; but in this case it is supposed, and not unreasonably, that the resulting salivation is evidence of a local irritation rather than of a constitutional effect.

2. *Gastric*.—The objections to be urged against the administration of the medicine in this way are the slowness of its action in some individuals, and the danger of deranging the digestive functions. Keeping this in view, it would be well to use this portal in connection with other means of ingress, more especially as a dilute solution of biniiodide of mercury kept flowing as constantly as possible over the throat would lend to its action as an internal medication its no less important quality of a powerful asepsis.

3. *Rectal*.—By introduction into the rectum the constitutional effects of mercury can be considerably hastened. For use in this manner mercurial ointment and the oleate of mercury are perhaps the best preparations.

4. *Hypodermic*.—To this method there is one great drawback, viz., the formation of abscesses at the seat of injection. Many salts of mercury have been suggested for employment in this manner, which is one of the best for producing rapidly the effects desired.

5. *Cutaneous*.—Naturally this method divides itself into two heads, according to the condition or state in which the remedy exists when applied to the skin: (A) When a fluid or semi-solid is laid on the surface; (B) when the medicine in a state of vapor is brought in contact with the skin.

(a) For this purpose mercurial ointment and the oleates of mercury are usually recommended to be rubbed into the skin at short intervals, the axilla, the groins and the inside of the thighs being the localities usually chosen.

(b) For the mercurial bath any of the sublimable combinations of mercury, as for example, cinnabar or vermilion, or calomel, or the crude metal its f may be chosen, certain preparations affecting particular individuals more readily than others, but this difference cannot be foreseen. Of all the means by which the constitutional effects of the medicines can be obtained, this s probably the quickest, the best and the one at the same time which will produce the least constitutional disturbance.

6. *Inspiratory or Pulmonic*.—Intimately connected with the application of a mercurial vapor to the skin is the inhalation of it into the lungs; for this purpose the vapor of metallic mercury is best suited, being least irritating in its effects. Unless with a very perfect apparatus, it is very difficult in giving a mercurial vapor bath to guard against the inhalation of a portion of it; but, in view of the experiments of Dr. Hassell (*vide ante*), it becomes an open question whether any of the medicine finds its way into the lungs or not. From a full consideration of the whole subject, the vapor bath seems to be the most rapid and reliable means of producing the constitutional effects of this medicine, two or three days being generally sufficient to attain that result, and the saturation of the system with the remedy is thorough. If it is desired to still further hasten the action of the drug, any or all of the other methods mentioned may be chosen according to the judgment of the practitioner.

A very high estimate is placed by many practitioners upon muriated tincture of iron as a constitutional antidote to the effects of the diphtheritic poison, especially when administered in frequently-repeated doses. With this treatment it is quite possible to combine the antiseptic action of the salts of mercury by adding to each dose a minute quantity of the mercuric chloride, which it will be remembered is soluble in sixteen parts of water, while the strength required as an antiseptic solution is only one part in several thousands. The minute doses of mercury so presented will easily be absorbed, and may materially assist in producing the gentle alterative effect of the drug, which is one of the results desired.

ARTICLE III.—THE CAUSES AND RESULTS OF PULMONARY HÆMORRHAGE, WITH REMARKS ON TREATMENT. By REGINALD E. THOMPSON, M.D., Cantab., Fellow of the Royal College of Physicians; Senior Assistant Physician and Pathologist to the Hospital for Consumption and Diseases of the Chest, Brompton. With illustrations. London: Smith, Elder & Co. A Critique; by EPHRAIM CUTTER, M.D., New York.

Probably no event in the domestic circle is filled with so much horror as when a death occurs from pulmonary hæmorrhage. I have seen the stoutest minds quail under this event, even though its possibility had been foreshadowed. When it occurs in not fatal cases it is far from being a pleasant occurrence to all concerned. Conventionally it is regarded as a sure sign of consumption, in which the bleeding is not regarded as a result, but as a cause.

This idea is as old as Hippocrates. Laennec did not believe tubercle was produced by blood, but regarded tubercle as the primary stage of consumption. Louis followed Laennec, Fennot followed Hippocrates. English writers have generally followed Laennec. Graves gives cases of pulmonary apoplexy dying without tubercle; he thinks blood may produce a tendency to consumption, but is not a necessary cause of it.

Niemeyer's views are quoted, that bleeding may precede the development of consumption as its cause—leading to chronic inflammation and destruction of the lungs—*i. e.*, that caseous pneumonia would result, but this is not generally adopted in Germany, and we come back to the doctrine of Laennec. In this country, the United States, the latter views also prevail. Dr. Thompson, to solve the question "What is the relation of blood-spitting to consumption," considers: 1. The source of this bleeding. 2. The pathology. 3. Clinicology. Phthisis he defines to be a destructive disease terminating a variety of pulmonal diseases arising in inflammation and irritation—a common result to which the diseases tend to converge, which they may ultimately assume, and in which they lose their initial peculiarities. Tubercle is the nodular form known to Laennec as grey tubercle; though in many cases it results from infection by septic matter from a cavity drawn through the bronchial tubes into the lobules; not that the bronchial tubes are the only carriers of septic matters, but that their agency has been overlooked. After giving a general account of the anatomy of the arrangement and distribution of the lung bloodvessels, he then discourses somewhat on Laennec's position as to the source of the hæmorrhages, but feels forced to conclude that when the rupture of bloodvessels involves a considerable amount of bleeding, the pulmonary vessels are the chief source of the blood.

#### PATHOGENY OF PULMONARY HÆMORRHAGES.

1. Alteration of the circulation of the lungs. 2. Disease of vascular walls. 3. Alteration of the blood. Congestion may be caused by acceleration of the heart's action, nervous action, heat, cold, shock, &c.; inhalation of irritating air or fluids; rupturing a vessel after the strain of congestion. Congestion may occur from feebleness of the heart's action, due to fatty degeneration, or the want of the heart keeping pace in its development with the rest of the body. Debility is thus a cause of hæmorrhage. Mediastinal tumors, carcinoma, gangrene, lymphadenoma, aneurism, pneumonia, also are causes.

The connection of cancer with hæmoptysis has been considered by Welsh. Brown induration caused by mitral imperfection, congestion of bronchial tubes in bronchitis, and emphysema frequently tend to bleeding. Thinks it very doubtful that profuse bleeding can come from the bronchial capillaries alone, and Ruehle agrees with him.

CONDITION AFFECTING THE BRONCHIAL WALLS. EROSION. TUBERCULOUS FORM. SYPHILITIC FORM. AMYLOID FORM. DR. THOMPSON'S THEORY OF PROGRESSIVE LUNG INFECTION.

This is the most common-sense explanation we have met with in medical literature, and the following is a condensed statement of the theory:

"The initial disease may, as I have already intimated, start from a congestive catarrh; that is to say, there is an inflammatory condition in which the blood-vessels and the tissue are involved, the circulation in the upper lobe being more feeble than in other parts of the lung, the function of this lobe being less active, the air cells being of large capacity, and, lastly, the respiration being due to a secondary current, the result of the expansion and compression of the lower part of the lung, stasis speedily results, and the exudation is profuse and liquid; a condition of softening soon follows, which may sometimes be seen in early conditions, in which the whole of the upper lobe becomes so soft and friable as to give way easily under the finger, and forms small cavities which show no thickening in the neighborhood, and discharge from their softened sides a sanious fluid, consisting of débris of tissues, cells, bloodvessels, and blood.

"The cavity continues to form and enlarge by the constant liquefaction and ulceration of its walls, and the secretion continues throughout to be stained with blood. The conditions under which such a coating forms lie at the root of the ætiology of phthisis."

The author does not allude to the softening of the bloodvessels caused by fatty generation of the muscular coats, thus weakening the tubes so that the blood pressure needed for life purposes ruptures them, as seen in the pulmonary and intestinal hæmorrhages of cases of Bright's disease, two fatal instances of which have recently come to the notice of the reviewer.

After discussing the course of phthisis, Dr. T. shows the relations of aneurisms (or "aneurysms," as he spells it) in a clear manner. He says the best mode of detecting them after death is, "the lungs should be both removed, together with the trachea, and the air passages first carefully examined, to see from which side the hæmorrhage has proceeded. Frequently this cannot be told by the condition of the clot, inasmuch as the largest amount of clot is sometimes found in the most active lung. If a large cavity occupies any portion of the lung, it must be carefully searched, as the aneurism is generally found in the primary cavity. Palpation should then be made carefully over the surface of the lung, and any nodular swelling should be cut across. I have thus succeeded in detecting very small aneurisms, which would otherwise have been probably missed. It is necessary to remember that aneurisms are often multiple—as many as four have been found in one lung—a condition recorded in Rassmussen's paper on the subject. If the aneurism is not detected in the cavities, the bronchial tubes must then be carefully examined." Aneurisms no bigger than a mustard seed have been found in a dilated bronchial tube. Thombosis and Embolism are causes which lead to bleeding from the lungs. He regards Thombosis as the result of a contiguous secreting cavity, the resultant secretion soaking into and producing inflammation of the arterial walls. It also has a tendency to occur by a similar process in those cases in which there is considerable feebleness of vitality, in consequence of which circulation is retarded and secretions which ought to be expectorated tend to accumulate by gravitation towards the inferior parts of the lung.

From this view of Thombosis, which make its cause to be extra vascular, the reviewer invites attention to the intra-vascular causes which any one with a good objective can find in the blood of consumptives. These are: (1) Enlarged white corpuscles distended with ento-phytal vegetations. (2) Masses of vinegar yeast. (3) Massed white corpuscles. (4) Skeins and masses of fibrin filament. (5) Sticky and adhesive red corpuscles, and sometimes (6) crystals of

cystine uric acid, oxalate of lime, &c. These plug up the vessels of the lungs, interfere with nutrition by mechanical effects, and by the chemical effects of the acetic acid produced by the vinegar yeast. The process of disintegration is analogous to the breaking up of vegetable tissue by the fungi developing chemical substances and growing in their interstitial substance. Tubercle is a result of an accident, the main characteristic of which is the infiltration or cell growths into the areolar tissue, and the consequent compression and obliteration of the vessels. The primary trouble is the vinegar yeast in the blood.

P. 32, Dr. T. says : "The connection between pulmonary hæmorrhage and tubercle stands on no pathological proof, and it is impossible to examine many tubercular lungs without coming to the conclusion *that tubercle instead of fostering bleeding actually prevents and discourages it.* Both lungs may be stuffed closely with tubercle and no bleeding be detected."

"Tubercle may in its formation compress and stop a portion of a small pulmonary vein (it must be a small one), nipping it and obstructing the current in the capillaries; in this way, the pulmonary vein becoming blocked, it is possible that a slight capillary hæmorrhage might follow, although I have seen no instance of this actual rupture, and the usual result of this blocking would seem to be a simple stasis resulting in streaks of black pigment.

"After some experience in the examination of tubercular and non-tubercular lungs, I must express my opinion that bleeding from the lungs appears to stand in no relation to the amount of tubercle, and is independent of it; but the presence of tubercle in large quantities, whether it be in the scrofulous lungs or in any other form, would suggest to me the probability that the patient had not been subject to any copious attacks of bleeding during the time of the tubercular process.

"Nor does the theory of tubercular ulceration, as causative of bleeding, stand in any other position, inasmuch as the liquefaction results from a necrosis due to absence of blood-supply; hence the contents of a strictly tubercular cavity are not found mixed with blood; and it cannot be conceded that such ulceration, when of a tubercular character, has encountered any bloodvessels which could bleed. Occasionally ulceration of a non-tubercular kind is seen excavating tissue from around a tubercle, but it is non-tubercular, inasmuch as the tubercle may remain like an islet in the middle. From all the evidence I have been able to obtain on this point, tubercle seems to have been very unjustly accredited with hæmorrhage, nor has any argument or evidence been brought forward to show its connection with those copious bleedings which are so often brought under notice."

It is quite evident that no bloodvessel in the lungs will bleed any more than a water pipe will leak unless there is some solution of continuity. There must be a weakening of the walls somewhere that cannot resist the pressure; but if the weak part is soldered up by tubercular masses and infiltration there is no hæmorrhage, even though immense pulmonal cavities are found. He then proceeds to describe the conditions which establish a proclivity to bleeding, noticing especially that peculiar tendency to general bleeding called "hæmophilia," a congenital disease, in which pulmonal hæmorrhage occurs in 15 out of 256 cases. It would seem that this is a hereditary disease, due to structural imperfection of the vascular walls. Alcoholic hæmorrhage, plethora, scurvy, purpura and eruptive fevers are alluded to.

*Inhaled Blood* forms one of the most interesting features in the volume. "Where a profuse bleeding has been the cause of death, blood is found in several localities, even in the lung opposite to that in which the fatal rupture has taken place."

A case is given where an aneurism opened into the left bronchia—man lived one hour, and the whole right lung was gorged with blood by insufflation. Another with aneurism in upper lobe of right lung, and blood was found in the left bronchia. A third case where the source of hæmorrhage was in the upper

lobe left, and the periphery of right lung contained flecks of black blood. Two excellent colored figures are given of the pathological appearances.

The author concludes, justly, we think: "It is evident, then, that the presence of blood in the air passages is no proof that the blood originated from them; it simply points to the fact that the blood landed in them when the powers of life were failing, or by the spasmodic gasps made during the dyspnoea. The same insufflation occurs when the patient recovers. In such cases the blood does not putrify, but clots and passes through the phases of absorption, decoloration, fibrination; the outlying portions of the blood disappear and the central nodules become hard and white, of different sizes, color varying from a light red to an ivory white, mottled with old blood pigment. Plate 11 is a graphic illustration of this text. Those who have studied the morphology of the blood for diagnosis and treatment of disease, and have noted the blue, red, green, brown and yellow pigments and crystalline bodies, are at no loss to account for the pigment matter in the lungs.

Dr. Thompson thinks that pure blood has little, if any, irritating effect on tissue, and if irritation is shown it must be due to some accidental quality of the blood or some poisonous addition to it. He says, p. 52, "I have seen no instance to convince me that the extravasated blood of a tuberculous patient can cause tubercle." He regards the black pigment which is found almost always in the lungs of adults as an indication of blood, though sometimes due to the inhalation of carbon. On the other hand, blood clots may be present without pigment. In chapter V. we have an interesting account of how cavities are formed by these changes set up in and in connection with fibrinous clots in the lungs. These cavities are usually lined with thickened tissue and remains of fibrinous matter, and their position and isolation help to their diagnosis. The heredity of hæmorrhage is given a full chapter. The theory of special fragility of vessels, which was put forth by Niemeyer, our author thinks, has met with most undeserved neglect. The author is right.

Lately a case of so-called consumption came into the hands of the writer. There was cough, pulmonal hæmorrhage, gravel of the lungs and physical chest signs of organic disease. Yet the urine was  $\frac{2}{3}$  albuminous, with casts, and epithelia loaded with fat. The blood did not present the morphology of consumptive blood, but of anæmia.

The gentlemen who saw the case before rested satisfied with the chest examination, and did not examine the urine. Now, here was a case of general fatty infiltration and degeneration in which the bloodvessels of the lungs were weakened and ruptured simply from weakness! Food is the remedy for such structural lesions of fatty degeneration. The physical causes of hæmorrhage, as strain, exertion, lifting, blowing wind instruments, alcohol, heat, are the subjects of chapter VII. They would well have been included in the previous chapter. As to alcoholism, we have supposed that the general fatty degeneration which is found as a result would be a sufficient cause for weakening the bloodvessels, so that they would not bear the increased pressure of the heart's impulse when excited by heat and the different forms of exertion. When the vascular tissues are rotten, they must yield to normal blood pressure. The clinical aspects and symptoms of blood-spitting and the physical signs are treated at length and with force.

He says, "the first stage of hæmorrhage is detected by the presence of fine crepitant râles, due to the insufflation of blood into the alveoli. These râles may continue moist for a considerable period of the time—for weeks, sometimes for two or three months; they gradually lose their liquid character, becoming more viscid and scanty, and at last only a click can be heard after a cough. The blood must then be considered as entering upon the second stage—consolidation due to clotting. The outlying portions lose their blood by absorption, and the central parts become closely packed by constant pressure and interstitial contraction." The physical chest signs are these: Dulness

of percussion note, increased intensity in the transmitted sounds, with heightened pitch, imperfect expansion, and hesitating delivery of breath sounds. These signs are very local. They are detected in from two to four months after the hæmorrhage. Subsequently, considerable retraction of the surface of chest wall, especially with the intercostal spaces, becomes a marked sign. (This chest contraction, we think, is due to emaciation, and also to the partial local paralysis of the parts from inanition, weakness and contraction from atmospheric pressure in inspiratory efforts to breathe.) Finally, the usual signs of softening and excavation are heard during the last stage; the only special characteristic in these cases being the high-pitched sounds, indicative of hard solid tissues in the vicinity.

“The physical signs here enumerated not only belong solely to conditions of hæmorrhage, but they remove to another category those signs, dulness and percussion, imperfect expansion, retraction of lung tissue and chest wall, which have often been taken as signs of incipient phthisis; the ground is thus cut away from under the feet of those who ascribe initial or early hæmorrhage to the presence of tubercle in the lungs. Those who are accustomed to investigate the sign of tubercle, and have the opportunity of verifying the diagnosis after death or establishing the physical signs during life with the post mortem conditions, must be fully aware of the very great difficulty of detecting tubercle, even in large quantities, by the physical signs, still less by any distinct dulness of percussion note.” From a consideration of the physical signs here given, and the order in which they occur, it is difficult to see what interpretation can be given to them other than that which is derived from pathological evidence.

“They are not like those of any ordinary form of phthisis, and they occur, indeed, in exactly a reverse order; for whereas they begin with a fine liquid sound and pass through various stages of diminished moisture and increased viscosity to the signs of a hard nodular solid, occupying the lung in certain localities, the sounds of phthisis are generally supposed to begin from the sounds of hard solid tissue and to pass on to the liquid sounds of breaking down and subsequent excavation.

“Those who have watched cases of initial hæmorrhage must be well aware that the physical signs here given are correct, and the hard nodule of the lung may be detected unaltered for years after the occurrence of the hæmorrhage.”

“To the misinterpretation of the true nature of this hard tissue sound in many cases of hæmorrhage is due, I believe, the generally received opinion that tubercle is the cause of hæmorrhage; when it is once recognized that hæmorrhage causes the solid tissue instead of being caused by it, there will be a considerable alteration of opinion as regards the correlation of tubercle and hæmorrhage.”

“In relation to the frequency of hæmoptysis in phthisis, out of 5,000 cases of the latter 45 per cent. had decided hæmorrhage. Louis had 67 per cent.; Dr. Pollock, 58.4 per cent.; Dr. Cotton, 53 per cent.; Brompton Hospital, 63 per cent. Pollock found in 351 cases of proper hæmoptysis 267 were males. Second stage of phthisis presents most cases of bleeding. Remedies recommended: Gallic acid, mineral acids, turpentine, ergot. We miss the fluid extract of Hamamelis, given by the mouth; of liquor ferri, persulphatis, given by inhalation; of alcohol to the chest, all of which are excellent remedies—but the best remedy is to arrest the development of the disease by killing out the vinegar yeast from the system by judicious feeding.

An admirable summary closes the volume. In the opinion of the writer the author has made out a good case, and deserves a fair hearing. His work is judiciously expressed, and its tone of respect towards others is seen to be that of a man who has thoroughly studied his subject, is willing to be taught, and yet cherishes his own ideas because they are the outcome of long and familiar acquaintance with facts. The book certainly deserves a place in all medical libraries, and reflects great credit on the profession because it is, in my opinion, the best on the subject extant.

## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

THE INOCULABILITY OF CANCER AND PROFESSOR SAPPEY'S THEORY OF ENCEPHALOID. *New Orleans Medical and Surgical Journal.*

Is cancer inoculable? is a question that has always been full of interest to the profession, and it is not surprising that this feeling should have been intensified lately, when so eminent a teacher as Professor T. Gaillard Thomas suddenly allowed the full weight of his authority to kindle into greater activity the fears already entertained of so dreaded a contingency. His subsequent retraction of opinion and the investigations set on foot by Dr. Paul Mundé—which prove the exceeding rarity, if not impossibility, of cancerous inoculation, through sexual congress, at least—have greatly calmed the general alarm and tended to re-establish our former composure on the subject.

Heretofore, all have regarded as carcinomatous “tumors atypically constructed, and whose physiological type or derivatives consist of true epithelium.” This is now the most popular doctrine, and that taught by such leaders as Billroth, Waldeyer, Rudnew, Rindfleisch, Klibs, etc., though of course it is opposed by rival theorists—the connective tissue party, formerly headed by Rokitansky, and at present by the no less formidable Virchow and redoubtable Stricker. M. Sappey differs from all these writers on the pathogenesis of carcimona—encephaloid, at least—in claiming as its prime factor a hitherto unsuspected body, the white corpuscle. According to Sappey, encephaloid is purely local in its incipency, circumscribed to a very limited area of a lymph channel of the organ or tissue in which it begins. Under the influence of some *unknown* cause, the morphological elements (lymph corpuscles, white cells) contained within the lymphatics in the affected part undergo a retrogressive, degenerative, change. This modification is apparently of a fatty character. At first the lymph corpuscles alone furnish sufficient material to the primarily degenerated focus, but afterwards the mass is supplied by white cells from the adjacent capillaries. As soon as a healthy white cell is brought in contact with a degenerated one, it is affected in identically the same manner—it degenerates, loses its irritability, its nutritive and migratory capacity, and finally, is struck with sterility. It thus becomes a fixed constituent of the growing mass, which, like the individual corpuscles, would simply die if it only received a limited supply of cells—an end that is not attained on account of the fresh numbers that are being heaped on the mass from the myriads of cells continually brought to it by the nutrient vessels.

In his paper, which was recently read before the French Academy (*Gazette des Hopitaux*), he reports the results of four observations on the state of blood in this condition. He found that the blood withdrawn from the veins of an encephaloid contained large quantities of characteristically degenerated corpuscles; and in his last case, one of encephaloid involving the tongue and neck, the whole mass of the blood presented the characteristic appearance, microscopically speaking, of general cancerous infection, *i. e.*, fatty degeneration of the leucocytes.

Here, consistently with his views, he says: “In order to explain the constitutional character of the malady, the *cancerous virus* was ima-



gined. Under this name a principle altogether fictitious, inaccessible and undefinable, has been designated. The observations that have just preceded demonstrate that this mythical *virus* is now amply represented by the degenerated white corpuscles which the blood continually carries away from the cancerous focus. Therefore, the cancerous virus is not an abstract *something* intended to connect the local with the general affection—it is in reality a formed element, dispersed throughout the economy and ready to react with contaminating danger upon any similar corpuscle with which it may be brought in contact.” According to Sappey, a single degenerated corpuscle is a miniature cancer in itself, which has the power of transforming a healthy corpuscle, through some unknown catalytic or fermentative quality, into a similarly degenerate body. Carcinoma, at least encephaloid, would thus virtually become inoculable, like syphilis and vaccinia.

Unfortunately for Dr. Sappey, his theory and observations militate against experiment and sound experience. The most eminent histologists (and certainly those cited above are respectable) would be hardly willing to admit Dr. Sappey’s view that the bulk of encephaloid cancer is constituted by a mass of degenerated white corpuscles. It is certainly a fact that the real nature of the cancer cell has not been fully ascertained, as the diversity of opinion abundantly proves; yet, Professor Sappey’s four observations are far from sufficient to demolish or affect the positions held on the subject.

Neither is one ready to admit that the cancer cell which he describes as existing in abundance in the cancerous cachexia (which it causes) is endowed with a fermentative power, so to say, by which it is capable of reducing similar corpuscles to its own condition; it is true that diffuse carcinosis or cancerous metastasis could be easily explained by it, yet if it were true, simple cancer juice ought to be an eminently inoculable fluid, an opinion which the experiments of Dupuytren, Vogel, Billroth, and more lately those of Wile, would certainly contradict. It is true that other experimenters, as Langenbeck, Weber and Folin, claim to have obtained different results, and to have succeeded in reproducing secondary cancerous tumors identical with the neoplasm from which the juices were taken. If the alleged results are correctly reported in the light of other observations, there must have been in the juices used, as suggested by Formad, some cells belonging to tumors from which the liquid contents for injection had been taken (Agnew).

Furthermore, the opinion of pathologists at present is that carcinomatous cells increase by multiplication, endogenous growth, never by accretion or addition, as M. Sappey would teach. The cancer cell, under the light of the most advanced histology, is a living, active and reproductive body, and it is only through this property that it has the power to travel along the lymphatic tract to a neighboring ganglion, which it attacks and infiltrates only through its active *reproductive* powers—but for M. Sappey, it is otherwise—a barren, sterile body, which is solely dependent upon a steady and continuous reinforcement of like individuals from that inexhaustible source, the blood, in order to sustain its attacks and to perform its ravages. In fact, each one of these cells, says M. Sappey, runs through four epochs in the course of its existence; each has a period of invasion, a period of growth and development, a period of decline, and very probably one of dissolution. The first two epochs are doubtless passed in the blood plasma; the third in the hard portions of the tumor, and the last in the circulating apparatus, or in the substance of the tumor. When softening and ulceration begin, the oldest

cells are first destroyed, and those which sojourn longer in the circulation undergo a destructive reduction until they disappear *in toto*, making it in this way possible for an encephaloid to become (theoretically) curable.

If one were to seek the path of truth through the tortuous maze of conflicting opinions, he would undoubtedly find himself lost; it is a satisfaction that at least one criterion is left for guidance in the teachings of experience, and these, as Mundé's last investigations happily teach, are emphatically opposed to the doctrine of cancerous inoculability.

THE HISTORY OF THE OPERATION OF PARACENTESIS PERICARDII was briefly related from its first suggestion by Riolan in 1649. (*British Med. Jour., Med. Chron.*) Its practical introduction was traced to Dr. Rovers, of Barcelona, who operated successfully in two cases in 1819. In 1841 there was a remarkable series of cases in an outbreak of scurvy in Russia, in which the pericardial effusion was composed mostly of blood. Nine were operated upon and six recovered. In 1854 Trousseau's essay was published upon some cases of his own and of M. Aran, which revived interest in the subject. In 1866, Dr. Clifford Allbutt introduced the operation to this country, and it was performed by Mr. Wheelhouse and Mr. Teale. Rosenstein, in 1871, made a great practical advance in operating by free incision with drainage. A complete list of the recorded cases up to date was given in a tabular form, with the addition of several cases hitherto unpublished, making seventy-nine cases in all. Of these, fifty-six had been in males, for which no reason could be assigned, and they had been uniformly distributed over the early ages of life. Phthisis and pleurisy had been associated with twenty-three cases, rheumatism with eleven, scurvy with nine, general dropsy with five, injury with three; in twelve cases there had been no associated disease. The fluid had been in fifty-eight cases serous, in twelve purulent, in nine bloody. The amount evacuated had been in forty-six cases less, in thirty-three cases more, than a pint. It was not rare to evacuate as much as two or three pints. The largest quantities had been found in the scorbutic cases, and from one of these about ten pints had been evacuated. It had been sometimes observed that great relief was given by the withdrawal of one or two ounces, and that this had been followed by the absorption of the rest of the fluid. Dieulafoy's careful experiments had led to the selection of a place in the fifth left space, about an inch from the sternum, as the safest point for puncture. The following conclusions were drawn: 1. Paracentesis pericardii is not only justifiable, but an operation which may be safely undertaken with ordinary precaution, for only one case is recorded in which the operation was in itself fatal, and with this exception all the patients were greatly relieved by the removal even of small amounts of fluid, and many recovered completely who would probably have died had the operation not been performed. 2. The most suitable place for puncture is, in ordinary cases, in the fifth left intercostal space, one inch from the edge of the sternum, but if the pleura be adherent, the puncture may be made safely much further out, and even in the sixth space. 3. The instrument employed should be a trocar and canula, with or without aspiration. 4. The operation may be performed with advantage, not only in the pericardial effusion of rheumatic or primary origin, but also in those which occur in the later stages of general dropsy, if it should appear that the fluid in the pericardium is adding to the difficulties under which the heart is placed. 5. Purulent pericarditis is best

treated on general principles, like empyema. 6. The pericardial sac may be safely opened and drained. 7. This treatment, moreover, appears to be the only one which offers the slightest hope of recovery. 8. The results do not seem to be as unfavorable as those of empyema, for the walls of the cavity are better able to contract rapidly, and thus permit its complete obliteration.

THE PEDICLE IN OVARIOTOMY (*Journal of the American Medical Association*).—Only a few years ago the operation of ovariectomy by abdominal section was considered one of the most difficult and hazardous of the capital operations. Except in the hands of a few experienced operators the mortality was so great that many were reluctant to admit the operation to the field of practical and legitimate surgery. Now, however, ovariectomy has been so greatly simplified and improved that it is one of the most satisfactory in results of all the more important surgical procedures. While the great change which has been wrought in the status and application of this operation is in great part due to those improvements which have so extended the field of abdominal surgery generally, much is attributable to the improved method of treating the pedicle. It is on this feature of the operation—the treatment of the pedicle—that such diversity of opinion and practice has been current, and to which we will direct attention.

When McDowell performed the first ovariectomy in 1809, he secured the pedicle by a ligature, and drew the ends through the lower part of the abdominal incision, leaving them outside in closing the wound. When Dr. Nathan Smith operated in 1821, the vessels of the pedicle were ligatured, the ligatures severed close to the knots, the pedicle returned to the abdominal cavity, and the wound closed completely. At a more recent date the *écraseur*, the actual cautery and galvano-cautery were used for dividing the pedicle; and the intra-peritoneal method was followed until Mr. Hutchinson, of London, introduced the clamp. By means of this instrument the pedicle was brought out between the lips of the abdominal incision and became extra-peritoneal. This method was at once adopted by Wells, of England, and Atlee in America, and has been the popular and most generally accepted method. While Clay, of Manchester, and several well-known German operators adhered to the intra-peritoneal method, the clamp became famous in consequence of the brilliant results of Wells, Atlee and others. In the meantime torsion and Miner's method of enucleation were applied in the treatment of the pedicle, the latter being applicable only to special cases. With the advances steadily made in the various details of the operation by the able workers to whom it was entrusted, the mortality was reduced year by year. Among the noteworthy improvements should be mentioned the influence of the Listerian method of treating wounds upon the success of the operation. The greatest interest, however, continued to centre upon the management of the pedicle. It was urged by Mr. Spencer Wells that the pedicle when ligatured and dropped into the abdominal cavity would slough off, thereby leading to a fatal result. In his work on "Ovarian Tumors" he gave conspicuous place to a fatal case in which an examination revealed the distal portion of the stump attached to a coil of intestine and lying in a pool of pus. The intra-peritoneal method had an able advocate in Dr. Tyler Smith, in England, and a brilliant exponent in Dr. Keith, of Scotland. In America the clamp was adopted very generally. In 1868, Spiegelberg and Waldeyer, of Breslau, made experimental investigations upon the changes which

occur in the stump of the pedicle after its ligation and return to the peritoneal cavity.

By these experiments it was shown that the distal end of the stump does not die, but its vitality is maintained through its connecting band underneath the ligature until the sulcus made by the ligature is bridged over with lymph, and vascular connection permanently established. In 1872, Dr. Bantock, of London, exhibited to the Obstetrical Society the stump of an ovarian tumor from a patient who died from cancer one year after double ovariectomy had been performed upon her. On examination the hempen ligature was found to have been almost completely absorbed, the knot only remaining as a hard body about the size of a hemp seed and covered. In a paper recently read before the American Surgical Association by Dr. J. Ewing Mears and Morris Longstreth, of Philadelphia, the results of extensive experiments upon the lower animals relative to the intra-peritoneal treatment of the pedicle were given. These experiments cover the essential points observed by Spiegelberg and Waldeyer, and demonstrate some important facts bearing upon the choice of material for ligature. This subject is at the present time under investigation in the hands of Drs. Mears and Longstreth, and additional observations will be reported.

After Dr. Keith, the intra-peritoneal has doubtless been advanced in popularity most by Mr. Lawson Tait, of Birmingham, who has won the highest distinction by his skill in this department of surgery. Adopting almost exclusively the intra-peritoneal method of the ligature cut short, his results are shown in a published table of 101 consecutive cases of ovariectomy with three deaths. Mr. Wells, we believe, still adheres to the clamp, but in America the intra-peritoneal method has been very generally adopted, and the improved results show this to be one of the greatest advances in abdominal surgery. By the clamp the pedicle is drawn out of the wound and exposed to suppurating inflammation. It has been shown that pus is conducted along the pedicle into the abdomen, and thereby begets suppurative peritonitis. It seems that the prediction made some years since by our distinguished countryman, Dr. T. Addis Emmet, that the intra-peritoneal method with the ligature is destined to be the method of the future, is almost verified.

WATER SUPPLY ; IMPURE WATER ; WATER ANALYSIS ; FILTRATION ; WASTE OF WATER. Abstract of Lectures Delivered by JOHN S. BILLINGS, Surgeon, U.S.A., in Hopkins Hall, Johns Hopkins University. (*Maryland Med. Jour.*)

ONE of the most important factors affecting the health of a city is its water supply ; first, because upon its quantity, etc., depends the cleanliness of the city and its inhabitants ; second, because it may be the medium for the conveyance of the causes of disease. Rain water is not a pure water, being contaminated by the organic matter of the atmosphere, and usually by the roof-washings. There are arrangements, however, by which the first washings of the roof may be turned into the gutter, and the after comparatively-clean water into the cistern, and such measures should be employed much more generally than they are, even if the water be used only for washing purposes (see National Board of Health Report, 1880, page 442). The Roman aqueducts, the Chicago tunnel under Lake Michigan, and the works in progress in Baltimore, New York and Liverpool, were cited as instances of engineering feats originating in the desire to secure a satisfactory water supply for cities.

This object is not secured without much inconvenience and even loss to the inhabitants living along the streams furnishing the supply, and many lawsuits are the result. It is practically impossible to preserve wells unpolluted in a large city, and in most cases it cannot be done in a small one. The supposed sulphur springs discovered a few years ago in Baltimore and Washington were cited to show that the contamination is by no means only occasional and of small moment. One of the most interesting questions to sanitarians at the present time is the pollution of water supply. Polluted water does not always cause disease; moderately dilute sewage has been drunk with impunity. On the other hand, typhoid fever, diarrhoea, etc., have been so often caused thus that it is prudent to consider all such water as dangerous. The danger is not in proportion to the pollution nor to the effects upon the special senses. Nor is chemical analysis to be relied on, since the chemist cannot tell with certainty the amount of organic matter present, nor how much is vegetable and how much animal, nor whether it is living or dead. Yet there is much reason to believe that the danger of a water depends to a great extent upon the living organisms or germs. Dead organic matter is not in itself dangerous; on the contrary, it is a food, but the organisms are found wherever dead organic matter is, feeding on it and breaking it up into simpler forms. The chemist is unable to determine the presence of living forms, and also the specific character of these. The biologist must determine these by culture and inoculation. The conveyance of typhoid fever by milk from cans which have been washed with water contaminated with typhoid excreta has been verified many times. The lecturer then described a quantitative investigation which Koch had applied to the water of Berlin, alleged to be polluted by drainage from the sewerage farms. A cubic centimetre of pure distilled water is estimated to contain from four to six such organisms derived from the air. The same quantity in water taken direct from a sewer contains thirty-eight millions, and so on. Such an examination shows nothing as to the specific properties of the organisms.

The lecturer then spoke of water analysis, the main object of which is generally to determine the amount and character of the organic matter present. The ammonia method for ascertaining the quantity of nitrogen is most commonly used; by this can be distinguished that which is in the form of ammonia, and which can be driven off by simple distillation after the water has been made alkaline, from that which is in more permanent combination, requiring the action of chemicals, as caustic soda and permanganate of potash, to decompose the organic matters containing it, when by further distillation it is driven off as additional ammonia, known as "albuminoid ammonia," not because it necessarily or even probably arises from dissolved albumen, but because albumen will give it off when thus treated. The conclusions of Professors Mallet and Ripley Nichols were quoted, to the effect that chemical examination alone is impotent to determine the value of a water. In view of this, the chemist should have personal knowledge of the source and surroundings of a water, and not merely have a sample sent him for examination.

Upon the question of pollution of streams, the lecturer said that the legal remedy here was in the common law principle that every person or corporation owning land on a stream in which the tide does not ebb and flow, owns also the right to use the water flowing in front of his property, and also has the right to have the water come to him in its natural state, both as to quality and quantity. A "prescriptive"

right to pollute a stream may be acquired by twenty years' usage, hence the importance of guarding against it in time. In order to make out a case for injunction or damages it is necessary that the evidence should be satisfactory that a right has been invaded, a nuisance created. The lecturer quoted authorities who maintained—upon the basis of experimental analysis—that natural causes are sufficient to purify a flowing stream when polluted, a satisfactory degree of purity being apparently obtained after a flow of a few miles. Water pollution is of less interest to Baltimore than most cities, because the sources of our supply are unusually free from danger of contamination. Yet a small degree of danger exists, and the authorities must see that it does not increase, and no prescriptive right to discharge refuse into the Gunpowder and its tributaries be established, for no matter how clear the law, there will be difficulties in removing a factory or drain when once established. The trouble is that the city has no jurisdiction over the greater part of the territory from which its supply is obtained. An appeal for protection to the last Legislature, however, failed, the interests of forty persons outweighing those of 400,000. Offensiveness may originate from other causes than sewage pollution, as from algæ, decaying sponge, etc. The musty, fishy, etc., tastes are due to these causes.

Can a suspicious water-supply, employed from necessity, be improved so as to remove the danger? The lecturer thought the possibility of this proven, especially by the experience of Antwerp, where the turbid, polluted water of the Nethe "is rendered colorless, bright, palatable, and fit for dietetic and domestic uses," by filtration through spongy iron. Professor Frankland is of the opinion that specific living germs are destroyed by this process. Koch's method, above referred to, may be used in testing the efficacy of such filters.

Quantity of water supply is a question of great practical importance at this time in most American cities. With it that of waste water has become a prominent topic of conversation among engineers. The popular idea is that the escape of water cleanses the soil pipes; trickling has no such effect, which is attained only by sudden flushing. The great cause of water waste is leaky fittings. The means adopted by some large English cities to prevent this waste, *i. e.*, the stamping and testing of house-fittings, and requiring these to be of certain approved patterns, were described. The lecturer presumed that over half the fittings in this city would fail to pass these tests.

One of the first cases in which impure ice was shown to have caused disease was at Rye Beach, in 1875, when three hundred guests of a hotel had fever and diarrhœa. These symptoms were traced to the ice which had been obtained from a foul pond, and when melted was found to contain decaying organic matter. Other cases have since occurred, and the danger is real, although it has been much exaggerated. In freezing, water purifies itself to a very considerable extent, at all events as regards dead organic matter. To what extent it frees itself from living organisms is unknown, but some of the ordinary bacteria of putrefaction preserve their vitality enclosed in ice, and, by analogy, specific germs may do the same. Dry cold, even below zero, does not destroy the life of bacteria, the anthrax or vaccine species for example. Yellow fever is almost the only disease which we are fairly certain has its powers destroyed permanently by frost.

When the supply of water is limited, it may be supplemented by impure water for cleansing purposes, as is done in Paris.

UTERINE HÆMOSTATICS. By J. BRAXTON HICKS, M.D., F.R.S., Guy's Hospital, London (*British Medical Journal*).

As a small contribution to the practical portion of the subject of uterine hæmostatics, I venture to make a few remarks on the mechanical kinds, which we know by the name of plugs or tents. In doing so I must be understood to refer only to those cases where the cavity of the uterus is not sufficiently large to contain blood in quantity, the loss of which from the circulation is likely to produce anything of serious detriment.

If we go back to former practice and to text-books, we find it recommended that in case of threatened abortion with much hæmorrhage, a vaginal plug should be used. The vaginal plugs recommended are the tampon, cotton or wool, silk or cambric handkerchief, rags or sponges passed in till the vagina is filled up. An india-rubber ball also has been suggested, covered with felt or such like material. Now, even with the best management, there is much of distress to the patient in the use of the vaginal plug; and, with regard to its hæmostatic effect, very much uncertainty, and generally partial failure; and in the hands of the unskillful and careless there is positively no restraint of bleeding worth the mention. If at any time any good results be produced, it is rather by the reflex irritation that it causes, whereby the uterus expels its contents. It is not so very rare an occurrence that one finds, on removal of the plug, the ovum on the uppermost part of it. But, besides its palpable inefficiency, a vaginal plug, being of a porous texture, absorbs a large quantity of blood and thus conceals it from our sight; it also favors decomposition, and this, as is well known, occurs within a few hours; and thus we have a new element of danger.

Again, in many cases, when called to such a case, we have no speculum at hand; and although we may extemporize one out of card-board, book-covers, or such like material, yet, before we have thoroughly and firmly filled the vagina we must have given the patient considerable pain and distress, besides having occasion to put such pressure on the urethra as may necessitate subsequent catheterism. For these reasons, namely, the imperfection of action, pain in introduction, and danger if left in long—in other words, its general crudity—it seems to me that as a general rule the vaginal plug should, in the cases I have supposed, be discarded. And as a substitute I would urge the employment of the cervical plug as being more precise in action, as well as being capable, if we use a dilating kind, of expanding the canal for the purpose of exploration, or for the expulsion or removal of its contents.

If, then, in any case of uterine hæmorrhage where we have the conditions above alluded to, we desire, besides immediately checking the bleeding, to dilate, we can use the compressed sponge-tent; the best form of which I have found to be those made after Sir James Simpson's plan, by Duncan, Flockhart & Co., Edinburgh. These can be introduced by a long pair of forceps, and retained *in situ* by placing a piece of sponge, with tape attached, in the upper vagina. Of course, even these materials retain some secretions, etc., and tend to facilitate decomposition; but their removal and cleansing can be effected much more readily than the vaginal plug, because it requires but a small portion. The sea-tangle tent, by reason of its slipperiness, is unreliable as a plug in hæmorrhage. If we desire, however, only to plug the cervix, we can very easily extemporize a plug from materials to be found in every house. For instance, take a stick (say a flower stick) about a foot long,

and taper it at one end to about the size of a uterine sound, or larger ; wind round this end, for about three inches down, strips of cambric rag, lint or sponge, to the required thickness, judging from the size of the os. Strips of sponge can be readily obtained from the cup-shaped sponges of compact texture, and they can be tied on by thread, layer after layer, till the requisite conical form is obtained. The strips of the other material can be laid on similarly. After the covered end has been well greased it is passed into the canal and the stick retained *in situ*, after the manner in which we tie in a catheter ; an elastic tape, if obtainable, is to be preferred.

A catheter or bougie, at the end of a long injection-tube, can be treated in the same way. If we require great precision of application, then it is best that the hand should hold the external end till the hæmorrhage has ceased. If the catheter and stilet be used, then I have found it convenient to bend the external portion backward, between the buttocks, tying the tape around the ring of the stilet—the ends of the tape being carried, as usual, to back and front of the waist-band.

These more homely adaptations I have recommended, rather than the especially made kinds, because they are often wanted at times when we cannot send home for a showy sort. In any case, a cervical plug, expanding or not, is more precise, less crude and painful in application, than the vaginal, and, in my experience, nearly always successful. In all cases of abortion, where a plug is necessary, I would lay it down as a rule that the expanding tent should be employed. In case of flexion with abortion (and it is this complication which so frequently increases the hæmorrhage) it will be found that the covered stick or stemmed plug, above described, is very useful ; for, if the fundus be elevated during its introduction, the uterine cavity is straightened and evacuation of the contents thereby facilitated.

EMMENAGOGUE POWERS OF MANGANESE (*Medical World*).—Less than a year ago, Dr. Ringer, of London, called the attention of the profession to the emmenagogue powers of manganese. Since then it has been extensively tested in America, and the results are uniformly gratifying. When the amenorrhœa depends on a weak condition of the sexual apparatus, the action of this drug is specially favorable. But as amenorrhœa and menorrhagia often depend upon the same condition, this remedy is here efficacious.

A weak organ may be unable to start a flow, and when started it may be unable to stop the flow. Then in amenorrhœa or menorrhagia, depending on weak sexual organs, this is a useful, if not the most useful remedy. General anæmia may or may not exist.

Dr. Martin, of Chicago, reports in the *Medical Record* a number of cases treated by this remedy. He gives the permanganate of potassa as the most convenient form to administer manganese. It is given in doses of two grains or more, and may be given once or several times a day. It is best given after meals, and dissolved in considerable water. It is difficult to prepare in pill form, as any organic substance decomposes it. When perfectly dry it may be put into capsules. In cases of young girls, where there is trouble in getting menstruation established and regular ; in mothers, about weaning their babes, who have the same trouble ; in the legions, both married and single, whose menstruation is stopped by taking cold, in all these cases the profession has long needed something prompt and reliable.

Also, in stout, plethoric women who often have feeble sexual organs



and suffer from either no flow at all or too much flow. But more especially is this remedy valuable in weak, anæmic women and girls, reduced either by overwork or disease. Dr. Martin reports the case of a girl who had not menstruated for four months in consequence of phthisis. She menstruated in one week after permanganate of potassium had been added to her treatment.

This remedy, in addition to being a general tonic, stimulates the uterus and its appendages.

As this is still a new remedy for these troubles we would be glad to publish further experience with it.

THE SECRETION OF BILE (*N. Y. Medical Record*).—Baldi has made an experimental investigation of this subject (*Lo Sperimentale*), which again shows the singular irregularity of the flow of the bile. This alone suffices to distinguish it from the other digestive secretions. The observations of the author, so far, tend to prove that the liver, as the secretory organ of the bile, must be considered as an emunctory for the waste materials of the different tissues destined to be expelled. This accords with the researches of Schiff, who has shown that the bile poured into the intestine is in part reabsorbed and taken back to the liver by the portal vein, to be again excreted and returned to the intestine. Some observers doubt if the biliary matters absorbed into the blood pass again in the secretion of the liver, thinking it possible that they may serve only to excite increased secretion without passing out again by the liver. Having repeated Schiff's experiment of injecting bile into the stomach and directly into the blood, the author shows that the liver, rather than the kidneys, expels the biliary matters from the blood. When ox bile was injected into the stomach, the secretion of bile increased enormously, the bile having taken the green color of the ox bile. The same happened when the bile was injected into the blood direct, while the urine showed no trace of biliary acids by Pettenkofer's test. All the bile was expelled by the liver, and not a trace by the kidneys. Admitting that the biliary acids (the only true specific elements of bile) are the exclusive products of the hepatic cells—and this remains to be directly proved—the fact is nevertheless true that the biliary secretion is distinguished in a characteristic manner from the other digestive fluids, by the irregularity of its flow and by its independence of any decided exciting influence of food or medicine. It presents instead many points of contact with the urinary secretion; both depend essentially on the collective waste of the organism, the liver having an excretory faculty for the biliary materials, just as the kidneys have for the urinary materials.

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AMERICAN MEDICAL DIPLOMAS ABROAD.—Australia seems to be peculiarly favored just now with bogus diplomas from the United States. The *Australian Medical Journal*, of June 15, tells us that the Medical Board of Victoria has recently refused to register a Rev. R. V. Danne, who presented a diploma from the Medico-Chirurgical College of Philadelphia, which Mr. Danne said had only been in existence two years or thereabouts. A translation of the diploma is given, as made by one of the best classical scholars in the colony, which is interesting reading. Among other things, it declares the holder to have passed all his examinations in jovial fashion (in more jucundo). The translator expresses his appreciation of it by saying: "It is hideously bad Latin, and there are grammatical blunders in it for which a little school-boy would be soundly whipped."

## ORIGINAL TRANSLATIONS.

THE NERVOUS SYMPTOMS OF SACCHARINE DIABETES. By H. BARTH, Hospital Physician. Translated from the "*Union Médicale*" by H. McS. GAMBLE, M.D., Moorefield, West Virginia.

Within the past few years the clinical history of the disease of Willis has been singularly enlarged; thanks to the precision of modern observation, thanks to the perfected methods of research, numerous facts that the older authors allowed to pass without noticing them, or that they noted incidentally without comprehending them, have been collected, classified, interpreted, and have come to assume in the symptomatic picture a place, the importance of which each day is increasing.

This remark applies especially to the phenomena of a nervous order, in the proportion that one enters more deeply into the clinical study of diabetes, one is led to recognize the fact that in all its phases, from its commencement to its termination, this curious disease may determine, in the different functions of the nervous system, a series of perturbations, some slight, others grave, all of which seem to be under the immediate dependence of the dyscrasia produced by the presence of sugar in excess, which offer in fact, as well from a pathogenic as from a clinical point of view, a remarkable analogy with the symptoms resulting from the different intoxications, such as alcoholism, saturnism or uræmia.

The very interesting study of the nervous manifestations of diabetes is today so far advanced that it is possible to draw a picture of them as a whole. Such is the task which has fallen upon Dr. Dreyfus at the last competition for the fellowship, and it is from his remarkable thesis that we shall extract the greater part of the following details.

What distinguishes at the outset the diabetic nervous phenomena, what prevents confounding them with those of the diseases proper of the nervous system, is their variable and irregular character. According to the remarks of Trousseau, they are odd, protoform, and, above all, unexpected; they follow no course, no regular gradation. Without any known cause they are seen to appear, disappear, amend or become aggravated; sometimes they show themselves even at the beginning of the disease, of which they constitute the first disclosing signs; at other times they appear only at later periods; they may be even entirely wanting; they also rather deserve the name of accidents than of symptoms.

For want of a natural order which does not exist in the cases, we are obliged to have recourse to an artificial classification and to describe successively the troubles of motility, those of sensibility and of the organs of sense, trophic troubles, and finally the cerebral phenomena. Let us rapidly run over these different points, and let us then try to see how, in the actual state of science, we can explain to ourselves the general pathogeny of the nervous symptoms of diabetes.

1. The disorders of *motility* have been indicated, since Rollo, by all authors. There is at first a marked diminution of the strength, a general lassitude, often accompanied by pains in the loins, simulating lumbago. The patients complain, according to the vulgar expression, of having cotton in the legs (of growing weak), they become apathetic and dread the least exercise. However, upon examining matters more closely, no true paralysis is observed; the muscular vigor is preserved, or scarcely diminished, but it quickly becomes exhausted, and an effort, however short it may be, leaves after it a prolonged fatigue. This lassitude, this muscular torpor, which often appears at the beginning of the

disease, is accentuated in proportion to the progress made by the latter ; we see it diminish with the glycosuria under the influence of a rational treatment.

By the side of this phenomenon of daily observation it is not rare to observe irritable paralysis, and these latter present characters altogether peculiar, well brought out by Lasègue. They may show themselves at all periods, and very frequently accompany the initial phases ; they are transient and ordinarily partial. If sometimes they are seen to affect the hemiplegic form (Lasègue), or even paraplegic (Maréchal de Calvi), they are more frequently limited, it may be to one member, it may be to a group of muscles. They affect the most singular localities ; it is thus that they are seen to occupy the tongue, the motor muscles of the globe of the eye, or even those of the larynx ; sometimes they are associated in the most paradoxical manner and the most unexpected. We have said that they were incomplete and rather limited to a simple paresis. Their duration is very irregular, often they retrocede in a few days, but to reappear some time afterwards with the same characters.

Divers other motor troubles have been observed ; thus the inco-ordination of movement with the gait recalling that of ataxics (Maréchal) ; thus cramps (Pavy, Bouchardet) which are remarkable for their frequency and their tenacity, and which, supervening during the night, sometimes prevent all sleep ; thus also the convulsions, which may be partial or general and affect the character of epileptiform attacks.

2. The disorders of sensibility are not less common, and also present a great variety. Often it is an anæsthesia, which may be limited to one member, but which more frequently marks out some irregular places without any relation to the distribution of the cutaneous nerves ; it may occupy all the points of the body. Rarely the anæsthesia is complete ; ordinarily there is only analgesia or tactile anæsthesia ; quite often it is associated with a neuralgia.

Cutaneous hyperæsthesia is very frequent ; everybody knows that itching, that insupportable pruritus which appears due to the elimination of the sugar by the cutaneous glands, and which is sometimes the revealing phenomenon of a diabetes ignored up to that time. Twitchings have also been noted, painful prickings like the stinging of ants in one side of the body (Trousseau) ; in some patients a marked sensibility is observed upon pressure in the region of the nucha, or along the vertebral column ; finally, certain diabetics experience an excessive susceptibility to external cold, probably due to the abatement of the interstitial combustions.

The diabetic neuralgias have often been noted. According to Worms and Berger (de Breslau), they are frequently bilateral and symmetrical, remarkable, moreover, for the intensity and the tenacity of the pains, which resist all therapeutic measures ; the treatment of the diabetes alone, by acting upon their cause, is able to modify them. These neuralgias have no seat of election ; we see them occupy the sciatic nerves, the intercostals, the dental nerves ; according to Rosenstein, they possess the characteristic of being often limited to the periphery. They do not spare the visceral nerves ; neuralgia of the pneumogastric is far from being rare, according to Prof. Peter, and gastralgia is noticed by all authors. It is doubtless to a neuralgia of the cardiac nerves that we must attribute the cases of angina pectoris in diabetics, to which Vergely and Huehard have recently called attention.

After the troubles of the general sensibility, let us notice those which concern the organs of sense. The loss of sexual feeling and impotence show themselves at an early hour in diabetics, and, unlike individuals attacked by disease of the spinal cord, notably ataxies, they seem to resign themselves to it without trouble, with the apathy and the indifference which is habitual to them (Legrand du Saulle).

Ocular troubles are among the most frequent and significant of the manifesta-

tions of diabetes ; it is before all and above all diabetic cataract, to the notice of which we confine ourselves ; then glycogenic retinitis, recognisable by the ophthalmoscope by multiple retinal hæmorrhages and by whitish spots, called fatty, which resemble those of albuminuric retinitis ; more rarely progressive atrophy of the papilla is observed. Amblyopia without lesions of the fundus of the eye is quite frequent ; it is ordinarily binocular, and characterized by the sensation of a mist, with or without lacunæ of the visual field ; sometimes by dyschromatopsia ; hemiopia has also been observed (de Graefe). We have already noticed the ocular paralyses ; they are incomplete and transitory like those of the other muscular systems ; they sometimes strike the muscle of accommodation, whence premature presbyopia, sometimes the iris, whence mydriasis and pupillary inequality, sometimes one of the motor muscles of the eye, and more especially the external rectus, whence convergent strabismus.

The other organs of sense are more rarely involved ; however, deafness is sometimes produced (Dreissig-Griesinger) or buzzing in the ears (Senator), and, according to Lecorché and Marz, anosmia is not very rare.

We mention only in passing the varied and incongruous trophic troubles which are observed in diabetes ; urticaria (Peter), partial sweatings (Buiclé), symmetrical gangrene of the extremities (Reynaud), retraction of the palmar aponeurosis (Dreyfus-Brisac), and we reach the central phenomena which present much more importance.

3. Near the commencement of his disease, the diabetic becomes passive, indifferent to everything surrounding him ; his intellectual apathy renders work impossible, his memory fails ; often he is a prey to a perpetual somnolency.

In opposition to this picture, in some cases a condition exactly the reverse of it is observed ; the patient is irascible and agitated, his nights are passed in sleeplessness ; sometimes even he is attacked with a nocturnal delirium, which sometimes resembles the delirium of heart disease, and sometimes is characterized by the obsession of a fixed idea ; these mental troubles may proceed even to madness.

But this is not all. The diabetic patient may present different symptoms which, to the observer not forewarned, recall the symptoms of a cerebral tumor. For instance, an intense and tenacious headache, which is most frequently located at the back of the head and neck (Maréchal de Calvi) ; an aphasia sometimes complete, but of short duration (Bouchard) ; attacks of *cirigo* or of syncope, these latter almost always *en rapport* with sudden crises of diarrhœa (Laségue) ; even epileptiform or apoplectiform attacks as sudden as unexpected.

It remains for us to speak of *diabetic coma*, a grave complication in all, of which Kussmaul first gave the exact description, and which holds to-day such an important place in the history of diabetes. The clinical characters of this redoubtable complication are well understood. No patient is safe from it, for sometimes it appears all at once and constitutes the first sign indicative of the diabetes ; sometimes it arises only in the last stage, cachectic ; sometimes, finally, it shows itself brusquely in the course of a diabetes recognized and under treatment. The inconstant prodromes are limited to a few phenomena of cerebral excitation, a certain incoherent loquacity, or perhaps a pain at the epigastrium, a feeling of great distress, a vague malaise ; sometimes it is noticed that the breath exhales a peculiar odor, recalling that of chloroform. Soon the symptoms break forth, rapid and overwhelming. At times it is the gastro-intestinal disorders which open the scene ; attacks of colic and vomiting (Schmitz), abdominal pains simulating a peritonitis (Jaccoud) ; chloroform diarrhœa (Buhl and Tappeiner) ; or there is at the outset a complete inexplicable prostration. But the capital phenomenon is a violent dyspnœa, with a peculiar rhythm ; the inspiration is profound and energetic, as if the patient had need of air ; the expiration is equally energetic ; there are no intermissions as in uræmia ; on the

contrary, the respiratory movements are rapid and regular; however, there is no orthopnoea; the patient, extended upon his bed, is incapable of making any movement; his pulse is small and rapid; his skin dry, rugose; his tongue dark and like parchment; the extremities are cold; the urine, when it is not suppressed, exhales the same odor as the breath. The coma is not long in becoming complete, sensibility and voluntary motility are abolished, the respiration becomes stertorous, the central temperature rapidly falls, and the patient succumbs at the end of twelve or fourteen hours without any convulsive phenomenon.

4. It is seen that the nervous phenomena in diabetic patients are as varied as important, and often occupy a large place in the ensemble of the symptoms. If their clinical history is to-day very well understood, is it so with their pathogeny? No, unfortunately; and the extensive efforts which have been made in this direction have only resulted in theories often plausible but none of which can explain the whole of the facts.

As we have said in commencing, the essentially disorderly character of the accidents we were studying, their variability, their inconstancy, do not permit us for a single moment to attribute them to a primitive alteration of the nervous centres, and the illy-defined lesions elsewhere, which have been met with in the autopsies, are evidently effects, rather than causes. On the contrary, everything approximates the diabetic nervous troubles to those observed in the different toxæmias, and everything demonstrates that they ought to be referred to a veritable intoxication. But what is the nature of the toxic agent, and what is its mode of action? Here is where the difficulties begin. The greater part of researches have been directed exclusively to the diabetic coma, the most important of the phenomena in question, and the easiest to study experimentally. Griesenger, Busch and Wunderlich, struck with a certain clinical analogy, with the hypothermy, the gastro-intestinal phenomena, and the collapse, have expressed the idea that diabetic coma was due simply to uræmia. This opinion cannot be sustained, for, without speaking of the numerous cases in which the symptoms break out in diabetics whose kidneys perform their functions well, and whose urine is not albuminous, it is certain that, in the character of the dyspnoea, in the absence of convulsions, diabetic coma differs profoundly from uræmic coma.

Kussmaul has defended a more plausible theory, and one which counts still to-day many adherents; that of acetonæmia.

He thought that the sugar of the blood was decomposed by spontaneous, acetic fermentation, and thus gave rise to acetone, an ethereal substance analogous to chloroform, and endowed like it with stupefying properties. It is certain that acetone exists in the blood of comatose, diabetic patients, as the chloroformic odor exhaled by their breath and by their urine demonstrates. But the experiments of Kussmaul himself, and of several other observers, have demonstrated that the toxic accidents produced by the injection of acetone into the blood offer only a vague resemblance to diabetic coma; besides, it is necessary, in order to produce these accidents, to employ very strong doses, and it does not appear probable that this substance, eminently volatile, which is eliminated without obstacle by the lungs, can accumulate in the blood in notable quantity. If acetonæmia can account for certain cerebral troubles, it does not explain the terrible phenomena of dyspnoea, and of collapse that characterize diabetic coma.

From this latter point of view, the hypothesis recently given out by Sanders and Hamilton is certainly seductive. Starting from this well-established fact, that one often finds a notable quantity of emulsified fat in the blood of diabetic patients, these authors have attributed the dyspnoea and the coma to capillary fatty embolisms, analogous to those observed in compound fractures. But the reality of these embolisms is as yet only imperfectly demonstrated, and it is

difficult to understand under what influence they could arise in so sudden a manner. Supposing the fact correct, this interpretation certainly does not suit every case.

More comprehensive and more conformable to the results of observation is the theory of Prof. Bouchard, to whom the study of the pathological physiology of diabetes has suggested so many ingenious ideas; without the intervention of any new morbid agent he simply attributes the nervous disorders of diabetes to the dehydration of the tissues, the natural result of the hyperglycæmia. The sugar, which circulates with the blood, and which impregnates all the organs, is incessantly borrowing from the tissues the water necessary for its diffusion. If this water is not supplied in abundance by drinking, there results a relative dryness and a state of suffering of the anatomical elements, notably of the nervous elements. Then let come an aqueous spoliation which quickly augments the density of the blood, the dehydration will exceed the limits compatible with the support of organic life, and accidents promptly fatal will be the consequence of this rupture of the nutritive equilibrium. Thus would be explained the frequent appearance of diabetic coma after profuse sweats, diarrhœas and all causes capable of producing the brusque augmentation of the density of the blood; thus would be justified the assimilation which Buhl has attempted to establish between the nervous phenomena of diabetes and those of cholera.

This hypothesis presents a strong probability, and it is possible that the future may confirm it; but does it embrace the whole truth, and is its simplicity in accord with the extreme complexity of the facts? It would be premature to decide. In default of a definitive solution, we are at least in possession of certain data which permit us to-day to get a tolerably clear glimpse of the ensemble of pathological conditions of the nervous complications of diabetes.

Glycæmia, the surcharge of the blood and of the tissues with sugar, is evidently the primitive essential fact; by its irritant action this sugar determines derangements of the capillary circulation; by its avidity for water it hinders the phenomena of osmosis and injures the nutrition of the anatomical elements; whence various functional disorders; whence for the nervous system, impressionable amidst all, a state of malaise which betrays itself in a thousand ways. If, under these conditions, a fortuitous circumstance comes to modify brusquely the internal equilibrium already impaired, to increase the density of the blood by the extraction of water, to stop the elimination of sugar, or to provoke its decomposition, immediately the changes of nutrition will cease, the nervous system struck with stupor will refuse all service, and life, of which all the sources are drained at the same time, will soon become extinct.

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## SELECTED ABSTRACTS.

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RINGWORM: ITS PATHOLOGY AND TREATMENT. By R. M. SIMON, B.A., M.B., Cantab.

The disease is undoubtedly contagious, but its contagion varies in strength at different epochs of life, and the ringworm of childhood is not the ringworm of maturity. The disease is essentially the same, but very different in its situation; in childhood the head, in mature life the body or rarely the hairy parts of the face are liable to be effected, and the cause in every case is the trycophyton consurares.

The best way to find the fungus is to extract one of the broken short and thick hairs, and after maceration for an hour or two place it under the microscope.

On the body, where ringworm especially affects the face, neck or chest, it commences with small red circular spots, and is often associated with the formation of minute vesicles. These circular spots gradually increase at their circumferences, while the centre becomes more or less normal, the subsidence of the original vesicles being followed by desquamation. The advancing edge is raised, and red, and is an important element in diagnosis, for the patch might, but for this elevation, be taken to be one of eczema. Should there be any difficulty about the diagnosis, the point may be settled by scraping some of the epithelium from the inner border of the advancing ring, and the finding of the characteristic mycelium. I may at once discuss the treatment of this condition, as it is quite distinct from that of the hair, and by far more easy; any parasiticide will be effectual, but I have been in the habit of using a preparation of equal parts of sulphurous acid and glycerine with good effects; a free use of soft soap and water is important, and it will be advisable in every case to examine the hair to see if there be a coincident patch there also. If fortunate enough to catch a case at its commencement, we find a small ring of minute vesicles on a red base; the fluid which is between the rete mucosum and the epidermis is quickly absorbed, and there results a branny desquamation which spreads rapidly, and we soon have round patches of a grayish color, covered with scales, and but sparsely with stumps of hairs. There is a great amount of gray débris surrounding the base of the hairs, which are thick and stubby, with a fracture like the end of a broom, and full of fungus; they come out very easily, more often breaking in epilation, but without pain, and this is important. If you find a child objecting very decidedly to epilation you may be moderately sure that there is no ringworm in the hairs you are handling.

For practical purposes ringworm of the head may be divided (1) into recent cases; (2) cases of disseminated disease, where the head is practically covered; (3) cases in which there remain one or two old patches which are most intractable. The cardinal feature which underlies all indication for treatment is the tendency of the fungus to penetrate deeply into the hair follicles. Bearing this in mind, it will easily be seen how useless is the application of medicamenta merely to the surface. Over-much washing must be avoided, for if the scalp be soddened by water, ointments cannot sink deeply into the follicles.

For recent patches I use glacial acetic acid, painting it on to the affected parts, but I do not think it better than blistering fluid. I never shave the head in these cases, preferring to clip the hair all over where the disease is widely distributed, and for half an inch round the patches, where there are but few. One cannot so easily distinguish the diseased hair from the sound, where they first emerge above the surface, and I have repeatedly seen cases where a child has been most unnecessarily tortured by the extraction of healthy hair, which would have been avoided had the hair been only closely clipped. Sometimes this treatment repeated once or twice will effectually cure the disease, but as a rule more treatment is necessary. It will be necessary, with the aid of a good lens, to every day extract a few of the diseased hairs, and to rub an ointment on the patches themselves, whilst it will be wise to employ for the rest of the hair a combination of carbolic acid with glycerine or oil. Mix carbolic acid with either of these in the proportion of 1 to 12,

and let it be applied every morning. For the patches themselves you may use carbolic acid and glycerine in equal parts if the patient be about ten years old, and the skin not tender; but for infants and younger children it will be necessary to use a larger quantity of glycerine. Glycerine penetrates well into the follicles, and after its use you will find the hairs getting loose and very easy to extract. This preparation must be used with a sponge and thoroughly rubbed on the face, which it morning, care being taken that it does not run down the face, which it very easily irritates. The best remedy consists of ungu. sulphuris as a base, and varying proportions of ungu. hydrarg. nitratis, citrine ointment, and carbolic acid. For a child of ten you may use equal parts of all three; for a child of two, 1 part of carbolic acid and ungu. hydrarg. nit. to 5 of ungu. sulphuris, and increase the proportion of the two more active agents in a direct ratio with the age of the child.

For the treatment of chronic cases of ringworm we have two modes and must be guided mainly by the extent of surface affected; where this is large we have a valuable remedy in the oleate of mercury. This should be mixed with acetic ether, in the proportion of 1 part of the latter to 7 of the oleate; the oleate being of the strength of 5 or 10 per cent. according to the age of the child. In such a case you may commence by cutting the hair to about a quarter of an inch from the head, and washing well with the spiritus saponis alkalini of Hebra. This is prepared by mixing 2 parts of soft soap with 1 of rectified spirits of wine; allow the mixture to stand for 24 hours, then filter and use the filtrate as a lotion. Dip a sponge first into hot water and then into this lotion, and rub on the head until a free lather results. Leave the lather on for a quarter of an hour, and wash off again with water. Rub the oleate thoroughly well into the patches night after night, and whenever the epithelium reaccumulates have recourse to the spir. sapon. alkan.

In a majority of cases this treatment will be successful, but occasionally, while the greater part of the surface recovers itself, there will be left one or two isolated patches which resist all treatment. For these there is no help for it but the production of artificial kerion by the use of croton oil, which must always be applied by a medical man and closely watched. Alder Smith directs that it should be painted on a small patch every day until the part becomes swollen, tender, puffy and boggy; during the intervals of the use of the oil, poultices should be kept constantly applied. After a varying number of days of this treatment, the patch will be found covered with a thick yellow crust, which is easily removed and leaves a red tender surface, and causes a purulent discharge from the follicles, which either carries with it the diseased hairs, or leaves them loose in the follicles and renders their extraction a matter of ease. Take care not to cause a slough of the skin, as thereby the hair follicles are destroyed, and a patch of permanent baldness remains; also do not attack too large a portion of the surface at the same time.

Never declare a case well so long as there are visible minute black dots, which are the orifices of diseased follicles; these must be treated by inserting a needle with a drop of croton oil far down into the follicle, as in the production of kerion this will be followed by local swelling and pustulation and the extrusion of the diseased hair. There generally remains after an attack of ringworm a large amount of scurf on the head, and this may be effectually treated by the spir. sap. alkal.—*Birm. Med. Review.*



KIDNEY DISEASE IN PREGNANCY AND LABOR. By FLAISCHLEN (*Zeitsch. f. Geb. u. Gyn.*, VIII., 2).

Concerning the literature of the subject the views of several authors are given. Georgi is of opinion that a nephritis contracted during the pregnancy may develop into a chronic inflammation of the kidneys, but that artificial abortion, as a rule, is not indicated. Hoffmeier considers the prognosis of the nephritis of pregnancy as very bad. One-third of the cases which came under his observation died. Chronic inflammation is very likely to ensue. He is in favor of artificial abortion. Moricks considers that engorgement is an etiological factor of the greatest importance in most cases of this disease. He thinks with Hofmeier that structural changes of so severe a character take place in the kidneys that restitution to its integral condition is impossible. Leyden thinks that the structural changes in the kidneys are not due to a venous engorgement, but to a fatty degeneration of the epithelium, brought about, however, by disturbances in the circulation. He thinks that the proof has not yet been given that chronic inflammation will follow. Ingersley finds it very difficult to decide, in a given case of nephritis during pregnancy, whether this has been caused by the pregnancy, or pre-existed in a latent condition. He thinks that a complete return to health, after this disease has become established, is doubtful. Hiller believes it is proven that a compression of one or both ureters is a possible cause of the disease, and in severe cases is unconditionally in favor of the securing of artificial abortion as a means of saving life. Much light is still needed in order to make the pathology of this subject satisfactory. A reply to two questions would be of the greatest interest: first, what are the distinguishing characteristics, clinically and anatomically, of the nephritis of pregnancy; second, in a given case of this disease, is a differential diagnosis possible between the nephritis of pregnancy on the one hand (*i. e.*, caused by pregnancy), and acute and chronic inflammation (*per se*) of the kidneys on the other, and can this disease which is under consideration develop into chronic nephritis? The investigations of the author included the examination of the urine of one thousand pregnant women, at different periods during pregnancy, and also after it was concluded. In only ten of these cases was pronounced albuminuria found and studied subsequently, and only four of these could be reckoned as severe cases. In the six mild cases the edema which existed when they were received into the hospital disappeared after a few days' of rest, showing the independence of this system upon the nephritis of pregnancy. In the four severe cases there existed abundance of albumen in the urine, scanty discharge of urine, extensive fatty degeneration of the epithelium of the kidneys, and few or no red blood-cells—conditions which are quite characteristic of anæmia of the kidneys. In the milder cases the disease seemed to be limited to the epithelium of the glomeruli, and the albuminuria was apparently conditioned upon this. The absence of cylindrical and kidney epithelium in the sediment of the urine shows that the epithelium of the canaliculi was intact. The author thinks that edema of moderate extent might be expected from pressure of the enlarged uterus upon the veins which come from the lower extremities, but if the edema were universal that it is due to insufficient heart action, caused possibly by hydremia in consequence of long-continued loss of albumen. In making a differential diagnosis between the nephritis of pregnancy, and chronic interstitial nephritis, particular attention should be paid to the quantity of urine discharged and to its specific gravity.

These factors are of greater importance than the sediment which is precipitated. If, with considerable albumen, we also find a low specific gravity, and a rather abundant discharge, the suspicion is warranted that the case is one of chronic nephritis, for in cases of nephritis of pregnancy in which albumen is abundant, the specific gravity is always high, and the quantity discharged is small. In differentiating from chronic parenchymatous nephritis, the difficulty is still greater. In this as well as in the disease just mentioned we must rely largely upon the condition of the heart for our opinion. In either of these chronic diseases we shall find hypertrophy of the heart, and a characteristic hard pulse. The author has not yet seen any evidence, either in literature or in personal experience, that the nephritis of pregnancy develops into chronic nephritis. He admits, however, that the question is undecided. With reference to the second part of his subject, namely, kidney diseases brought about by parturition, two series of cases are cited. From these cases it appears that a kidney affection may be produced by parturition, which is characterized clinically by hyaline and granular casts, and by the fatty degeneration of the epithelial elements of the kidney. The author thinks that this form is connected etiologically with the form which results from pregnancy. The author sums up his investigations as follows: 1. In one series of cases reflex anæmia of the kidneys can be explained only by reference to the gravid uterus. This constitutes the nephritis of pregnancy. The first result of this is seen, anatomically, in changes in the epithelium of the glomeruli; clinically, in the existence of albumen. Degenerative changes in the epithelium of the canaliculi follow, with increased discharge of albumen, together with casts and epithelial débris. These changes come most commonly towards the end of pregnancy. In cases in which chronic inflammation pre-exists, the disturbances in the circulation come earlier, and with greater intensity, as the inflammation is more or less advanced. When pregnancy ends, the disturbances in the kidney ends also. The proof is wanting that there is a development into chronic nephritis, and, *a priori*, this is quite improbable. The danger in the disease lies in the retention of urine, in consequence of the fatty degeneration process in the canaliculi, and eclampsia consequent upon this, which will endanger the life of both mother and child. In order to avoid this, artificial abortion is indicated in severe cases. 2. In a second series of cases the disturbances in the circulation of the kidney first manifested themselves as reflex phenomena, for which parturition was responsible. They occurred usually in cases in which labor was protracted. In a certain number of cases vasomotor disturbances were probably causative. If kidney disease existed previous to parturition, it is likely to be augmented by the latter, but a nephritis caused by parturition never eventuates in chronic nephritis.

A. F. C.

JAUNDICE IN NEW-BORN INFANTS. By HOFMEIER (*Zeitsch. f. Geb. u. Gyn.*, VIII., 2).

The paper opens with a discussion concerning the various theories as to the hepatogenous or hematogenous origin of jaundice, each of which has a measure of truth, but fails to correspond entirely with the author's views. The chief fault lay in a one-sided expression of views in regard to individual phenomena and local processes, or in too great confidence in unproven theories. An extensive series of investigations was made

by the author upon icteric children during the first ten days of life, and the following facts were brought out: The disease is associated with a decided loss of weight, which comes on during the first few days of life, and with an extraordinary increase, during the first nine days of life, in the discharge of urea, in the formation of uric acid, and uric acid infarcts, and in the phenomena which accompany the latter, as seen in the excretion of albumen. A constant phenomenon, which varies in intensity with the intensity of the disease, is the excretion of a yellow coloring material with the urine. The less appropriate the nourishment of the child, as to quantity and quality, the greater is the loss of albumen. The proof of this lies in the continued loss of weight contemporaneously with an increased discharge of albuminous elements. This consumption of albumen concerns the albumen which is circulating in the blood-plasma, and thus affects the red blood corpuscles, together with the respiration which comes into action after the child is born. The longer these processes last and the more intense they are, the greater the consumption of red blood corpuscles, which process is probably accompanied by an equally active production of new corpuscles. The proof of the latter lies in the complete analogy of phenomena in the direct destruction of red blood corpuscles in the circulation with the observed facts in case of fever, and in the results upon the red blood corpuscles of chloroform narcosis. While this destruction of red corpuscles is excessive only in a physiological sense, the bile coloring matter represents one of the most essential physiological products of the coloring matter of the blood. In addition to this, by the beginning of the function of the intestine as an organ of digestion, the secretion of bile is stimulated to a marked degree, so that, in consequence of the conditions which have been described, an increased secretion of bile, rich in pigment, occurs, corresponding to the good or bad condition of the child's nutrition. With all these facts in view, there are also certain anatomical conditions which favor the passage of bile into the blood, and the final phenomenon is the icteric discoloration of the skin. When the child is poorly developed and poorly fed, the icterus is likely to continue for some time. The question as to whether the icterus of the newly-born is a physiological or a pathological phenomenon, admits of two answers. It is pathological in so far as the passage into the blood of bile, a substance which is foreign to it, is always pathological. It is physiological in so far as the causes which produce this result are founded upon the physiological relations which subsist after birth. Very few children are so favorably circumstanced immediately after birth that they can contend successfully against the extraordinary demands made upon their organism for a few days, solely by means of the nourishment which they get.

A. F. C.

PHOSPHATE OF CODEIN.—The *Wiener Med. Blatter*, for August 16th, contains the mention of a new drug, the phosphate of codein (*Med. Record*), which has been prepared by Merck, of Darmstadt, under the direction of Prof. Hegar, of Freiburg. It is intended for hypodermic injection, for which neither the sulphate nor the chlorate are suitable, being nearly insoluble in water. The new salt is soluble in four parts of water, and contains seventy per cent. of codein. It crystallizes in four-sided columns, and is similar to morphia in action, with the advantage of having less tendency to excite toxic symptoms. It is particularly suitable for sensitive patients.

## LECTURES.

A LECTURE ON PERMANENT ASTHMA, delivered at the Hotel Dieu, by Prof. GERMAIN, Sec. Translated from the *Union Médicale*, by H. McS. GAMBLE, M.D., Moorefield, W. Va.

SUMMARY. DEFINITION OF PERMANENT ASTHMA. RELATIONS WITH CHRONIC EMPHYSEMA. TREATMENT.

GENTLEMEN : To the majority of physicians asthma is an intermittent disease, with paroxysmal exacerbations occurring especially at night, and disappearing after a few hours, without leaving in general, in their wake, any other disturbance of the health than a certain degree of fatigue and of general enervation. Intermittance is for these physicians the characteristic fact, and this idea dominates their minds to such a degree that they refuse to accept the notion of an asthma with continued dyspnoea. It is admitted that the attacks of asthma, by repetition, end by determining an habitual dyspnoea which persists between the attacks. This is what Von Helmont called *mixed asthma*. But if these phenomena of continual oppression are ever so little accentuated, you see the idea of asthma effaced. The physician called to formulate a diagnosis gives himself no further trouble about knowing whether the patient has had any intermittent attacks anteriorly ; he sees nothing beyond the lesion he has under his eyes, and he says : Pulmonary emphysema with chronic bronchitis. Still more strongly is he fixed in this conclusion if, going back to the antecedents, he learns that the patient has never had any nocturnal attacks. But, gentlemen, I wish to establish before you to-day the fact that not only may asthma become continuous after having been intermittent, but that it may from the start, and without having passed through the phase of paroxysmal attacks at greater or less intervals, constitute a disease with permanent dyspnoea, and that the asthmatic, however catarrhal and however emphysematous he be, is always an asthmatic.

It must be said that it is Laennec who has destroyed the idea of asthma to the advantage of emphysema. Before him, asthma as a disease was perfectly established and admitted, not only from a nosological point of view, but in practice, and this tradition has persisted to the present day among those who have the conception of asthma that prevailed before Laennec. The latter dismembered the disease and divided its elements into dry and pituitous catarrhs, pulmonary emphysema, neurosis of the lungs ; and the position that he accords to asthma is so restricted, that he asks himself whether, outside of dry catarrh and emphysema, there really exists a nervous disease which deserves this name.

Dating from the time of Laennec, physicians have been preoccupied, so to speak, only with pulmonary emphysema. Chomel, Louis, Grisolles, regard asthma as a rarity, and Louis makes emphysema the cause itself of asthma. But, however important a part one may wish to assign to anatomical lesions, it is impossible to admit such theories.

It is very evident that emphysema of the lungs may be developed under the influence of very different causes, and that it is not necessarily accompanied by symptoms of asthma ; it enters then into the composition of asthma only by the same title as dyspnoea ; it is only a lesion as the latter is only a symptom, subordinated alike to the essence itself of the disease asthma.

I do not wish to go over the pathogeny of asthma here again ; I refer you upon this subject to a work that I published fifteen years ago in the *Dictionnaire de Médecine et de Chirurgie Pratiques*. I will simply remind you that for me three elements enter into the constitution of asthma : a special nervous dyspnoea,

a bronchial exudation, and an emphysematous condition of the lungs. However short an attack of asthma may be, these three elements are always to be found. Asthmatic dyspnoea is constantly accompanied by a transitory catarrh and a transient emphysema. To see in asthma only the nervous element, is to neglect two sides out of three of the question; it is to refuse to comprehend the ultimate evolution of the disease and the different aspects it may put on. Let the catarrh become exaggerated in an unusual manner, and you will have a new form of the disease under the name of catarrhal asthma, and in certain cases, rare it is true, in which the bronchial flux becomes extraordinarily abundant, pituitous asthma. If, on the contrary, the transitory emphysema is accentuated, developed and established in a definitive manner, you will have asthma predominantly emphysematous; it is the form which peculiarly answers to what I call permanent asthma.

The majority of physicians, as I have told you, do not reason thus, and consider, in these cases, the emphysema as the primary cause of all the symptoms. An English physician, Waters, author of a remarkable work on pulmonary emphysema, perpetuates this view, erroneous in my opinion, in the division which he proposes of the varieties of emphysema of the lungs. For him there exists two grand divisions of emphysema.

1. An emphysema secondary, lobular, partial, mechanical, which appears in the course of all bronchial diseases, resting stationary and silent so long as the evolution of these diseases is itself arrested, increasing on the contrary, and accentuating itself at each relapse of the bronchial affection—relapse which it invites, in a manner, and the development of which it favors. Observe, gentlemen, that I by no means deny the existence of these secondary emphysemas; but they have nothing to do with asthma.

2. In regard to this first category, Waters admits another variety of emphysema, which he calls primitive, protopathic, constitutional emphysema. Here the oppression, the shortness of breath and the physical signs of emphysema are established and developed outside of all disease; it is only later on that bronchitis appears. The most striking symptom of the disease is a *permanent shortness of breath*, which is exaggerated under different influences—damp weather, intercurrent bronchitis, emotion, painful digestive work. Dr. Waters says this emphysema is a special disease, absolutely distinct from the emphysema secondary to broncho-pulmonary affections. And he sees the proof of it not only in the spontaneous development, but even in the heredity of this form. Gentlemen, I accept without hesitation the division of Waters; his description is perfectly correct. We differ upon only one point—it is that, to me, his protopathic, constitutional form is by no means primitive; it is simply one of the elements of the unrecognized asthmatic triad, or rather it is asthma itself—predominantly emphysematous, permanent asthma. You may have seen in our wards a young patient who, to Waters, would represent to a certainty the type of his constitutional emphysema, and whom I present to you as the clearest example of permanent asthma.

Case 1. Permanent asthma, dating from infancy, with exacerbations; generalized pulmonary emphysema.—A., aged 18 years, admitted the 21st March, ward Saint-Christophe, No. 23, in the service of Prof. G. Sée. This young man enters the hospital a prey to an intense dyspnoea; the face is anxious, inspiration painful, expiration noisy; he rests seated upon the bed, supported upon his hands, making an effort with all his thoracic muscles to cause the air to enter his chest. From time to time cough intermittent, painful, followed by a muco-purulent expectoration, somewhat scanty. The chest is arched; subclavicular fossa very marked. Sonorousness exaggerated throughout the whole extent of the thorax, before and behind. Upon auscultation, obscurity of the vesicular murmur; expiration prolonged, accompanied by wheezing and dry sibi-

lant rales which fill the whole chest. The pulse and the pulsations of the heart are regular; beneath the sternum is heard a soft murmur, systolic, very distinct, of tricuspid insufficiency. There is no malleolar oedema. The urine is clear and contains no albumen.

This patient relates that he is born of robust parents who are living still, and are neither subjects of catarrh nor asthmatics. As to himself, he does not remember ever having had any serious illness, neither whooping cough nor measles. But since his infancy, as far back as his memory goes, he has always had shortness of breath, not being able to play and run with his companions without getting out of breath. This continued oppression would become exaggerated at intervals, especially during winter. Two years ago he is said to have had, on several occasions, attacks of suffocation, which occurred in the night and lasted several hours. Since the month of December last the dyspnoea has been aggravated, accompanied by fits of coughing, with mucous excretions, and on several occasions quite an abundant epistaxis. Treatment.—2 grammes of iodide of potassium a day.

March 30th.—The dyspnoea is much less; the patient can rest lying upon the back. Inspiration is more easy; the sibilant sounds less numerous. The tricuspid murmur has disappeared.

April 5th.—The patient breathes more easily; expiration is still a little sibilant; oppression upon the least fatigue. The thoracic areolar vesicular murmur persists. The patient leaves at his own request.

To sum up all, to the physicians who will see only the pulmonary lesion, this young man is an emphysematous subject, and, to Waters, he is affected with the protopathic form of emphysema, since this emphysema appears to have been preceded by neither bronchitis nor any other malady capable of explaining its development. To my mind he is an asthmatic. There is one fact which I have, I believe, sufficiently established in an article in the *Dictionnaire de Médecine*, it is that asthma is a disease much more frequent in childhood than is generally supposed. Attacks of asthma may occur about the age of 18 months or a year, assuming a formidable intensity and a peculiar aspect by reason of the narrowness itself of the bronchial tubes at this age. I have no doubt that our patient has had paroxysms of this kind in early infancy, and that the emphysema that he actually presents is only the consequence of these repeated paroxysms. The proof that this is only one of the elements of the pathogenic triad of asthma is that the two other elements, nervous and catarrhal, reappear from time to time in this patient to constitute one of those dyspnoeic exacerbations which are nothing else than a prolonged asthmatic paroxysm. You have witnessed one of these exacerbations; if it has lasted three weeks and more, instead of disappearing in a few hours like the paroxysms of classic asthma, it is doubtless to the predominance assumed by the emphysematous element that this persistence must in great part be attributed; but you have seen that the effects of iodide of potassium have not been less happy upon the march of the disease.

Permanent asthma may then appear in infancy; but it is not always so. You will also see it commence in adult life. The two following histories are the proof of it:

Case 2. Permanent asthma, emphysema and bronchial catarrh.—G., thirty-seven years of age, gilder, admitted March 21. Health habitually good up to 1867. At this time, being in Newfoundland, in the capacity of a sailor, he had a serious attack of bronchitis, which kept him six weeks in the hospital. Since that time he has always suffered from shortness of breath, and the respiration has been oppressed without any paroxysms of suffocation properly so called. He coughed easily, and has had bronchitis every winter. He has never expectorated blood. For some years past the oppression has been more marked. Within

the last two years he has entered the Charité twice for bronchitis, with paroxysms of suffocation.

Two months ago the cough became spasmodic and painful, followed by a viscid and mucous expectoration. Paroxysms frequent. He cannot ascend the stairs without being seized with fits of suffocation. At night he often has fits of suffocation, with nocturnal sweats. No œdema of the legs. The appetite is preserved, and the general health good.

Present condition.—He is a man of vigorous enough appearance. Respiration impeded and noisy, being heard at some distance. Cough spasmodic and frequent. Expectoration muco-salivary. Thorax dilated; resonance exaggerated under the clavicles, in the axillæ, and in the middle of both lungs behind, growing a little weaker toward the bases. Rales sonorous and loud, filling the chest in front and rear, accompanied by loud sibilant rales, and a prolonged, hissing expiration. At the base of each lung abundant sub-crepitant rales. The sounds of the heart are dull. No murmur, urine clear, no albumen, no œdema of the lower extremities, appetite preserved, no fever. Iodide of potassium two grammes.

The patient leaves at the expiration of three weeks. The paroxysms of suffocation no longer exist. The patient can ascend the stairs without difficulty but he still has the shortness of breath. The sonorous and sub-crepitant rales have disappeared. There remains only the prolonged and hissing expiration, and a few disseminated sibilant rales. Percussion gives always the same exaggerated resonance.

Case 3. Permanent asthina, repeated attacks of bronchitis, pulmonary emphysema.—M., thirty-seven years old, admitted May 16. Menses regular, and general health usually good. Five children. Pregnant eight months. For five years past, without any known cause, she has had a shortness of breath. She pants as soon as she walks a little fast, cannot ascend a stairway without stopping at each landing. Frequent attacks of bronchitis. She has never had any paroxysms of suffocation at night. She has had a cold for six days, hoarseness, painful cough, without expectoration. Respiration has become very much oppressed and sibilant.

Present condition.—A vigorous woman, facies congested and dyspnoëic. Voice hoarse, almost extinct, respiration panting with sibilant expiration. Cough spasmodic, without expectoration. Percussion gives behind as well as before a full, loud, sonorous sound. Coarse and sibilant rales generalized, mingled with mucous rales at the base of the right lung. The heart sounds are weakened; no blowing sound. The urine is loaded; no albumen. The tongue is foul; no appetite. Seidlitz water; two grammes of iodide of potassium.

The twenty-first, the patient demands permission to leave. She breathes much more easily. The hoarseness has disappeared. The respiratory murmur is very feeble everywhere, and covered in places by a few sibilant sounds, but the numerous sonorous rales which filled the chest are no longer heard upon auscultation.

I could quote to you many other analogous observations, for patients of this kind are numerous; but the evolution as well as the aspect of the disease is always the same. These patients are asthmatics, in whom, at the first paroxysm of asthma, the catarrhal element and the emphysematous element assume an abnormal importance. From that time, each new paroxysm tends to reproduce itself with the characters of the first crisis, that is to say, under the form of a more or less prolonged sibilant bronchitis. The patients find themselves, little by little, brought, so to speak, to a state of permanent asthma, aggravated by exacerbations more or less intense, the dyspnoea proper of asthma coming in some way to be engrafted upon the continued dyspnoea of emphysema.

Treatment.—The distinction which I wish to establish between simple em-

physema and asthma of an emphysematous form is more important than you might suppose at first sight. It is not a question only of a simple satisfaction of pathogenic diagnosis; there is also therein a question of treatment which has its own value. All the catarrhal and all the emphysematous patients are sent without distinction to the watering places. How many derive no profit from them! It is because, except perhaps Mont Dore and Bourbrule, the waters avail nothing to asthmatics; never, in such cases, will we obtain any good from sulphurous waters.

But the true treatment of this permanent asthma, as well as of the classic asthma, intermittent, is the iodide of potassium; and not, as I never cease to repeat, iodide of potassium in the dose of 25 to 50 centigrammes, extolled, then abandoned, by Trousseau, but in the dose of 2 to 3 grammes per day. Under this dose, prolonged for a certain time, the exacerbations disappear, the dyspnoea continues to moderate and decrease, the cough and catarrh amend. How many of the pretended catarrhs with emphysema, which resisted for months the classic treatment of bronchial catarrh by sulphurous waters, balsamics, opiates, will you see ameliorated in a few days by the employment of iodide of potassium? It is because, under the catarrhal and emphysematous element, the physician had failed to recognize the real disease—permanent asthma. I will add that the crude mixtures, known under the name of Green's elixir, plain or improved, act only by virtue of the iodide, and that the addition of narcotics and of lobelia is absolutely useless. It is at the utmost if during the first few days it is necessary, in order to prevent iodism, to add 5 or 10 centigrammes of opium per day.

CLINICAL LECTURE ON ORGANIC DISEASES OF THE HEART. By  
 PROF. AUSTIN FLINT, M. D., New York. Delivered at Bellevue  
 Hospital, New York.

GENTLEMEN: To-day I propose to give you a kind of practical exercise in diseases of the heart, and, bringing before you a number of cases, none of which I have myself examined, endeavor to call your attention to such points in diagnosis and treatment as may arise in connection with them, and which may be of service to you in your study of this important subject. The first patient being now before us, I will proceed at once to make an examination in reference to his heart, without obtaining any history or asking any questions in reference to his present condition. On looking at the man we notice, in the first place, that he has no embarrassment in breathing, and that there is no cyanosis present. In regard to his heart we note that two movements are visible upon the chest walls, one systolic and the other diastolic. Now let us see whether the heart is enlarged or not. The apex-beat is in the sixth intercostal space, on a vertical line with the nipple, which indicates that while the organ is enlarged, the degree of enlargement is not very great. On auscultation it is found that the first sound of the heart reaches its maximum intensity at this point. The next point is to find out how large a portion of the heart is uncovered with lung tissue. The normal area of cardiac dulness, as you are aware, is of the general shape of a right-angled triangle, and here we find that this area of superficial dulness is at least double the normal size. We have thus made out the undoubted existence of a certain amount of enlargement of the heart. Whether this enlargement is due to hypertrophy or to dilatation is a very simple matter to determine. If there is hypertrophy there will be increased impulse, and if dilatation weakened impulse. It is well to remember, however, that the apex-beat may be feeble while the impulse



above that is quite strong. When this is the case it is due to a change in the shape of the heart, the organ having become more globular in outline. The next point in the differentiation between the two is to find out whether the impulse is of a heaving or sharp character. It is found to be of the latter, which results from dilatation; and we have in this case, therefore, enlargement of the heart with predominant dilatation.

In some cases enlargement of the heart is due to disease of the kidney, in which case the left side of the organ is principally affected, and in others to pulmonary emphysema, where the right side is enlarged. As a general rule, however, this pathological condition is dependent on valvular disease of the heart. There is certainly no emphysema present in this case, and, presuming that there is no kidney trouble either, we will look for evidence of disease of the valves; and as the left side of the heart is far more commonly the seat of such affections than the right, we will make our examination of that first. We may have, as you know, either regurgitation or obstruction present, or both combined, and by means of auscultation we can usually determine what the condition is without difficulty. On applying the stethoscope to the left side of the heart here I get a soft, bellows-like murmur, synchronous with the first sound of the heart, which reaches its maximum intensity at the apex, and which is also transmitted beyond the apex to the left. There is no presystolic murmur noticeable, and we decide, therefore, that there is present in this case a regurgitation from the left ventricle into the left auricle, or mitral regurgitation, as it is called. Auscultation of the aortic valves by placing the stethoscope in the second intercostal space, just to the right of the sternum, shows a negative result. The case, therefore, is a perfectly simple one; the enlargement of the heart depending on mitral insufficiency, which always leads to more or less increase in the size of the right ventricle, as is the case here.

One point of considerable practical interest in such a case as this is to compare the aortic second sound with the pulmonic second sound in order to form some idea of the degree of insufficiency existing. It is known that where there is hypertrophy of the right ventricle the pulmonic second sound is intensified, and in proportion, as a rule, as the aortic second sound is weakened, is the amount of mitral insufficiency present. In the present instance, I may say, there is a condition of affairs which can be tolerated almost indefinitely by the system, and I would warn you, in cardiac affections generally, not to form too hasty a prognosis of impending serious trouble.

Now, in order to make the case more complete, let us ask a few questions of the patient; but before doing so I will venture to predict, with a very considerable degree of confidence, that this man has had acute articular rheumatism at some period of his life. Yes; he says he has had this disease, the first attack fifteen years ago, and the last three years ago. He does not give any history of endocarditis in connection with any of his attacks; but this is a complication which frequently escapes notice altogether. Yet its effects are apt to be of a permanent and serious character, and in this case it has undoubtedly led to the organic disease which is now present. In such a condition of the heart the patient after a time finds that he suffers more or less from shortness of breath in taking exercise which formerly produced no such effect, and that is the chief trouble here. The man says he "gets out of wind," and with this exception he is really quite well. This, then, is a perfectly typical case of simple mitral insufficiency, without mitral obstruction, and without any complicating disease of the aortic valves; typical as

regards, first, the physical signs present; second, the connection of the trouble with acute articular rheumatism; and third, the general symptoms.

Finally, let us inquire what are the therapeutical indications in such a case as this? Too many practitioners under these circumstances resort at once to digitalis. Given a case of disease of the heart, and digitalis is prescribed as a matter of course. But in the present instance digitalis is not called for at all. All remedies which cause depression and disturbance of the system are contra-indicated, first, because they would accomplish no good, and, secondly, so far as they had any effect, it would be an injurious one. What we have to do here is to see what the man needs to put him in the best general condition possible. It is of the most importance to him to have good, nourishing alimentation, and if his digestion is defective he should have appropriate remedies to improve it. In this case there is merely a question of toleration, and as the general system is in good condition, the heart is not likely to give rise to trouble. The patient has now been in the hospital a week, and with the nourishing diet, rest and freedom from anxiety which he has had here, he has in this short time already improved to a very appreciable extent, as I am given to understand.

As to the matter of dyspnoea, it is too much the custom for physicians to tell their patients suffering from cardiac disease that they must be exceedingly careful about taking exercise for fear of evil results, but this kind of advice has a bad effect on such patients. In the first place it keeps their minds continually on the subject of their hearts, which of itself is very injurious, and, secondly, it deprives them of that amount of exercise which is essential to the maintenance of health, and which, indeed, as a rule, they could take perfectly well. The safest plan is to direct such patients to take just as much exercise as they can without inconvenience or discomfort.

In the case of our second patient, whom I now bring before you, we notice on inspection of the chest only one movement instead of two, as in the other, at the apex of the heart, while there is in addition a second movement at the base. The heart is undoubtedly enlarged, because the apex-beat, as you will observe, is considerably lower down than it ought to be. Unlike the former case, it is also found much further to the left than its normal position, a point which leads us to infer the presence of mitral disease. In this respect the first case was an exception to the general rule, the apex-beat being carried so little to the left that it would, perhaps, seem to indicate an aortic rather than a mitral affection. On account of the strength of the impulse of the present instance we infer that there is hypertrophy rather than dilatation of the heart.

On auscultation we get a systolic murmur at the apex which differs from that in the other case in being less loud, much lower in pitch, and not of such a marked bellows-like character. Again, however, there is no evidence of any mitral obstruction; but when we apply the stethoscope at the base we get with each systole a loud, rough murmur, which must, therefore, be a direct aortic murmur. But in addition, instead of the second sound of the heart, there is found another rough murmur, so that we have here a systolic and diastolic aortic murmur besides the systolic mitral murmur. The latter is much weaker in tone than the aortic murmurs, but notwithstanding this it is quite possible that the mitral disease may be more serious than the aortic. The practical lesson to be learned from this is that it is never safe to judge of the gravity of disease of the heart from the intensity and quality of the mur-

murs heard. I find in this case distinct evidence of dilatation of the aorta (though not necessarily in the form of a sacculated aneurism) in addition to the cardiac disease. I would warn you, however, never to form a diagnosis of aortic aneurism from the roughness of murmurs heard at the base.

This patient is only twenty-eight, and therefore not of an age which entitles him to have aneurism, which, as a rule, occurs at a later period of life. I am quite sure, however, that there is dilatation of the aorta here, and when this occurs as early as the age of this man, it is almost invariably due to one cause, namely, syphilis. This he denies having had, but as he also says that he has never had acute articular rheumatism, I am afraid we shall have to place the weight of pathological authority against the word of the patient.

On questioning him, I find that notwithstanding the fact that he has an enlarged heart, with both mitral and aortic lesions, he is able to work hard, and that he manages to get along very well altogether with the exception of a pain in his side sometimes. His heart is really much larger than that of the other patient, but he suffers less inconvenience because the valvular disease is compensated for by predominant hypertrophy, while in the other case the heart has reached the limit of its growth. In the latter, the cardiac walls have become more or less thinned, and the predominant dilatation gives rise to greater weakness and interference with respiration.

Our next patient is a Bohemian, who does not speak any English. On inspection and palpation we get two impulses, and find that the one at the apex is not so strong as a second one that is higher up. The apex being lowered and carried considerably to the left in this case also, we have a sufficient basis to warrant the guess that here again there is a mitral lesion. Auscultation reveals the presence of a loud, high-pitched, bellows-like systolic murmur, and there being no presystolic murmur, we form the diagnosis of mitral regurgitation without obstruction, as in the other cases. At the base the only adventitious sound is an indistinct murmur, which is simply a transmission of that heard at its maximum intensity at the apex. We have again, therefore, a case of mitral insufficiency and enlargement of the heart, and as it is the right ventricle that is principally affected in the latter, the pulmonic second sound ought to be intensified as compared with the aortic second sound. I find, in fact, that the difference between the two is so great that it convinces me that it depends on weakness of the aortic sound as well as the intensifying of the pulmonic, and therefore we are enabled to form some idea of the amount of regurgitation that is here present.

In the last patient whom we shall have time to examine to-day, I find again the apex lowered and carried considerably to the left. There is, then, cardiac enlargement here also, and from the character of the impulse there can be little doubt that there is predominant hypertrophy rather than dilatation. The first sound of the heart also indicates this. In hypertrophy the first sound is loud, long, and booming, while in dilatation it is short, weak, and valvular in character. There is once more a mitral systolic or regurgitant murmur, and no direct mitral murmur indicating obstruction. In this case it is quite a feeble murmur, and, therefore, in marked contrast to that heard in some of the other patients. At the base there is found an aortic direct murmur, loud and rough, and an aortic regurgitant, feeble and soft. In connection with this case, I would again impress upon you the caution of not judging of the gravity of cardiac disease from the intensity of the murmurs

present Twenty years ago there was connected with the house-staff of this hospital a young physician who had a well-marked aortic regurgitant murmur, yet ever since then he has continued in the active practice of his profession, and to-day the general state of his health is excellent. If I had time I could tell you of a large number of similar instances. Although this patient has enlargement of the heart, mitral insufficiency, and both aortic insufficiency and obstruction, I will venture to predict that he will do well because his system has already tolerated this cardiac condition for a considerable time, and the symptoms of the case do not now indicate any immediate serious trouble such as we would apprehend if there were present dyspnoea without taking exercise, cyanosis, and general dropsy.—*Boston Medical and Surgical Journal*.

ABSTRACT OF A LECTURE ON CATARRH OF THE NASO-PHARYNX, OR AMERICAN CATARRH. Delivered at the London Hospital Medical College. By MORELL MACKENZIE, M.D., Lecturer on Diseases of Throat.

After defining the disease, and giving a short account of its very meagre literature, the lecturer remarked that the postnasal catarrh was much more common in this country than was generally supposed, but that it was much milder than in America, where it was so universal that it might be looked upon as the national complaint. In referring to the cause of this affection, the lecturer gave the results of his recent observations in America in the following terms :

Though I would not for a moment place my experience of American catarrh on a level with that of any of the eminent specialists who have given attention to the subject in the United States, I may remark that, in a recent tour through that country, I had a very favorable opportunity of studying the complaint; for I not only saw examples of the disease over a very wide tract of country, but also observed the atmospheric conditions under which these cases occurred—enjoying, moreover, the great advantage, in many localities, of discussing the subject and hearing the views of able physicians who had been studying the affection on the spot for many years. I was greatly astonished at the very wide diffusion of the affection. I met with it all over the Eastern States; it was very common in Chicago and St. Louis, which may now be called the central cities of America; I found it prevalent in Nebraska, and, to a slighter extent, in Utah; and, again, I encountered it on the Pacific coast, finding it very common in San Francisco. I had not the opportunity of seeing any patients in Nevada, as I merely travelled through that State without stopping; but in London I have treated many American travellers for postnasal catarrh, who had acquired the disease on the alkaline plains of the Silver State. I also saw a good many patients suffering from catarrh of the naso-pharynx in Colorado. In southern California and Arizona I scarcely met with any cases; and in Canada the affection, though much more common than in Europe, did not seem so universal as in the States. American catarrh, it would seem, principally prevails between latitude  $44^{\circ}$  and latitude  $38^{\circ}$ .

My travels in America were made in the latter end of August, and in September and October—that is, during the most favorable season of the year; and I have little doubt that, had I been there in the winter, I should have seen a great deal more of this widespread ailment. In many of the regions referred to there are local conditions which tend

to irritate the mucous membrane. Thus, all along the entire Eastern sea-board the atmosphere during the winter months is cold and moist, while in the summer it is excessively hot. In San Francisco fogs prevail in the summer months in the early part of the day, while in the afternoon a cutting wind blows continuously. In Colorado, on the other hand, the climate is so extraordinarily dry, that only those who have been there can thoroughly appreciate it. The inhabited portion of the country consists of extensive plains situated at an elevation of 5,000 or 6,000 feet above the level of the sea. The dryness of the climate may be gathered from the fact that not a drop of rain falls during nine months of the year; the result being that no trees can flourish, the scrub oak being almost the sole representative\* of our forest-trees, and this being only found in the narrow valleys, or canyons, as they are called. Indeed, so extremely dry is the soil, that not unfrequently all the prairie-grass perishes. The atmospheric conditions, though admirably suited for some forms of consumption, are nevertheless extremely irritating to the mucous membrane of many persons. The white alkaline dust, which covers hundreds of miles in Nevada, is also met with here and there in Colorado. In the winter and spring the winds are often rather strong, and it will easily be imagined that at such times the abundant dust of this extraordinarily dry country is very irritating.

The soil of the American continent differs so widely in different parts that it is impossible to suppose that it is concerned in the etiology of the affection. Again, it will be readily understood that the meteorological conditions over this vast area are so various, that they cannot be regarded as a cause acting with anything like uniformity. The general character of the atmosphere of the American continent, as compared with that of Great Britain, and also with most parts of Europe, is that it is drier, that the changes of temperature are more sudden, and the extremes of temperature much greater. There is nothing, however, in these conditions to account for the localization of the complaint in the naso-pharynx; and it would seem that postnasal catarrh is not due to what may be strictly called climatic influence, but to something which is accidentally introduced into the atmosphere of widely-differing localities; in other words, that there must be irritant particles floating in the air over very wide areas. This is actually the case, for *dust* is to be found everywhere in America.

The universal prevalence of catarrh is, indeed, fully explained by the abundance of dust, both in the country and in the cities. Owing to the immense size of the country, and its sparse rural population, the country roads have not, as a rule, been properly made, and, except in some of the older States, are merely the original prairie tracks. In the cities, notwithstanding the magnificence of the public buildings, the splendor of many of the private houses, and the beauty of the parks, the pavement is generally worse than it is in the most neglected cities of Europe; such, indeed, as are only to be found in Spain or Turkey. It must be recollected also that, while in the decayed towns of the Old World there is very little movement, in the American cities there is a ceaseless activity and an abundance of traffic. Hence, the dust is set in motion in the one case, but not in the other. The character of the dust, of course, varies greatly, according to locality. In some parts it is a fine sand, in others

\* The cotton tree, though indigenous in certain parts of South America, appears to be an exotic in Colorado, and I only saw it as an ornamental tree in the streets and gardens of some of the cities.

an alkaline powder ; while in the cities it is made up of every conceivable abomination, among which, however, decomposing animal and vegetable matters are not the least irritating elements. An idea may, perhaps, be formed of the state of the atmosphere from a consideration of the fact that in many cities the functions of the scavenger are quite unknown.

That a dusty atmosphere is the real cause of postnasal catarrh is rendered probable by a consideration of the anatomical relations of the naso-pharynx. For, owing to its being a *cul-de-sac* out of the direct line of the respiratory tract, particles of foreign matter which become accidentally lodged in its upper part are got rid of with difficulty—most likely by an increased secretion, which, as in the case of the conjunctiva, washes away any gritty substance which may temporarily alight on the membrane. As regards the larynx, irritating dust is expelled by coughing, which may be either reflex or voluntary ; and again, in the case of the nasal passages, the minute particles of matter which constitute dust are expelled, if they happen to be obnoxious, either by sneezing or blowing the nose. But reflex acts, such as coughing and sneezing, have no effect on the upper part of the naso-pharynx, and it is only by a voluntary act, known as “hawking,” that this cavity can be partially cleared. It is probable also that, owing to the sensibility of the naso-pharyngeal mucous membrane being less acute than that of either the nose or the larynx, minute foreign bodies, accidentally lodged in the vault of the pharynx do not cause an amount of discomfort at all corresponding to that in the adjacent parts ; hence, particles of matter are more likely to remain *in situ* for a longer time in the postnasal region than in either of the other parts, and are, of course, very apt to set up disease. In this country the complaint is most common in persons whose pharynx is large in the antero-posterior direction, a form of throat which facilitates the entrance, without favoring the expulsion, of foreign particles.

While, however, it is highly probable that dust is the most frequent cause of postnasal catarrh, no doubt it is not the only one. Many circumstances favor its development. Some physicians have attributed it to the custom of overheating houses by hot air and steam, as is commonly done in America. In the winter, the temperature is never allowed to fall below 70°, and is generally much higher. The sudden passage from this temperature to that of the street is often not unlikely to set up catarrh ; but as the same mode of heating is used in Russia without, as far as I am aware, giving rise to any postnasal affection, its influence cannot be very great. The importance of heredity in the etiology of catarrh has been recently strongly insisted on by Bresgen, (“*Der Chronische Nasen und Rachen-Katarrh*,” Wien und Leipzig, 1883, p. 47); and, although no extensive series of exact observations have yet been made on this point, there is every probability that a disposition to catarrh may be inherited. I have seen so many instances, however, in which foreigners making a short stay in America have become affected with postnasal catarrh that I think there is little doubt that atmospheric conditions—and those, let me add, of an accidental and controllable character—are much more powerful than heredity.

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IS THE SPLEEN NECESSARY FOR LIFE ?—Prof. Schuethauer, of Pesth, reports in the *St. Petersburg Med. Wochenschrift* the post mortem upon a woman, aged seventy-one, where no spleen was found and had never existed.

## SELECTIONS.

ON URIC ACID: ITS RELATION TO RENAL CALCULI AND GRAVEL. By A. B. GARROD, M.D., F.R.S., F.R.C.P., etc., Consulting Physician to King's College Hospital.

Healthy human urine consists of water, holding in solution both organic and inorganic principles; the former are, urea, uric, and hippuric acid; the latter, chlorides of different metals, especially sodium, and phosphates of sodium, magnesium, and calcium.

It is to uric acid that we must chiefly direct attention; and I must endeavor to show (1) in what state of chemical combination it exists in the urine; (2) why it is held in solution in an acid fluid; (3) what are the causes which lead to its precipitation from the urine; and (4) what are the different shapes which it assumes when it is thus precipitated from its state of solution.

1. At the present day I believe it may be asserted that uric acid, when in solution, is combined chiefly with sodium, but that there are also varying quantities of other bases present, depending on the amounts of different salts contained in the urine. I have already shown that when urate of ammonium is dissolved in blood serum in which the soda salts are present, it is converted into urate of sodium; and, bearing this fact in mind, we can explain the discrepancies which are found in different analyses of urate deposits, both in health and disease. I may, however, say that the deposit which until recently was commonly called lithate of ammonia is composed almost entirely, in healthy urine, of urate of sodium. If, however, the urine at any time becomes ammoniacal from the decomposition of the contained urea, then the uric acid, meeting with a large excess of the new-formed base, gets deposited as urate of ammonium, a salt which is very insoluble.

2. The next point to be considered is the reason of its existence as urate of sodium in a fluid having such a well-marked acid reaction as healthy urine. This fact was for a long time difficult of explanation; but Liebig showed that if to a warm solution of the common phosphate of sodium, which has an alkaline reaction, uric acid be added till it no longer dissolves, the solution becomes strongly acid, and there is contained in it urate of sodium and the acid phosphate of sodium, which latter salt exhibits a full acid reaction, but does not possess the power of precipitating the uric acid. This phenomenon solely depends on the tribasic character of phosphoric acid, which allows of solution of phosphates, which reddens litmus powerfully without containing any free acid.

3. When, however, the least trace of a free acid, even acetic, exists in the urine, the whole of the uric acid is rapidly precipitated; a fact of considerable importance in the study of diseased conditions of the urinary excretion. If our attention is directed to the subject, we see almost daily that, when urine is kept for a time, perhaps only a few hours, the uric acid, which at first was in complete solution, becomes gradually deposited in the crystalline form—a change due to the generation of a free acid in the urine by the occurrence of what is called the acid fermentation.

4. Our last point is to ascertain what shape the uric acid assumes when it becomes insoluble and is precipitated from the urine. It may be thrown down either in combination with a base—that is, in the form of a urate, or as free uric acid. When as a urate, it is often from simple concentration, or from the presence of too small a quantity of water in the urine, and it seldom happens that such a deposition takes place in the urinary organs themselves unless there is something present, such as a foreign body or the nucleus of a calculus, which greatly facilitates it. When, however, such urine is removed from the body

and cooled down to the temperature of the air, more especially in cold weather, the appearance of turbidity is extremely common, and often becomes, though most unnecessarily, a source of great mental disquiet to patients. When the urine, either concentrated or not, becomes abnormally acid, it at first causes the urate existing in it to be less soluble, but soon afterward the acid itself is separated and deposited in the crystalline condition, forming what is commonly known by the name of Cayenne pepper gravel. Let us take what may be looked upon as pure uric acid; dissolve it in boiling water, and then allow it to cool and crystallize; it will be found in oblong tabular crystals, which are both homogeneous and transparent. When uric acid crystallizes out from urine, it is more or less colored, from yellow to brown, and in the form of thin rhomboidal prisms, showing that there must exist in the urine something which causes an alteration not merely in the color, but also in the crystalline form.

The result of our inquiries, so far as they go, may be summed up in a few words. Perfectly healthy urine should show no appreciable deposit; when, however, it becomes concentrated from deficiency of the watery excretion, then the uric acid is thrown down in the form of a urate. This may occasionally occur within the body, but far more frequently after the urine has been voided; sometimes, however, this change ensues so rapidly that the urine is erroneously supposed to have been passed in that condition. The presence of a solid body in any part of the urinary tract favors deposition very much, and hence urine which would otherwise remain clear may yield a deposit to any substance previously present in the same tract, and may thus add considerably to an already existing calculus. The appearance of the numerous layers so frequently seen around a central nucleus, both in renal and vesical calculi, is thus easily explained. When, however, the urine becomes further altered in composition—if, for example, a free acid is either extracted with the urine or rapidly generated in it through the setting up of the lactic fermentation, the uric acid becomes liberated from its state of combination, and, in a form more or less altered by the presence of colloid matters, is deposited on a previously existing calculus, or is passed as separate rhomboidal crystals or in aggregated masses, constituting gravel or sand. I should feel disposed to confine the name of “sand” or “gravel” exclusively to such deposits which, I believe, seldom form the nucleus or become the starting point of any calculus. I may add that urine possessing these characters is frequently voided for months and years without the occurrence of any appreciable inconvenience to the patient. It is true that a calculus may be augmented by contact with such urine; but, as I have said, it seldom originates in this way.

According to this view, which I feel inclined to adopt, gravel or sand consists of uric acid previously in a state of solution, which has become precipitated by the occurrence of some change in the urinary excretion.

Some individuals pass a larger daily quantity of uric acid than others; but, at the same time, those who pass the largest quantity may have a urine little disposed to deposit the principal; and it will be found, as a result of experience, that changes in the urinary excretion, leading to the crystallization of its contained uric acid, are much more potent factors in the production of sand or gravel than the mere quantity of this acid which is eliminated. If there is a simultaneous occurrence of the two conditions—that is, of increased quantity of the acid and altered state of the urine—this facilitates still more the production of the morbid appearances.

*Influence of Diet.*—There can be little doubt that the occurrence of gravel and calculus is largely influenced by the diet, but on this subject I feel sure that the opinions frequently held are not altogether correct, and require to be reconsidered. As we shall find that a gouty diathesis is so potent in the production of the disease under review, it will be quite safe, in so far as the discussion of



food is concerned, to assume that what tends to produce gout tends also to develop calculus, and that the diet which is of avail in the treatment of the one disease is equally so in the management of the other. It will be desirable to turn our attention to the principal groups of aliments, and ascertain what influence they have upon uric acid, and also upon its condition with respect to solubility.

*Sugar.*—The most common of the non-nitrogenized principles contained in food is starch, seeing that it forms 70 per cent. of wheaten flour, and almost the whole of many of the simple amylaceous articles of food, as rice, maize, arrowroot, sago, etc.; also of the potato, turnip, carrot, and so on, when these latter are dried. It can be shown that, when taken into the alimentary canal, starch is soon changed into glucose sugar by the action of the saliva and pancreatic juices; and, when cane sugar is taken, the same change ensues, so that however carefully sugar is avoided as an article of food, it is still abundantly formed in the canal when amylaceous matters are eaten, and the result is the same whether a pound of starch in any of its dietetic forms or a pound of cane sugar be taken.

There is a very popular idea that sugar causes what is termed acidity, and hence it is scrupulously avoided by many. Is this true? Between two or three years ago I was much struck at seeing an American surgeon of great repute putting lump after lump of white sugar into his tea, and I asked him why he did so. He told me that in the States it is a common habit to take sugar thus as a preventive of heartburn, and that he took it for that purpose. His answer made a strong impression on my mind, and since then I have often questioned dyspeptic patients as to their experience on this point. At first nearly all exclaim, "Of course sugar causes acidity," but as yet I have failed to find any one who could assure me, from personal experience, that the eating of lumps of ordinary white sugar produces more so-called acidity than taking any other article of diet. It must be borne in mind that I do not for a moment include sweetened fruits, and such like substances, in the same category as simple sugar. One can hardly believe that the eating of a lump of cane sugar would seriously add to the glucose which is daily produced in the alimentary canal of an individual living on an ordinary mixed diet. Let us see what has been found experimentally with regard to the influence of sugar on the production of uric acid. Böcker says that the effect, in man, is to lessen the quantity of that principle, and Bischoff and Voit have proved that, in dogs, starch produces the same effect on the urinary excretion as sugar, so I think we may say that there is no increase in the uric acid when sugar is taken.

I must devote a few minutes to the discussion of a most important subject—viz., the influence of different alcoholic beverages on the production of uric gravel and renal calculi. We must remember that all such beverages contain alcohol united with different proportions of water, some little more than this; others, however, contain sugar together with coloring and so-called extractive matters, also salts of potash and lime united with vegetable or mineral acids. Many wines also contain a certain amount of some free organic acid. Now, have we any facts with regard to the special effects of different wines in the diseases which we are now considering? I think we have many, and much information which we can use to guide us in the prevention of such diseases. It may, as I believe, be confidently asserted with respect to gout, that, with an absence of alcohol in any shape, coupled with an absence of hereditary predisposition derived from alcohol-drinking ancestors, the disease would be practically unknown.

It is most essential to separate the different kinds of alcoholic beverages from each other in estimating their tendency to produce disease. Thus, alcohol in the form of distilled spirits, although when taken in excess it causes serious

mischievous, injuring the liver, kidneys, heart and other organs, still has little or no power of producing the uric acid diathesis, or, at any rate, the gouty development of it. In spirit-drinking countries, or among spirit-drinking families, gout is unknown. Look at Scotland and its whiskey-drinking classes—the disease is practically absent, hardly ever seen in the hospitals. Look at Poland, where they drink a kind of arrack; the same holds good.

When, however, we investigate the influence of wines we shall find a different result. Drinkers of the common light wines, such as the red Bordeaux and the Rhine wines, suffer but little, while, among the same nations, those who indulge freely in beer are by no means free. The natural light wines, in which the alcohol is small in amount, while there is an almost complete absence of unfermented matter, which contain also a considerable amount of acid vegetable salts, are little liable either to produce gout or to lead to the formation of calculus or gravel. On the other hand, the Peninsular wines and those which resemble them, which are stronger in alcohol, contain much unfermented matter, and are almost devoid of the vegetable salts, have great gout-producing power, and lead readily to a condition of urine favorable to the production of gravel and calculus.

We come, lastly, to the malt liquors, ale, beer, stout, and porter. From my own experience, and I believe it is also the experience of all who have attended to the subject, I can confidently assert that these beverages have a great tendency to produce the uric acid diathesis. Compare the hospitals of Edinburgh and Glasgow with those of London; in the former gout is scarcely known, in the latter the disease is common, the difference, as I believe, being chiefly due to the different beverages drunk by the working classes of the two countries; it is, in fact the difference between whiskey and malt liquors.

It is necessary that we should at least endeavor to ascertain what principle or principles, present in some of these alcoholic beverages, absent from others, lead to the development of this diathesis or aggravate it when it is already manifested owing to hereditary or other causes. It cannot be the alcohol alone; this, I believe, can be fully and satisfactorily proved, seeing that large groups of people whose custom is to drink freely of distilled spirits are yet free; instances are to hand in Scotland, Sweden, Norway and Poland. It cannot be the sugar alone; for, although the partially-fermented wines and malt liquors contain sugar, yet sugar added to distilled spirits does not appear to produce the uric acid diathesis. It cannot be the acidity alone; for the wines which are most harmless are quite as acid or even more so than malt liquors and the Peninsular wines, and many people who strongly object to the least acidity in wines will often take lemon juice to an extravagant extent. If, then, neither the alcohol, nor the sugar, nor the acidity by itself is the cause of certain beverages proving so injurious, is it a combination of any of these that does the harm? We already know that the combinations of alcohol with sugar, and that of alcohol with acid salts, are innocuous as far as the uric acid diathesis is concerned. What, then, is there left for us to fall back upon in explanation of the peculiar properties which some of these beverages possess, while others are devoid of them? The only conclusion that I can arrive at with my present knowledge—and it is the result of much thought during many years—is that it is something which is a result of imperfect fermentation, and you will find that it is those beverages in which fermentation has commenced, and has been allowed to proceed to a certain extent and has then been checked, which, of a certainty, cause gout, and probably lead also to the production of gravel and calculus. If I am asked to state more exactly what this principle is, I cannot do so; it may be an influence only, a condition of matter—a ferment.

In connection with this subject, however, I must return for a moment to that of sugar, which I told you had, as I thought, been regarded askance without due cause. I would say that I do not for a moment classify with sugar either

sweetened fruits or vegetables ; for I am quite sure that such articles of diet will frequently produce heartburn and other dyspeptic annoyances in individuals who are not in the least inconvenienced by sugar itself. I cannot help thinking that these contain a something which is not simple sugar, but a substance which is the result of the long contact of the sugar with the fruit or vegetable juices, a kind of semi-fermented matter—in fact, that same “something” which exists in the stronger wines and the various malt liquors. Of this I feel confident, that in many cases where sugar, whether by itself or in tea, coffee, and light puddings, do not disagree, and where fresh fruit, although sweet, produces no discomfort, the combination of sugar with these juices, if time has been given for them to act upon each other, will often cause well-marked dyspeptic symptoms. But, it may be said, if so, a ripe orange cannot be a good thing to eat, as it contains both sugar and acid juice, and these substances have been in contact with each other for a long time. I answer, not necessarily so ; so long as the orange exists as a fruit, with its botanical structure intact, so long there may be no change taking place between its different constituents. We have a striking analogy to this in the case of the bitter almond. When whole this seed contains the crystalline amygdaline and an albuminous ferment. Separate one of these from the other, and each by itself is innocuous ; crush and moisten the almond, prussic acid is immediately formed, and the union of the two principles is the production of a deadly poison.

I must now refer to classes of food in reference to the uric-acid-secreting function ; and, first, with respect to the influences of a nitrogenized, and especially of an animal, diet. Observations are not wanted to show the effects of a pure meat diet on the urine. Those of Lehmann are perhaps the most satisfactory. He first determined the daily excretion of the principal constituents of his urine when on an ordinary mixed diet ; he then placed himself on a purely animal diet (chiefly eggs) for twelve days ; afterward, for another twelve days, on a purely vegetable diet ; and subsequently, for two days, on a purely non-nitrogenized diet, which consisted of fat, milk, sugar, and starch. His conclusions are that the total solids, as well as the urea, are much increased by animal food, while they are considerably decreased by a vegetable diet, and still more so by one which is non-nitrogenized ; whereas the uric acid is not nearly so much affected by the nature of the food, provided that it contains nitrogen. Thus the urea, on an animal diet, was to the uric acid 53.198 : 1.478 ; on a vegetable diet, 22.481 : 1.021 ; and on a mixed diet, 32.498 : 1.183. He found that after the use of purely animal food the urine of man closely resembles that of the carnivorous mammals, becoming of a light amber-color, having a strong acid reaction, and containing neither lactic nor hippuric acid. On the other hand, after a course of vegetable food, the urine becomes of a brownish-red tint, is much less acid, often deposits the earthy phosphates, and always contains alkaline lactates, with oxalate of calcium ; in fact, the urine closely approaches to that of the herbivorous mammal.

As a result of all the experiments made by different observers, both on man and the lower animals, I think we may fairly conclude that meat, taken in such quantities only as are sufficient to keep up the nutrition of the body, has no tendency to increase the excretion of uric acid ; that, when the diet is purely animal, but the quantity small, the uric acid, far from being large, becomes exceedingly small in amount, more especially when it is compared with the urea. On the other hand, that the taking of a great quantity of meat—an excess compared with the requirements of the system—tends to increase the uric acid, though, even then, not more than in proportion to the urea.

These different facts can be advantageously applied in practice in the treatment of gravel and calculus. In such cases there is certainly no reason why a proper quantity of animal food should not be taken ; and the knowledge of this

is important, seeing that many patients have been lowered in health by being kept on insufficient diet, with the idea that by these means a lessening of the excretion of uric acid would result.

*Effects of Alkaline Treatment.*—In the treatment of uric gravel and calculus the different alkalis and their salts play a most important part. If we give any fixed alkali in the state of a carbonate, it is, we know, absorbed, and passes through the kidneys in an unaltered form—that is, a carbonate, when taken by the mouth, appears as such in the urine, and, therefore, necessarily diminishes the acidity of that fluid, sometimes rendering it neutral or even alkaline, according to the quantity administered; so that if we give, at frequent intervals throughout the day, a quantity of the alkali equal to the neutralization of about thirty grains of oxalic acid—the average acidity of the day's urine—we shall, as a rule, keep that fluid in a neutral state.

In considering the equivalents of the different alkaline metals whose salts are employed in medicine, we find that the neutralizing power for acids of the different bases must vary considerably. The most practical method of estimating this power is to measure the different alkaline metals, in the form of their carbonates, against each other, when we find that seventy-four parts of carbonate of lithium equal eighty-four parts of carbonate of calcium (chalk or its congeners), 106 parts of carbonate of sodium, and as much as 138 parts of carbonate of potassium. It must, however, be remembered that it is not merely the neutralizing power for acids of the above compounds that has to be considered in treating of uric acid disorders; we must also look at the character of the salts which result from the combination of the acid with the metal, for some urates are very much more soluble than others.

It is a matter of clinical experience that lead-impregnation powerfully disposes to the production of gout; and I can also assert, as a result of long-continued observation, that iron salts have a considerable tendency to cause a recurrence of an attack when administered, as they often are, with a view to overcoming debility.

The difference of solubility in the alkaline urates forms a subject of great interest, for the value of a solvent may often be expressed correctly as the product of its neutralizing power plus the solubility of the resulting salt. Let us take, for example, carbonate of sodium. It has been shown that its neutralizing power is large compared with carbonate of potassium, 106 parts of the former doing the work of 138 parts of the latter; but on looking at the table of solubility, it is seen that the soda salt has less than half the solubility of the potash salt. The same remark applies to carbonate of magnesium, as, although it possesses great neutralizing power, the resulting salt is very little soluble, and the very sparing solubility of the lime salt renders its employment as a solvent of uric acid undesirable.

The other properties of the alkaline salts must also be taken into consideration when they are administered as remedies. On comparing a soda salt with a corresponding potash salt, it is found that the latter is more prone to produce diuresis than the former; at the same time, there is good evidence that the alimentary canal and its appendages, especially the liver, are more influenced by soda than by potash. This is what might naturally be expected, seeing that true bile consists essentially of glycocholate and taurocholate of sodium. Magnesia salts act more or less as purgatives, and lime salt as astringents, but all act as neutralizers of acidity, and to some extent as solvents of uric acid. Gravel and calculi usually consist of free uric acid, and even the least soluble of the urates, omitting lead and iron, are much more soluble than uric acid itself.

There is one alkali—lithia—which will require some few minutes' consideration, and upon which I propose to bring forward several new observations and experiments; but, before proceeding to discuss its value, I may make some

remarks on the different salts of the alkalies, some of which are more eligible for exhibition, especially in the treatment of gravel, than the carbonates.

All of us are probably aware that, if an alkaline citrate is given by the stomach, it is changed, either in blood or kidneys, into the corresponding carbonate. The same is the case when an acetate or tartrate is administered; in fact, most of the vegetable salts are thus decomposed in the system, carbonates appearing in the urine. The establishment of this point is important, inasmuch as we can, by the use of these valuable salts, introduce into the system, through the mouth, salts which have no alkaline action on the stomach and often form an important part of vegetable food, and can still produce the remote alkaline influence where it is wanted; in short, we can often give even an acid salt, grateful and useful to the stomach, and yet have the very opposite effect induced upon the urine.

I will now draw your attention to the salts of lithia, which were first introduced as remedies by myself as far back as 1859. If we look to the atomic weight of the metal lithium, we find it very low, only 7. The number representing the carbonate of lithium is also small; compared with carbonate of potassium it is as 74 to 138; hence, the neutralizing power for acids possessed by carbonate of lithium is greater than that of carbonate of potassium in the above proportions. The acid urate of lithium requires only 220 parts of water at the body temperature to dissolve it; the corresponding potash salt requiring 500 parts, and the soda salt as much as 1,130 parts, while the magnesia and lime urates take 1,600 and 2,800 parts respectively; so that, with respect both to neutralizing power and solubility the lithia carbonate has a great advantage over the corresponding salts of potash, soda, magnesia, and lime.

THE USE AND ABUSE OF PESSARIES.—This subject has before now been discussed from the point of view of the proper selection of cases in which pessaries are or may be useful. The subject has various bearings. In the first place, the statistics of Vedeler and Herman, quoted in this journal, show that ante flexion is more normal than any other condition in multiparous women, and that flexions, as flexions, do not, as a matter of fact, cause dysmenorrhœa. It is impossible to conclude that if flexions do not cause the most direct of all uterine symptoms—dysmenorrhœa—they will cause the symptoms known as indirect or remote, for a test of which we refer our readers to the text-books *passim*, and which include almost every ailment to which female flesh is heir. This being the case, it follows that flexions, as flexions, should not be treated. But, secondly, we will suppose a typical case in which pessaries are known to do good—namely, more or less descent of the uterus, with or without retroversion or retroflexion (which are almost probably indications of descent), and we will suppose a pessary to be inserted—what amount of attention (*i.e.*, attendance) should this entail? Undoubtedly a woman wearing a pessary should not be sent away ignorant of its presence, and without any directions. She should therefore be informed that such an instrument has been inserted; and she should be given certain directions. Thus, it is advisable at once to tell her that it is well to wash out the vagina once or twice a day with simple water, which will prevent secretions from accumulating, decomposing, and causing an unpleasant smell (which in some cases is bad enough to suggest the presence of cancer); she should also be told that soreness, itching, or profuse discharge indicate that the pessary should be seen to, and, generally, that it should not be worn without being seen to three or four times a year. It is also usually advisable that the doctor should satisfy himself in a week or so that the pessary is doing good, and doing no harm, and then, having once started the treatment, the patient should be left to test its efficacy. Now, this test implies the removal of some symptoms or symptom, which may justly be attributed to some former morbid condition, and

it also implies the locomotion of the patient. Generally speaking, a patient lying down is better without a pessary, whatever displacement is present; thus it is rare for even complete procidentia not to reduce itself, or become much smaller, when the patient lies down, and the symptom of partial descent, which (if there are any symptoms) will include almost certainly a sense of weight and dragging pain in one or other iliac fossa, will disappear, or become greatly diminished, in the recumbent position. A pain which is better when the patient is standing and worse when she is lying should be regarded with suspicion if supposed to be due to descent or displacement; it is probably nothing of the kind. Thus it is to relieve pains, increased by standing, that pessaries are most generally useful. If this is not effected, the uterus may be unquestionably in the "normal" position, but the pessary is useless, and, if useless, injurious. Thus, the proper use of pessaries is first, in most cases, after the insertion of the pessary, to get the patient on her legs; secondly, to satisfy one's self in a few days that it is doing good and is doing no harm; but, as soon as both these objects are attained, to send the patient away to test the treatment, with the above directions. It should not be the task of months to fit a woman with a pessary any more than with a truss. The following are *not* instances of the proper use of pessaries. To keep the patient in bed for long periods wearing a pessary; to see her every day, every other day, twice a week, for weeks, months, or years. Perhaps such visits are not made to the patient, but to the pessary. However that may be, it is not the pessary, but the patient who has to pay. What should we say of a surgeon who called for months to see a patient to whom he had given a wooden leg or a truss, and who kept him in bed for long periods; or of an oculist who had fitted a patient with spectacles, and saw him every day for several months, whether the spectacles seemed to suit him or not? It is true that the pessary is a truss in the dark, but that is no reason why the management of a pessary should be a deed of darkness. Recent investigations have shown that the whole question of displacements has to be reconsidered. It cannot be too widely or too dogmatically stated that prolonged treatment by pessaries, such as we have described, is quite inadmissible and unnecessary, injurious not only to the patient—*i.e.*, to her *morale* as well as her purse—but also, in the best sense, to the practitioner; and, if to the patient and practitioner, then to the public and the profession. It should also be realized that a pessary is a mere form of truss, and that its operations, though removed from the general view, are not occult. Ill-treatment bids fair to bring this useful form of truss into disrepute, and we are daily expecting to meet the practitioner whose sensitiveness is such that he shrinks from a cure whose name he has learned to mistrust and dislike; but we feel bound to say we have not come across him yet.—*Lancet*.

SURGICAL EXPEDIENTS IN EMERGENCIES.—R. J. Levis, M.D., Surgeon to the Pennsylvania Hospital and to the Jefferson College Hospital, read the following at the Medical Society of the State of Pennsylvania:

It is in the experience of every surgeon to be occasionally obliged, in the absence of ordinary means and applicances, to devise resources available at the moment. Such occasions bring the practical character of the surgeon to the test, and on his readiness for the emergency may depend the relief of suffering or the averting of a fatal termination. His reputation, too, may, at such times, stand in the balance of good or ill report, to be turned happily in his favor or gravely against him.

The exigencies of active surgical practice have frequently obliged me to rely on hastily-devised resources, and I trust that the record of some of them which I recall may possibly be of benefit to the profession and a relief to human suffering.

The necessity for evacuating an over-distended bladder is liable to become immediately urgent on occasions when a catheter is not quickly attainable. It is remarkable how often this condition is overlooked by practitioners, until it becomes one of suffering and danger, demanding instant relief. The continued dribbling that often occurs from an almost bursting bladder may mislead or blind one to the grave danger. The absence of a catheter on one such pressing occasion led me to contrive a ready means of evacuating the urine. The recourse was to a piece of iron bell wire, bent double on itself, and the blunt doubled end passed readily through the urethral tract to the bladder. The distention of the urethra by the doubled wire allowed the urine to freely pass between the wires.

A female catheter may be extemporized from a short piece of rye straw, the end of which is to be closely wrapped for a short distance with thread; or the end of the straw may have its sharpness removed by dipping into melted sealing wax. The stem of the ordinary clay tobacco pipe is also efficient for the purpose. Such crude substitutes, when oiled, are readily introduced.

The operation of venesection would probably be more frequently resorted to when needed if a proper lancet, in perfect order, were at hand; but the critical time for relief of an actively congested or inflamed lung or brain is sometimes allowed to pass for want of a ready and certain method of opening a vein. I once, on a pressing occasion, bled a patient at the bend of the elbow, with perfect ease and precision, with but a blunt-pointed and dull pocket knife, by resorting to a simple, convenient expedient. Having put on the usual constricting bandage to distend the veins, I first transfixed the most prominent vein with a fine needle. Thus held securely, it was very easy, with even the dull knife, to cut a valvular incision into the vein, and the blood flowed freely.

For the arrest of nasal hæmorrhage I know of no device so good as one that may be readily extemporized with a strong piece of cord and some small pieces of sponge. The cord is tied securely with a piece of sponge, cut round, and just large enough to be forced backwards through the nostril. Then a number of similar pieces of sponge, with a hole through the centre of each, are threaded successively on the cord. The sponge on the end of the cord is then pushed, with a probe or dressing forceps, through the nostril, quite back to the faucial orifice; and the rest of the threaded pieces of sponge are slid back, one at a time, until the nares is tightly filled. When the patient becomes secure against a repetition of hæmorrhage, the plugging is readily removed, one piece of sponge being withdrawn at a time with the dressing forceps. The posterior nares may also be plugged by introducing either a slender gum bougie or a piece of thick catgut string, with a cord attached, through the nares, catching one end of it in the fauces with forceps, and drawing it forward through the mouth. To the cord which follows, a piece of sponge or pledget of lint is tied, to be drawn up into the posterior nares.

A method of making unirritating and painless pressure within the nares, in cases of obstinate epistaxis, is by a piece of the intestine of a chicken or other small animal, about twelve inches long, partially filled with either air or water. One end of the intestine is, while empty and collapsed, pushed backwards through the nares; when thus lodged the air or water in the other end is forced, by compression with the hand from the pendulous portion, into the part lodged in the nares. Strong, equable compression can thus be made, rendering hæmorrhage impossible.

In a case of hæmorrhage from the inter-costal artery, from homicidal stabbing, I arrested the flow immediately by making pressure within the pleural cavity, directly on the vessel, by introducing into the wound the handle of a door-key. The key was then turned transversely, so as to make direct pressure, and maintained in that position for some hours, until there was no more

tendency to hæmorrhage. The same mechanical action might be effected by the similar use of the handle of an ordinary gimlet.

As a very efficient substitute for Esmarch's elastic bandage, I suggested some years ago, in an article in the *Philadelphia Medical Times*, the use of a bandage made from ordinary flannel, cut bias, so as to increase its elasticity. Such an elastic bandage, from a material almost everywhere at hand, is, I know from experience, perfectly effective.

The hæmostatic action of hot water does not seem to be sufficiently known and appreciated among practitioners. It is so effective, and can be so readily applied, that it may well displace from practice all other hæmostatics. Water at a temperature not beyond tolerance of the immersion of the hand in it, which is a temperature of one hundred and fifteen to one hundred and twenty degrees, is ordinarily all that is necessary; but in some cases not amenable to treatment by ligature, a temperature above 160° F., the coagulating point of albumen, may be necessary.

The absence of a tenaculum may be well replaced by a small fish-hook secured to a penholder.

For dislodging a foreign body in the œsophagus by forcing it downward, an ordinary carriage or riding whip, knotted far enough from the end to insure the proper degree of flexibility, may be an efficient expedient in an emergency.

Materials for splints for the temporary dressing of fractures can be at almost all times extemporized from the materials of wooden boxes and binders' boards. To dress fracture of the fore-arm and of the leg, in a case required to be removed to a distance from the scene of the accident, I once improvised an efficient dressing by breaking into strips some ordinary palm-leaf fans, which were at hand, and bound them on the limbs. I commend the material for its merits of being elastic and conformable to the shape of the limb. Good temporary dressings can also be made from common straw, cut to proper length and bound in layers on the limb.

For a readily made fixed dressing, a plan I have resorted to is with ordinary sand paper as the material. The sandpaper is dipped into warm water to soften the paper and glue, and it is then applied and retained with a bandage. The glue of the sandpaper soon gives rigidity; body and firmness are produced by the sand and paper. Strong fixed dressing, it should be remembered, can be readily prepared and with the familiar domestic commodities of starch, or with the combination of eggs and flour.

In removing a patient with a fractured thigh or leg, the uninjured limb can be made to temporarily act as a splint and take care of the injured one, by simply bandaging the limbs together. It should be borne in mind that many fractures of the long bones can be well treated without any kind of splints. Fractures of the femur are now generally treated without splints. After coaptation is effected, simple extension, by means of weights, is the only essential. Fractures of the clavicle are, I am convinced from practical experience and much attention to the subject, the most effectively treated by keeping the patient in the supine position of the body, with the head alone slightly elevated, to relax the sterno-mastoid muscle, one of the factors of displacements of the fragments. If this position, on a level mattress, is maintained for only a week or ten days, the tendency to displacements is so overcome that a mere sling for support of the arm and shoulder, or other simple dressing, is all that is necessary.

The simple postural method of treatment, without splints, is applicable to most fractures in the vicinity of joints. In fractures of the upper end of the humerus, splints are usually of no real practical advantage, and the injury can be well treated by position of the arm, and by support against the thorax, maintained by adhesive strips, or bandages, occasionally aided by an axillary pad.



The usual fracture of the lower end of the radius, transverse in direction and produced by a fall on the extended palm of the hand, if properly reduced by longitudinal traction and forced flexion of the wrist and hand, has rarely a tendency to displacement if the wrist and hand are maintained in a state of moderate flexion without the use of any splint.

The ordinary splint, applied on the outside of a fractured jaw, is mechanically inefficient for the object, and has no advantage over an ordinary bandage, or handkerchief, applied to keep the part at rest.

Many surgical instruments are made after traditionally complicated forms. Scalpels, bistouries, and needles should not be crooked. I know of no use for curved knives, and the occasions for the use of curved needles may be limited to a few plastic procedures in cavities. The ordinary surgical needle, with its absurd and inconvenient curve, I long ago discarded in favor of the more efficient, simple and cheap glover's needles. A good surgical needle can be readily made from an ordinary sewing needle, broken off above its point and ground to such an oblique point as is given to the hollow needle of the hypodermic syringe.

A common gimlet is an efficient instrument for opening the mastoid cells, in cases of abscess, when there is grave threatening of cerebral complication, demanding prompt action.

The patient use of a carpenter's rasp may safely substitute the trephine, in cases of fractured skull, by cutting away an angle or edge of bone at the point of fracture, and allowing an elevator, such as a small screw-driver, to be inserted beneath a depressed fragment.

In regard to the traditional forms given to instruments, I have inquired of different instrument makers why the sharp, triangular point is made on the ordinary silver probe, but it remains unexplained. I have never seen any surgeon use this curious bayonet-point of a probe, and know of no possible use for it.

The facility with which rectal injection can be performed with large quantities of fluids, by hydrostatic pressure, renders not essential the use of a syringe, if a piece of India-rubber tubing long enough can be obtained. The lower bowels may be distended, in cases of intussusception by injecting water and carbonic acid gas, forced from the ordinary mineral water bottle or syphon, fitted for the rectal tube.

In cases of violent inflammation and traumatic injuries of the eye, needing immediate use of a mydriatic, the universally present stramonium may well substitute belladonna or atropia.

For antiseptic use many readily-produced substances may well replace carbolic acid. None is so cheap and efficient as that most neglected preventer of putrefaction, sulphurous acid, made simply by exposing water to the fumes of burning sulphur in a close chamber. The antiseptic action of a saturated watery solution of turpentine has also the advantage of convenience, of procurement and cheapness. For this purpose turpentine should be kept continually in water and exposed to warmth, and frequently agitated. Diluted alcohol has merits as an antiseptic which have not received proper attention.

Recent investigations have proved that the bichloride of mercury is the most powerful of all germicides, and that it can be used effectively in unirritating dilutions of one part to two thousand or more of water. These readily obtainable substances prevent the decomposition of animal matters, and, without disputing over the germinal, chemical or other theories of their action, all surgeons must admit that putrefaction is the most common factor in preventing the healing of wounds, and that it should be avoided.—*Polyclinic*.

MILK-SICKNESS.—One of the most interesting papers read at the last meet-

ing of the American Medical Association, was that read before the section on medicine by Dr. W. M. Beach, of London, Ohio, which has since appeared in the journal of the association (Vol I., No. 3). Dr. Beach deals with a disease which is probably unknown, even by name, to many readers.

The disease, as it affects the human species, is known by the name of "milk-sickness." It prevails in many parts of the American continent, more especially in Ohio, Kentucky, Tennessee, Illinois, Indiana, and Michigan; but in other parts, as in New England and west of the great American desert, it seems to be unknown. In the Old World, it has probably never been known.

"Milk-sickness" is transmitted to the human species from the lower animals by the ingestion of the milk, the butter, or the flesh of affected animals. Among the lower animals the disease (in them termed the "trembles") attacks chiefly the young and unweaned animals, but it is by no means confined to these. Wild animals are liable to become affected as well as domesticated animals.

The etiology of the "trembles" is by no means clear, and various theories have been advanced in regard to it. By some the disease is attributed to the ingestion of some vegetable poison, such as *Eupatorium ageratoides* or *Rhus toxicodendron*; others have claimed for it a malarial origin; and others have deemed it due to a specific germ. The specific theory, to which Dr. Beach adheres, seems, on the whole, that most consistent with the facts. But while the nature of the poison remains obscure, there are some well-established facts regarding its behavior. The following are described by Dr. Beach as being unquestioned: 1. The "trembles" are rare in wet, and especially prevalent in dry seasons. 2. The poison especially affects wild and densely-timbered lands, and seems to be unknown in lands freely exposed to the sun's rays. 3. The nature of the vegetation does not influence the prevalence of the disease. 4. The poison seems to be impotent during daylight after the fogs and dews have disappeared.

The incubation period of "milk-sickness" is uncertain. In Dr. Beach's experience, it seems to have varied from about twenty-four hours to a week.

As regards the symptomatology of the disease, the prominent symptom exhibited by animals is, as the name given to the disease indicates, the agitated condition of the muscles. At the onset of the trembles, the animal becomes languid and loses its appetite; soon, trembling of the muscles sets in, accompanied by thirst and constipation; the animal becomes unable to rise, and, in most cases, death closes the scene about the eighth or tenth day.

The symptoms of the disease, as it affects the human subject, are very clearly set forth by Dr. Beach in the following terms:

"In milk-sickness the patient is apathetic, complains of *malaise*, weakness, indisposition for exercise, loss of appetite or loathing of food, and sometimes of slight nausea. This condition may run on for several days, gradually becoming more pronounced, when vomiting supervenes, and the patient finally takes to his bed. There are no chills, no rigors, but usually an unsatisfied thirst. The tongue is large, flabby, tremulous, moist, and heavily loaded with a dirty white coating. The temperature of the surface sinks below that of normal. The skin is dry, and sensible perspiration suspended. The abdomen is retracted and flabby, and comparatively empty. Peristaltic motion seems absolutely suspended; and from that cause, probably, and the general suspension of alimentary secretion, the bowels become, from the first, obstinately and persistently constipated.

"The breath becomes offensive with an odor that some people claim is peculiar to milk-sickness alone. I am led to believe that this may be so, but my observations do not fully confirm me in the belief. The urine becomes diminished, sometimes to eight or ten ounces a day, and generally clear and limpid. The pulse is variable as to frequency, but is always weak and easily com-

pressible, with labored action of the heart and pulsating aorta. The temperature rises in some cases to 99°, but is usually below normal.

“ There is a marked degree of hebetude and indifference, and, even in cases where the patient expresses no hope of recovery, the ordinary solicitude for the future of the family and friends is rarely alluded to.

“ There is an intolerance of covering for the body, especially of the extremities; and I recall one case in which the patient would give no rest to the nurses except when they kept his hands immersed in a basin of cold water; and the ordinary efforts resorted to for warming up the extremities usually are attended with an aggravation of the vomiting or retching.

“ As the disease advances, the exhaustion becomes so extreme that vomiting is superseded by a feeble retching effort, that heard once is to be remembered always.

“ The patient seems to become more and more somnolent; but there is seldom oblivious sleep; and if there ever is, at all, it is of short and fitful duration.

“ The vomiting first, and the retching in the later stages, continues to the very close of life; or until coma and oblivion shut it off.

“ In the later stage, the fluid ejections from the stomach are tinged like the indigo-blueing water used in laundries.

“ These symptoms increase as the disease advances; the hebetude assumes a semi-comatose condition; the respirations decrease in frequency, and are variable—sometimes profound and sometimes scarcely perceptible—like the respirations of a hibernating animal. The prostration sometimes becomes profound, the process of winking suspended, and the conjunctiva and cornea become dry and glazed. The hebetude increases to somnolency, and the somnolency to a coma. There is stasis of the capillaries; the vital forces yield; the patient dies without a struggle.”

In mild cases recovery takes place gradually—there are no characteristic post-mortem appearances. The treatment is the use of stimulants by mouth and rectum, combined with the free use of mucilaginous drinks and effervescing draughts.

SEA-SICKNESS AND ITS PREVENTION. By J. HENRY BENNETT, M.D., formerly Obstetric Physician to the Royal Free Hospital.

In his interesting letter on sea-sickness which appeared in the *Journal* of July 7th, Mr. Kendall mentions various modes of treating sea-sickness, but does not speak of its prevention. From twenty-five years' personal experience, and from that of scores of friends and patients, I think I may say that I have discovered a very simple means of preventing sickness, in most cases, in short voyages. This preventive remedy is merely the ingestion of strong coffee some time before embarking.

I discovered the influence of strong coffee quite accidentally. A quarter of a century ago I was travelling on urgent business from Paris to London, and on arriving at Folkstone found that I had an hour or more to dispose of. I went into a café, and ordered a cup of café noir, the strong black coffee frequently taken on the continent, with sugar only; this cup I repeated. The weather was awful, the sea tempestuous, nothing but dire necessity would have induced me to start, and I expected to be ill in five minutes, being a wretched sailor. To my utter astonishment I remained perfectly well throughout a tedious and very rough passage. Indeed, I think I was the only passenger on board who was not ill. This circumstance made me think that perhaps it was the strong coffee that was the cause of the immunity, and subsequent experience has proven that such was the case. To succeed, however, certain precautions are necessary. The coffee should be taken long enough before embarking to insure its absorption; say one hour if alone with sugar, about two hours and a half if with milk. Moreover,

there should be nothing whatever in the stomach; nothing for the stomach to do. To prevent exhaustion, however, a good easily-digested meal should be taken about four hours before embarking. The coffee, also, should be good and strong, unmixed with chicory, otherwise it produces no effect. If sickness ensue and food be thrown up, the conditions necessary, according to my experience, to secure immunity have not been secured, and the non-success is not a real failure. I consider that an infusion of about an ounce and a half of pure coffee-powder is about the quantity necessary. It should be infused (medicinally) in about four ounces of boiling water for ten minutes, say in a warm mug or jug, poured off and drunk with sugar as *café noir* an hour before leaving, or as *café au lait* (with milk) two hours and a half before. It is best made at home, and put in a bottle to avoid chicory or English wish-wash.

Contrary to the generally received opinion, I do not think that the stomach being full on going on board is a prevention against sea-sickness. In my experience I find that it promotes and causes it. The poor stomach, full of food, buffeted about, refuses to do its work, and in desperation rejects its contents. I have been at sea nearly a hundred times since then; thanks to the coffee, I have scarcely ever been sick on short journeys (under ten or twelve hours), and very many persons to whom I have recommended the plan have enjoyed similar immunity. The influence must be that of a brain and nerve-tonic, which strengthens the sympathetic nervous system and renders it less impressionable to liquid shocks. I have published elsewhere the opinion that sea-sickness is probably due, in a measure, to disturbance of the circulation by the irregular motion, and to its influence on the sympathetic nerves. All the blood in the body is irregularly banged about by the motion of the vessel in a rough sea. Animals at sea for the first time are as ill as ourselves, especially dogs, and it cannot be fear, for on land fear does not produce sickness with them or with us, unless very exceptionally.

On longer journeys, I advise travellers still to take the coffee in the same way, and then to lie down in their berths. The influence of a strong dose of coffee on the nervous system lasts for eight or ten hours. During this time the body may become accustomed to the motion of the ship. They had better, I should say, take no food, either liquid or solid, until the feeling of thirst or of hunger shows itself. For the first (thirst) a mineral water, soda or Apollinaris, with or without brandy or champagne, may be sipped. For the second (hunger) *café au lait*, with or without a little bread, may be taken; and, that agreeing, curry, as advised by Dr. Kendall, could be tried.

In the continued sickness of long voyages, many patients of mine have derived immense, and often permanent, relief from the injection into the rectum at night of 15 or 20 drops of laudanum, in an ounce and a half of warm water, to be retained, by means of a small elastic baby injection ball. If not retained, it can be repeated in half an hour or an hour. Sleep is generally obtained, even in extreme cases; and, during sleep, the body may become accustomed to the motion, as will coffee. Some patients have told me, or written to me, after long voyages, that this mode of emptying laudanum has saved their lives. I have proposed, as have others, the hypodermic injection of morphia; but I have no personal experience of its use, and cannot say whether or not it acts better than the injection of laudanum per anum. When on board ship in short passages, I am generally too fearful of personal sickness to be of much use to others, feeling it prudent to remain perfectly quiescent; and I have not made any very long sea voyages.

Probably strong tea, brandy, wine, indeed any powerful nerve-stimulant or sedative, would have the same effect as coffee if taken in the same manner—that is, sufficiently long before going on board to be absorbed, and to leave the stomach empty and quiescent.

Clearly, the usual non-success of remedial agents taken for sea-sickness is owing to the stomach itself refusing to absorb what is put into it once sickness has commenced. A glass of pure water, instead of being absorbed in a few minutes, will often be thrown up an hour or more afterwards just as it was taken. I have often known chloroform thrown up half an hour or more after its ingestion, perfuming the ship with its odor. The rectum is not sick, and has not lost its power of absorption.

A naval surgeon, who had passed a life at sea, once told me that what he had found of most benefit in confirmed desperate sickness was drinking constantly warm or lukewarm water. A jug of warm water and a glass are placed beside the patient, who is told to swallow half a tumblerful when the sickness comes on. It is immediately thrown up, but easily, and by-and-by calm comes. The real remedy, however, is to stay on land, or to return there, if possible; but the coffee plan, judiciously carried out, has shorn the Channel of its horrors in my case, and in that of many others.—*Lancet*.

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## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—Ed.]

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### MEDICAL SOCIETY OF NEW YORK.

Dr. Stephen Smith read a paper on

#### SEWER GASES.

Sewer gas, said he, has been recognized as a powerful factor in the cause of that large class of preventable affections known as "filth diseases." The writer then spoke of the solution of the question of the prevention of the entrance of sewer gas into dwellings, of the far more important question of ventilating sewers themselves, and of the system adopted by the Department of Public Works for the accomplishment of this purpose. Dr. Smith gave practical illustrations of the evils of the present system of ventilating sewers, that is, by means of perforated covers to the man-holes in the streets. He referred especially to Forty-second street, which is seldom free from the odor of sewer gases, and frequently for days and nights together the odor is so intense as to raise the inquiry of the residents as to the possibility of the odor from the gas manufactory miles distant reaching them. In damp, foggy weather the residents have been obliged to close their windows at night to shut out the foul odors. He thought it very evident that this method of ventilating sewers is in every respect objectionable. Practically it is equivalent to having open sewers running through the streets of New York. There can be no effective method of removing the gases of sewers except by apparatus which is aspirating in its operations. The gases should be drawn out by the action of forces which are constant and altogether independent of atmospheric changes, and delivered into the external air at an altitude which renders it impossible for them to penetrate any room occupied by human beings at any time. The subject above considered ought to receive the attention of the Board of Health. In answer to complaints of citizens, and requests that the nuisances be abated, that body refers to the Department of Public Works. Though the sewers are

managed by that department, yet the Board of Health is not thereby exonerated from obligation to protect the public health against the dangers to life or the detriments to health which the Department of Public Works or any other department creates.

The next part was by the Chairman of the Committee, Dr. S. Oakley Vanderpoel, on

#### THE HYGIENE OF HIGH HOUSES.

The committee protested against the erection of high buildings from a hygienic point. First, with reference to the inmates. Since the inception of this question in building no general epidemic, such as all large communities are liable to, has occurred. Isolation of the sick in all such maladies is a prime factor to prevent spread of the disease. In the buildings constructed having so many families, such isolation would be practically impossible. Either through necessary attendance, contaminated clothing, or currents of air, the epidemic poison would be carried to every occupant, and the persons now eager to secure apartments therein would be as anxious to desert them. The families in the first three stories are to a great degree deprived of sunshine. The importance of this to the thickly-denized population can hardly be overestimated.

So much of the surface of the lot is occupied both for obtaining room and to give solidity to the high walls, that it becomes necessary to resort to every expedient to procure the necessary circulation of air and ventilation. Chief among these are the air-shafts running from the bottom to the top of all such houses. Into these, windows open either from the inside rooms, or these windows may serve as ventilators to water-closets and bath-rooms. While the houses and plumbing are new no unpleasant effects may follow this procedure, but, as experience has too often shown, defective plumbing in any of the lower stories will allow miasm to be wafted to every story above through the open windows upon these shafts.

For economical reasons, most of the closets and bath-rooms are placed upon one line of piping. Should typhoid fever, or possibly cholera, occur in the lower stories, and any defects exist in the traps above, the poison would contaminate the apartments so exposed.

Second.—Their influence is more baneful upon the surrounding property and streets. Opposite and adjoining houses receive no direct rays of sunshine. The streets remain damp, and of necessity more or less filthy. This constant dampness and lack of sunshine is more or less pernicious. All methods of disinfection and destruction of disease germs depend upon the active oxidizing effect of the material employed. In our streets, next to cleanliness, the most important factor in oxidation is the sun's rays.

These evils are not confined to the residents of the high buildings, but to those also on the opposite side of the narrow streets. Private houses, before cheerful and healthy, become gloomy and unhealthy. Fictitious currents of air are established, which not only make smoking chimneys, but may reverse the currents from the underlying pipe from the roof connecting with the soil pipe. While apartment houses in our crowded population with limited area may be a recognized necessity, a limit of height, regulated by the width of the adjoining street, should be required as a sanitary necessity.

#### ADDRESS OF THE RETIRING PRESIDENT.

Dr. David Webster then addressed the Society, making brief reference to the work which had been done during the past year in the way of prosecuting illegally qualified practitioners. He was also pleased to be able to note that

during the year a new interest had been aroused in scientific work. More scientific papers had been offered than the limited number of meetings of the society could receive, and the average attendance of the meetings had increased. Notwithstanding the large increase of members, there is still room for missionary work in that direction. Since the law of 1880 went into effect it has been the rule of the Comitia Minora to recommend for membership none but legally qualified practitioners. This rule has debarred several excellent physicians who, having graduated at medical colleges without the State, and not having joined the County Medical Society before the law went into effect, could not become legally qualified without having their diplomas endorsed by the faculty of some duly chartered medical college within the State. These gentlemen have objected to the trouble and expense of getting their diplomas endorsed, and though they have registered at the County Clerk's office, are still practising illegally.

Dr. Webster then read the names of the members who had died within the year, and referred to their work and the influence which they exerted. In conclusion, he thanked the society for the uniform courtesy extended to him while serving it as president.

The Secretary read the resignations of Drs. J. H. Low, M. B. Dubois, W. Thurman, J. C. Lay, and Austin Flint, Jr., which were accepted.

The annual meeting then adjourned.

THE PREVENTION AND TREATMENT OF PUERPERAL FEVER. By T. GAILLARD THOMAS, M.D., New York. Abstract of paper read before the New York Academy of Medicine, December 1883. (*N. Y. Record*).

Dr. Thomas said his motive for presenting the paper was involved in the fact that the plan of treatment of puerperal fever which he should advocate had not been anywhere fully elaborated, or in any single essay carefully systematized. Indeed, the general principles of the plan of treatment had not been universally accepted as orthodox, and the question of intra-uterine antiseptic injections for the cure of puerperal septicæmia was one which would still come up for discussion. While the paper contained nothing which had not been elsewhere as fully and as clearly stated, and nothing which had not already received careful investigation at the hands of progressive obstetricians, the author hoped that on account of his large experience, the presentation of his estimate of the method might prove of some value. At the annual meeting of the American Gynæcological Society, held four years ago, the subject of intra-uterine antiseptic injections for the cure of puerperal septicæmia was up for discussion, and with a single exception he stood alone in its advocacy. Furthermore, he was among the very first, if not the first in this country, who adopted this method, together with early cutaneous refrigeration in the treatment of this disease. Among all the advancements which have been made in obstetrical medicine he regarded none as more important or more signal than that relating to the prevention and cure of the febrile conditions incident to the puerperal state. Brief reference was then made to the views which have been entertained concerning its exact nature, such as a fever due to suppression of the lochia, inflammation of the uterus and peritonæum, specific puerperal fever, uterine wounds, arrest of the process of formation of milk, the doctrine of the multiplicity of puerperal affections grouped under one name, and the doctrine of puerperal blood-poisoning, etc.

Dr. Thomas then directed attention to the condition of the blood in the puerperal woman, first, being favorable to the development of thrombus, and, second, the existence of a tendency to prove most prolific ground for sepsis and zymosis. Besides this, the nervous system is in a plus state of excitement and sensitiveness. With this general condition there existed several local conditions which result from parturition. Before enumerating these, he briefly allu-

ded to the normal condition of the lymphatics, the bloodvessels, and the uterine tissue, and then described the appearances, as could be seen forty-eight hours after delivery. Outside all looks very well, the uterus is simply much larger than the non-pregnant womb, but the inner surface has an unhealthy, diphtheritic look, although free from exudation. There is a large raw, irregular placental site, and small clots can be seen which cover the mouths of the uterine sinuses. The odor from this surface is disagreeable. On examining the cervix uteri there may be found two or three small lacerations, and, in consequence of these, with absorption through them of irritating lochial discharge, the cervix is swollen and œdematous. Examining the vagina, it is found that in two or three places a superficial rupture of the mucous membrane of this canal has been produced. The vulva also presents several solutions of continuity, the fourchette has been torn through, and this rent has extended perhaps through a small portion of the perinæum, and one or two small fissures have occurred in the mucous membrane covering the ostium vaginae.

Material taken from these surfaces at this stage of the puerperal state, and introduced by inoculation, will give rise to more or less irritation and lymphangitis, but it is not sufficiently poisonous to give rise to erysipelas or angioleucitis. And yet, what are the results of parturition? Recovery is the universal rule unless some unusual occurrence manifests itself to prevent this consummation. Notwithstanding the existence of all these circumstances, which are best calculated to insure a bad result, only one or two of one hundred parturient women die when properly cared for, even in public hospitals.

But now and then all this is changed, and some poison gains access to the genital canal, and acts as rapidly and decidedly as a little yeast added to dough, and striking and alarming phenomena develop, spread, and progress steadily toward a fatal issue. At the morning visit the physician leaves the patient with a normal pulse and temperature, and in an apparently favorable condition. A few hours only may elapse when the patient has a scarcely perceptible chill, with some pelvic pain, the lochia ceases, the milk has disappeared, she suffers from severe headache, a look of indescribable anxiety is upon her face; she has a pulse of 120, and a temperature of perhaps 104° F. The poisonous element has reached the genital tract and the result is already manifesting itself. Suppose, now, that the physician remains inactive, or relies upon medicines given by the mouth which are supposed to exercise some control over this poison, the local conditions in the meantime which favor its admission remaining unchanged. The lymphatics are active, lymphangitis follows, cellulitis, and peritonitis develop probably, and what was originally a septicæmia will emerge into one of those affections which have been grouped under the general name puerperal fever, and pass through all its attendant phenomena.

#### PATHOLOGY.

At this point the author of the paper proceeded to the consideration of the pathology of puerperal fever, and defined it as a puerperal septicæmia. It matters not whether it assumes a form of phlebitis, cellulitis, lymphangitis, or peritonitis, the essence of the disorder is absorption of poison into the blood of the parturient woman through some solution of continuity in the tissues of the genital tract. As had been well described by Lusk, puerperal fever is "an infectious disease, due, as a rule, to the septic inoculation of the wounds which result from the separation of the decidua and the passage of the child through the genital canal." In other words, he accepted the definition given by Hervier as long ago as 1870, who defined this disease to be "a multiplicity of affections produced by puerperal poison."



## NOMENCLATURE.

Concerning nomenclature, of late an effort has been made by the Dublin school of midwifery to supplant the old term puerperal fever by the use of the word "metria." Dr. Thomas hoped the suggestion would not be adopted, as the word metria does not convey any more accurate idea of the pathology to the mind of the student than does the old term. Of the two terms metria is more objectionable than puerperal fever. On the other hand puerperal septicæmia conveys a definite and clear idea, which appears to be in accord with the truth as taught us by modern pathology, and it should be adopted despite the fact that it is far from being absolutely perfect.

Dr. Barnes had proposed to use the word in its comprehensive sense, employing it to mean that "the blood of the puerpera is poisoned," and Dr. Thomas was willing to admit this, although he believed in the existence of a specific poison which acted as surely as does a specific poison in the production of typhus or of small-pox. As to the exact nature of the poison we are not yet able to say; nor are we able to say what the exact nature of the poison is in most, if not all, the infectious diseases. German pathologists declare that the round micrococci especially are important factors in the etiology of this group of affections, but this point in bacterial pathology is too unsettled to permit of its introduction into such a paper as the present one. But even if we do not know what the nature of the poison is, we surely know that some such toxic agent exists, and it behoves us to inquire how it can be best destroyed, or how its life and activity can be best counteracted if it gains admission despite our care and watchfulness. There are only two methods by which it can reach the parturient tract. First, it may be carried into the vulva through the atmosphere; and second, it may be carried to any part of the genital tract by the fingers of the doctor or nurse, towels and cloths laid against the vulva, sponges, and instruments, and by bed and body clothing coming in immediate contact with the genital organs. Dr. Thomas then addressed his remarks to cases occurring chiefly in private practice, because even among the wealthy there is a laxity of system and a carelessness with regard to preventive measures which borders closely upon criminality. It is the duty of every practitioner to guard his patient against puerperal septicæmia by every means in his power.

## PROPHYLACTIC MEASURES.

1. In all midwifery cases, whether in hospital or private practice, the floor and ceiling of the room in which the woman is to be confined should be thoroughly washed with a ten per cent. solution of carbolic acid, or a bichloride of mercury solution, one to one thousand. The bedstead and the mattress should be sponged with the same solution. All curtains and upholstery should be dispensed with.
2. The nurses and physician should take care that all their clothing is free from exposure to the effluvia of septic infection, such as typhus, erysipelas, septicæmia, scarlet fever, etc., and if there has been any exposure in this direction all the clothing should be changed and the body should be thoroughly sponged with a saturated solution of boracic acid.
3. As labor sets in the nurse should thoroughly wash her hands with soap and water, removing the dirt from under the nails, administer an antiseptic vaginal injection, repeat it every four hours during labor, and keep a napkin wrung out of the antiseptic solution over the genitals until the birth of the child.
4. Both doctor and nurse should wash their hands thoroughly with soap and water, and scrape the nails, and afterward soak their hands for several minutes in a solution of bichloride of mercury (1 to 1,000).
5. The third stage of labor should be efficiently produced, all portions of

placenta should be removed, and ergot administered in moderate doses three times a day, to be kept up for at least one week, to secure complete expulsion of the clots and closure of the uterine vessels.

6. The doctor should take nothing for granted, but at the conclusion of labor should carefully examine the vulva of the patient. If there is any rupture of the perinæum it should be closed at once by suture, and if slight lacerations are found they should be dried thoroughly with a cloth, and equal parts of a saturated solution of carbolic acid and persulphate of iron applied, and again the surface dried with a cloth and painted over with gutta-percha collodion.

7. Within six or eight hours after the termination of labor, syringe out the vagina with an antiseptic solution, and introduce a suppository of cocoa butter containing from three to five grains of iodoform.

8. The vaginal injections should be repeated every eight hours. But in all cases of difficult labor, and in those in which instruments have been employed, they should be administered twice as often, and kept up at least for ten days. The nurse must wash and disinfect her hands before *every* approach to the genital tract of the woman.

9. Employ a new gum elastic catheter which has been thoroughly immersed in an antiseptic fluid each time the bladder is evacuated, rather than trust the nurse to cleanse an old silver catheter.

10. The physician must inform himself *by personal observation*, as to the competency of the nurse, with regard to the use of the catheter, the administration of the vaginal injections, and the introduction of the suppositories.

It might be objected that so many details with reference to the lying-in woman are unnecessary, because of the enormous preponderance of cases in which complete recovery ensues without such treatment, and that to introduce them savors of the performance of some grave surgical operation. So much the more did Dr. Thomas urge them on this very ground, because he believed that the woman who is to bring forth should be treated as though she is to go through a capital operation.

At this point Dr. Thomas made a strong protest against the use of intra-uterine injections as a prophylactic resource, except after very severe operations in the uterine cavity, which rendered the occurrence of septicæmia almost certain.

But suppose that despite all these precautions the poison has entered, what are the most reliable means for checking the advance of the septic disorder? He did not believe there is any specific disease germ which gives rise to puerperal septicæmia. It is probably the same cause which gives rise to septicæmia in the stump after an amputation, or after a wound with compound fracture, or in the lacerated tract after gunshot wound.

A portion of retained placenta or membranes does not give rise to true puerperal septicæmia, but rather to a toxæmia. If the mere presence of decaying material would produce septicæmia without the agency of a specific disease-germ, the disease would develop in healthy country localities.

As soon as the patient is stricken by the poison, certain morbid phenomena develop themselves, such as chill, high temperature, pelvic pain, mental disturbance, headache, pain in the back, and sometimes, though not commonly, nausea and vomiting.

#### TREATMENT FOR THE CURE.

*First.*—As soon as the diagnosis is determined upon, all pain and nervous perturbation should be allayed by hypodermic injection of morphine, unless there is some special idiosyncrasy in regard to opium, and throughout the attack, whether suffering in mind or body, the hypodermic use of morphine should be repeated sufficiently often to allay it. In this particular case the

drug should be used hypodermically, and special care should be taken to use a clean syringe, dipping the needle before its use into a solution of bichloride of mercury (1 to 1,000), which will prevent the formation of abscess.

*Second.*—Being relieved of pain, spread an india-rubber cloth over the edge of the bed, making it fall into a tub of water rendered antiseptic by the use of carbolic acid (two and one half per cent.), or bichloride of mercury (1 to 2,000). Then move the patient very gently across the bed, place a pillow under the head, allow each foot to rest upon the side of the tub, and cover with blankets. Then introduce either a Chamberlain glass tube or a Lyman metallic tube, very carefully guided by the index finger, passing it up to the very fundus of the uterus, attach a Davidson syringe, and throw a stream of water with gentle force against the lining membrane of the organ. If there is any suspicion that there remain attached portions of placenta or membranes, they should be carefully removed, using the finger nails as a curette, as advised by Dr. Wilson, of Baltimore.

There are dangers attending the administration of these injections: first, the entrance of air into the uterine sinuses; second, the production of hæmorrhage; third, the danger of forcing fluid directly into the general circulation through the injection tube into the mouth of the sinuses; fourth, convulsions and violent pain, which produce a sudden and baneful influence upon the nervous system, and fifth, the passage of fluid into the peritoneal cavity through the Fallopian tube. All of these may to a very great extent be avoided by careful attention to details. By the use of a large tube, with water not less than 100° F., and using only a moderate degree of force, proceeding gently, cautiously, and slowly, these dangers can be avoided. The tube should not be allowed to fill the os internum or externum completely. If after the use of the injections it is found that the cervical canal hugs the tube too closely, it should be dilated before further injections are practised, and this may be done by the use of either the hard rubber or Barnes' dilators. If hæmorrhage occurs, persulphate of iron should be added to the antiseptic solution and ergot administered.

The frequency of the administration of the intra-uterine injection should be varied greatly with individual cases. In moderate cases, where the temperature falls readily, only once in five hours may be all that will be required, while in other cases they may be required every three hours, and in bad cases they may be administered as often as every hour. These injections should be administered by the physician always, and should be carried up to the fundus uteri, and every precaution exercised concerning detail. Dr. Thomas favored the intermittent stream. For a number of years he entertained the idea that the continuous flow was most desirable, but on that point he had changed his opinion entirely. Continuous irrigation he regarded as a delusion and a snare. For vaginal irrigation it is an excellent method; nevertheless, in severe cases he preferred to employ continuous irrigation and use the intermittent stream every three hours rather than exhaust the patient by the use of injections as often as seemed desirable. At all events, that plan is best which best cleanses the parturient canal.

*Third.*—Control the temperature by the use of Townsend's rubber-tube coil, placed over the entire abdomen, from the ensiform cartilage to the symphysis pubis, with ice-water flowing through it. In his service at the Woman's Hospital this means of controlling the temperature is as commonly and freely used as are gargles for diseases of the throat, and thus far no ill-effects had been produced, either in the way of chilliness or by the development of complicating diseases, such as pneumonia, pleurisy, etc. Formerly he relied upon Kibber's cot for the same purpose, but had found the coil much more convenient.

*Fourth.*—Keep the nervous system under the influence of quinine, fifteen

grains night and morning, or Warburg's tincture administered in capsules, according to the recommendation of Dr. John T. Metcalf, or by the use of salicylate of soda.

*Fifth.*—The diet should consist of fluid food, and the staple article should be milk, but animal broths may be alternated with it.

*Sixth.*—Efficient and abundant assistants. Two nurses are necessary, one for night and the other for day, and at least one extra physician as an assistant, in order to carry out this method of treatment effectually.

In regard to the antiseptic substances used, they have been thymol, boracic acid, salicylic acid, carbolic acid, and bichloride of mercury. The last two are the best, and the bichloride seems to be about to supersede the carbolic acid, and for intra-uterine injections it should be used in the strength of 1 to 2,000.

MONTGOMERY COUNTY, ALABAMA, MEDICAL SOCIETY MEMORIAL MEETING, Nov. 29, 1883.

At a memorial meeting of the Medical and Surgical Society of Montgomery County, held in the rooms of Dr. S. D. Seelye, the following preamble and resolutions, expressive of the sense of this Society regarding the death of the late Dr. J. Marion Sims, were adopted :

Your committee appointed to report suitable resolutions expressive of the sense of this Society regarding the death of Dr. J. Marion Sims, beg leave to report as follows :

When a great man dies his death is not merely a grief to his immediate family and personal friends, but the great world in which he has acted feels his loss, and stops in its busy life to express its sense of bereavement. Particularly is this so when that life has been spent in efforts to relieve human suffering, and thus add to the sum of human happiness. A warmer emotion actuates them, the heart throbs more quickly, the tear of sorrow starts to the eye unbidden, and a sense of personal loss mingles with the general grief. But with the members of the Medical and Surgical Society of Montgomery County not only is our grief at the death of Dr. J. Marion Sims a part of the general sorrow : he was nearer to us than to the world at large ; endeared to most of us by delightful personal acquaintance, and to a few of our members by years of fellowship and brotherhood in the practice of his profession here.

In the resolutions which we pass to-night we express not only a mede of honor to a great man, but our heartfelt sorrow at the loss of one personally endeared to us ; therefore

*Resolved*, That in the death of J. Marion Sims, an honorary member of our society, we feel the deepest personal and friendly grief, as well as a deep sense of his loss to our profession and to the world ;

*Resolved*, That with our grief mingles also thoughtfulness to the Giver of All Good for the long life of usefulness accorded to him, and for the gentle loosening of the vital cord at the end of a life well lived ;

*Resolved*, That, as a society and individually, we tender to his sorrowing family our most hearty and earnest sympathy in their bereavement ;

*Resolved*, That the minutes of this meeting be entered on our record as a memorial, and the pages bordered with black ; and that a copy of the same be furnished to the family of our deceased brother, and also published in the *Montgomery Advertiser*.

S. D. SEELYE, M.D.,	} Committee.
W. O. BALDWIN, M.D.,	
R. F. MICHEL, M.D.,	
J. F. JOHNSTON, M.D.,	

## MEDICO-CHIRURGICAL SOCIETY.

IN a paper in the Medico-Chirurgical Society's Transactions, read on "The Solvent Treatment of Urinary Calculi," Dr. W. Roberts, of Manchester, came to the conclusion that potash carbonate dissolves uric acid more rapidly than the soda salt. This he ascertained by placing sections of uric acid calculi in phials, and causing currents of the different solutions, at blood heat, to pass over them at a regulated rate. He also found that the strength of the solution employed was of much importance, the greatest amount of solvent power being exhibited in solutions containing from forty to sixty grains of the alkaline carbonate to the imperial pint (twenty fluid ounces). Below this strength the power of the solutions gradually declined, until, with those which contained less than three grains to the pint, the solvent power scarcely exceeded that of water. On the other hand, if the strength was above sixty grains to the pint, the pieces of the calculus became incrustated with the alkaline biurates which were then deposited, and thus the further action of the solution was impeded. This was especially noticeable when the strength of the solutions was much above 100 grains to the pint. Even without the actual experiment with pieces of uric calculi, I think we could predict that potash would prove a more powerful solvent than soda; for we have only to glance at the table to see that urate of potassium requires, at the body temperature, only 500 parts of water to dissolve it, whereas the corresponding soda salt takes as much as 1,130 parts. The soda salt certainly has an advantage in its greater neutralizing power, but not sufficient to make up for the far less solubility of the resulting urate. In the paper referred to, and in his book on "Urinary and Renal Diseases," Dr. Roberts has the following foot note: "Some experiments were also made with carbonate of lithia, which has been vaunted in recent times as a solvent for uric acid. Its power was found much inferior to that of carbonate of potash and soda. Its reputation seems to have been gained through its comparative insolubility. Only weak solutions of it could be employed." I refer to this passage because other authors have evidently been influenced by the statement; for example, Sir Henry Thompson, in his little work on "The Preventive Treatment of Calculus Disease," says: "Doctor Roberts finds carbonate of potash to be the most powerful solvent; better than soda, much better than lithia."

But I think that lithia salts are far more powerful solvents of uric acid than potash salts, while these latter are more efficacious than those of soda. We have only to take three small phials, filled with a solution of the three carbonates, of the same strength, and to put into each the same quantity of small uric calculi, the amount being such that the lithia will dissolve them. If we carry these in a warm pocket, after a short time it will be seen that all the calculi have disappeared from the lithia solution, while more than half are left undissolved by the potash, and about four-fifths by the soda solution.

I have been informed by some patients that they have been deterred from using lithia salts, although they had found them valuable, by having been told that their employment would prove injurious, owing to their caustic effects upon the renal organs. In answer to this objection I may say that I have found the action of carbonate of lithium to possess less destructive power than the corresponding salts of potash and soda upon animal tissues.

The only effect that I have ever noticed has been that, when the quantity is increased beyond a certain amount, a little tremor of the hands is produced, which passes off at once on the diminution or omission of the dose of the salt. I have known patients, of their own accord, continue the use of lithia salts for more than ten years, with the effect of entirely preventing the recurrence of the symptoms to remove which they were first prescribed, and without the production of any injurious effect. For myself, I have not the least doubt as to the

value of lithia salts as therapeutic agents, and am convinced that, by their employment, depositions of uric acid in the renal organs can to a large extent be prevented. Free dilution and administration on a fasting stomach are points of much importance, which should be attended to in the administration of alkaline remedies. I have been much in the habit of using potash with lithia, in the form of the citrate or the carbonate; the former to give neutralizing, the latter to increase the solvent power.

I do not believe in the value of any injections into the bladder in the treatment of vesical calculus; at the very best, the process must be most tedious; and at the present day, when the surgery of the subject has reached to such great perfection, when a calculus can often be removed completely from the bladder in a few minutes without the use of the knife, I cannot but think that the surgeon is better qualified for the treatment of such cases than the physician.—*Lancet*.

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## SANITARY DEPARTMENT.

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ON THE ADVANTAGES OF LOW CEILINGS IN SMALL HOUSES. By JOHN HONEYMAN.  
Read at the Sixth Congress of the Sanitary Institute, Glasgow, September, 1883.

The height of the ceiling affects both the owner and occupier of a dwelling, but chiefly the occupier; for whereas it affects the owner's pocket only, it affects both the pocket, the comfort, and the health of the occupier. If the owner is perfectly free, he will simply adopt the height of ceiling which he thinks will enable him to get the largest return from his property. It by no means follows that he will adopt a low pitch. He may think that high ceilings will make his houses more attractive; in certain circumstances yielding higher rents, or at least securing a better demand or a better class of tenants. But if the ground he builds upon is dear, and the demand for houses great, he will be tempted to make the stories low, and increase their number; and in so doing he will be doing what is at once best for himself, and also—unless he makes the rooms small as well as low—what is best for the community.

But in most of our large towns and populous places a person about to build is not free. He must build in conformity with regulations limiting the total height of his building, and prescribing, among other things, the height of ceilings, and the cubic capacity of rooms. Hampered by such restrictions he cannot suit his houses to the requirements of the districts where they are wanted; he must make them as Parliament has been pleased to prescribe, however extravagant or unsuitable for the people who require them, and he must get a profitable return for his expenditure from these very people who do not wish extravagance, and cannot afford to pay for it, but who in the circumstances either must pay for it or do without dwellings. For example, if the Police Bill drafted by the Corporation of Glasgow became law, a man having land bounded by a new street forty feet wide would not be allowed to erect a tenement of dwellings in that street more than two stories high, with this necessary result—that his return for the cost of land and buildings must be got from two tenants instead of from four or six. If left to his own discretion he would, at a small additional outlay, make his buildings, say, four stories high, and—profitably to himself—accommodate on the same ground twice the number of tenants at lower rents. Now, assuming in the meantime that the four houses erected in this way were as good as the two made in conformity with the Police Bill, it must be perfectly obvious that, whether the owner made more out of the transaction or not, the erection of the

four would be distinctly most advantageous for the tenants, and therefore for the community at large; because in this way twice the number of people would get accommodation where they want it—not where the Corporation say they ought to want it—and they would get it at a greatly reduced rent; both, I submit, considerations of the very greatest importance, and having a direct bearing on sanitary questions of great interest. Of course, if it could be proved that high ceilings and low tenements were essential to secure healthy conditions, a great deal could be said in favor of compulsory sanitation in that direction, although even in that case I should be prepared to say a great deal against it; but it has been abundantly proved—and this was very clearly brought out at the Newcastle Congress—that there is no necessary connection between density of population and a high death-rate; and, I may say, that the very same statistics—namely, those of the various improved dwellings' companies—which most conclusively prove this, as conclusively show that there is quite as little connection between low ceilings and a high death-rate; as in all these dwellings the ceilings are low and the stories numerous. Most people, however, in this part of the country, at all events, I may venture to say most sanitarians, still cling to the idea that—*ceteris paribus*—a room with a high ceiling is a more healthy dwelling than one with a low ceiling. Now, I wish to strike at the root of this prejudice, which, as affecting legislation, has had and may, unless eradicated, still have most pernicious results; and I hope to be able to prove that, other things being equal—that is, that, given two rooms of different heights, but of the same capacity, having the same size of chimney opening, the same area of window, door and vent openings, the lowest will be the cheaper, the more commodious, the more comfortable, and the healthier dwelling of the two.

I shall dwell chiefly on the sanitary aspect of the question, merely devoting a sentence or two to the other important points I have mentioned. One of these, the greater extent of floor area in a low than in a high room of the same capacity, is self-evident, and the advantage of this to the occupant is equally obvious. The economy of the low pitch is not quite so readily understood. For the sake of illustration, I have calculated the rents which must be charged for houses of 2,000 feet capacity, in order to yield five per cent., arranged in three different ways—first, in tenements of two stories of ten feet; second, in tenements of three stories of eight feet; and, third, in tenements of four stories of eight feet; allowing a proportionate area of vacant ground in each case; and I find that in the first of these—the two-story tenement—the rent would require to be £9 6s., in the three-story tenement it would be £8 5s., and in the four-story tenement, £7 14s.; so that the artisan contented with an eight feet ceiling might have a roomier house for £7 14s. than he can possibly get for less than £9 6s., where restrictions, already referred to, exist. In other words, he is compelled to pay £2 8s. per annum, or fully a third more than might otherwise be required, and at the same time he must be content to occupy a smaller house in a less convenient locality, without one solitary compensating benefit, merely because some sanitarians, chiefly municipal, think such treatment good for him. To my mind it is unmitigatedly bad, and a very serious matter for our working classes. For observe, it is impossible to take this £2 8s. out of the owner's pocket, the tenant must pay every penny of it, as, of course, no builder in his senses is going to put up dwellings which will not yield him five per cent. at least.

But the important question remains—would the low house be healthy as well as cheap and roomy? In my opinion it would, and in a greater degree than the high house. The means of ventilation, which alone are admissible in such dwellings, being of the simplest possible kind, it will be found that it is easier to ventilate a low room than a high one by their agency. Practically, the ventilation must be effected by the admission of fresh air by the doors and windows (or round these when closed), through the badly-fitting joints of floors and

skirting-boards, or by special inlets not intolerable to the inmates (if such can be devised), and the extraction of air by the chimney. Such means have been found sufficient, except where apartments are overcrowded—that is, except where the chimney is insufficient as an extractor. We may take it that in any room having a door, a window and an open fireplace, three or four people may sleep safely, and the condition of the air will depend not so much on the capacity of the room as on the area and draught of the chimney. Those who are familiar with the subject will, I trust, excuse me if I say, for the information of others in this mixed audience, that even such a capacity as is prescribed in our Police Bill (400 cubic feet to each adult) is utterly insufficient, unless we have along with that a constant and rapid change of air. But to effect this change, so that the whole volume shall be kept up to a safe standard of purity, it is necessary that fresh air should be properly distributed, and permeate the whole apartment. This point, I fear, is sometimes lost sight of. For example, if we take a room of 2,000 cubic feet, with five inmates, to keep the air, not as pure as we could wish, but in a tolerably healthy condition, at least 5,000 cubic feet of fresh air would require to be passed through the room per hour; and as an ordinary open fire will easily extract that quantity, there seems to be no great difficulty about it. But, observe, it is quite possible to pass all that quantity through the room without purifying the atmosphere in any appreciable degree; we may let it all in at one side of the room and up the chimney at the other, leaving the air breathed by the inmates impure and poisonous, perhaps fatally so; the more complete the distribution of the fresh air, the more beneficial will the ventilation be. Now, the facility of distribution will depend, to a large extent, on the form of the room. If the room (always bearing in mind that we are speaking of rooms of the same cubic capacity) be high in proportion to its area, and the fresh air be admitted in the usual way referred to, the lower part only will be ventilated, and a large proportion of its atmosphere will remain impure; whereas, if it be low in proportion to its area, it will be well ventilated, and the inmates will get the full benefit of the room's capacity. In the other case they would not, as a considerable proportion of the high room would remain stagnant and foul, a condition objectionable on other grounds.

But, it may perhaps be said, granting that the air in the upper part of the room, say a fourth of the total volume, remains unaffected and that the 5,000 feet per hour allowance is distributed in the lower part only, is that not exactly where the fresh air is wanted? Certainly, but fresh air is not *the only thing* that is wanted in an artisan's house. Warmth and freedom from draughts are only second in importance, if, indeed, they are second. There are delicate women and tender babes to be considered as well as robust men, and our mortality tables painfully remind us of the fact that that consideration is far too much overlooked. No doubt by the passage of a given quantity of air through a room you can make a part fresher than the whole, but it is evident that as you reduce the part affected you necessarily increase the velocity and lower the temperature of the current; indeed, you can without difficulty carry this reduction so far that, with the aid of a good-going fire, you may obtain a very high standard of purity and a cold draught, of perhaps 150 feet per minute, in the only habitable part of the room, that is, the only part where the air is fit to be breathed. Our object, of course, must be to make every part of a room habitable, and to leave not one stagnant corner in it. In this way alone can we secure in the highest degree both essentials of a healthy dwelling—pure air and warmth. Now, we shall find that the lower the ceiling the more easily can this combination be secured.

Let us look a little more particularly at the superior facilities offered by the low room. The top of the door, from which I think the greater part of the air required should come, is necessarily near the ceiling, and the current will there-



fore completely disturb the upper stratum of air. The air from the window will have the same effect in a smaller degree, and both currents will be warmed by contact with the ceiling. We need never look to the floor as an air-warmer, except to a limited extent near the fire; a much larger area of the ceiling is heated, and in a low room there is not only a much larger area of ceiling to heat than there is in a high room, but the radiant heat upon it being more intense, it becomes an air-warmer of immensely greater power; and, obviously, this extra power in a low room can be used either to raise the temperature of the room, or to raise a larger supply of air to the same temperature. Besides, if in this way we are able to admit more fresh air near the ceiling, we shall also, in like proportion, be able to reduce inlets at a lower level, and to that extent get rid of cold draughts. Practically, the quantity which can safely be admitted is limited by the means of warming it; the more we can warm, the more we can safely admit. I insist very much on the importance—the absolute necessity—of this heating in connection with the ventilation of small houses. Some people seem to think that hot air and foul air are synonymous terms; it would be much more correct to say that cold air and foul air are synonymous. If the fire burns up, and the room becomes overheated, the window will soon be opened, and even if the atmosphere remains warm it will be wholesome; but where the fire burns low, as the winter evening closes, and the ill-clad mother clasps her suffering infant to her breast for warmth rather than for nourishment, what wonder if we find the air close and impure, and every inlet and crevice stopped with what we are pleased to call “perverse ingenuity?” If we wish the occupants of small houses to admit plenty of fresh air we must not only convince them that it is good for them, we must show them how to do it without sacrificing something else which is good also—which is even better in their estimation—namely, comfort.

In conclusion, I desire earnestly to invite the attention of Scotch local authorities to this subject. It is clear that if I am right in the views I have advanced—if it is the fact that from a sanitary point of view a low ceiling is as good as a high one—much more if it is better—municipal authorities are utterly wrong when they prevent by legislation (as some have done, and others wish to do) the erection of low-ceilinged houses. It simply comes to this, that by such regulations they wastefully increase the rents which the working classes must pay for house accommodations, and thereby in the most direct manner encourage over-crowding, with all its attendant evils; while at the same time they effectually prevent the erection of improved dwellings, such as are now common in London and elsewhere in England. Within the last few weeks I have seen in a street twenty feet wide an admirable tenement of artisans' dwellings seven stories high. According to our draft Police Bill, the height would have been restricted to one story—one family only would have been allowed to dwell where it has been proved to demonstration that seven can be housed with much more comfort and much less expense. Surely it would be difficult to imagine a more striking illustration of the mischievous effect of misdirected sanitary zeal.—*Sanitary Record*.

THE GENESIS OF FILTH, ESPECIALLY IN STABLES. An open letter from Professor MUCKSLEY, F.R.S., to Dr. John C. Peters.

*Editor of The Sanitarian*—DEAR SIR: Although a stranger to you personally, I am well acquainted with yours and Dr. Peter's writings and opinions. I have formed the belief that you are very moral and tidy medical men, who hate all moral and physical filth, and are also greatly puzzled at their occurrence at all. Like the little boy who was asked to name the points of the compass, and replied: North, South, East, West, and up and down, you, when asked about the causes of disease, invariably answer: Heat, cold, dryness, moisture, filth,

and malaria, or bad air. You look upon filth as the greatest, or the up and down of all these; the "very-evil" or "Deevil," and it is; and you ask, "wherefore is this thus?" How would it be, if before the "Fall of Man," and of the apple, when lions and lambs lay down peaceably together, and war was not, and Cain had not killed Abel, and death, decay and filth were unknown; if the whole internal economy of animals and men were very different from what they now are, and what they must have been when Noah and his family were together in the ark, for 197 days, with pairs of every living thing, two of a sort, male and female, of beasts, clean and unclean, cattle of every kind, and fowls and birds after their kind, and every creeping thing of the earth.

The ark, you know, was three stories high, and had only one door and one window, which hermetically closed; there was no ventilation, and there was no filth. There was no typhus fever from overcrowding; no typhoid fever from fæcal-filth; no malignant sore throats or diphtheria from impure air; no scarlet fever, even among horses, or measles among pigs from irritation of the skin or impurity of blood; there was no relapsing or famine fever, and no malarious or bad-air diseases of any kind. Their lungs may have exhaled pure and fragrant oxygen, hydrogen and nitrogen; hence, they not only required no water, but for food, like the plants, consumed all carbonaceous products, so that there was no refuse of carbonic oxide, nor carbonic acid gas; much less any sulphuretted or phosphuretted hydrogen, or putrid albuminoid ammonia, or disagreeable sulphide of ammonia, which comes nearer causing typhoid fever than any other known substance, gaseous or cosmic. Their stomachs, bowels, livers, kidneys, etc., of course were as idle as Dr. Tanner's, or secreted nice things in very small and precious quantities, like musk and castor are now formed. Nasty bile was more like myrrh and frankincense; uric and hippuric acids, were nearer akin to benzoic and cinnamic acids, into which they are even now so easily converted by skilful chemists. The scanty droppings of the animals and men were not like the Prophet Jeremiah's "naughty figs," and vicious apples, but more like the golden oranges of the gardens of the Hesperides, and *Prunus Virginiana* and *Boletus Bovinum*. It is well known that chemists and even common manufacturers now make "fruit essences" artificially, all of which, with the exception of the essence of orange, are rarely, if ever, made from the fruits after which they are named; but mainly from acetic and formic ethers, in combination with other compound ethers of methyl, ethyl and amyl. It is well-known that the essences of pineapple, muskmelon, strawberry, grape, apple, pear, lemon, wild cherry, apricots, peaches and plums are thus made and sold every day. In this view of the matter the stupendous miracle of Noah's ark sinks into insignificance in face of the Almighty's powers, in comparison with which man's are the merest trifles.

But, Dr. Peters, if you go into stables, now, in search of scarlet fever, measles, malignant sore throat, diphtheria, strangles and cerebro-spinal meningitis, you will find them; for the latter is only a foul air rheumatic fever, or inflammation; the throat affections are merely bad colds taken in foul air; and the first are skin diseases caused by acrid exhalations. You will suffer much from the "shameless innocence" of animals, and the stolid ignorance and stupidity of stable-keepers and hostlers. Whatever you do or say, like Lady Jane Grey, you must "do it, as it were in soch, weight, measure and number, even so perfectlie as God made the world, or else I [you] am [will be] so sharply taunted, so cruelly threatened, yea, presentlie-sometymes received with pinches, nippes, and bobbes and other injuries and which I will not name." \* \* \* You, too, will be in danger of nips and kicks and snorts and snarls and sneezes and breezes; you will not find nice aromatic hartshorn, or even "thieves' vinegar;" and will see things that will remind you more of assafoetida and asarabacca than of frankincense or musk. You will miss what Milton calls "the

delicacies of sight and smell, and fruits and flowers, and clean walks, and the melodies of birds ;” but find something more akin to the so-called “ German Delikatessen,” or delicate eating, or delicacies which are made up of high-smelling Limburger cheese, rank Bologna, or other sausages, and odorous stock fish, with an ancient and fish-like smell. You will think, with Addison, that “ the great and innocent are insulted by the scum and refuse of animals ;” and again, with Milton, that

“ Nature breeds  
Perverse, all monstrous, all  
Prodigious things  
Abominable, unutterable and worse.”

And exclaim, with Spencer : “ A huge and horrible mass it seemed ! ”

And may, with Burke, have to shout :

“ The consequences are before us ; they are  
About us ; they are upon us.”

And with Tillotson : “ Animals are sincere ; but not *sine cera*, *i.e.*, not without wax in their honey.”

And again, with Spencer :

“ He travels by the weary, wandering way,  
And meets a flood that doth his passage stay ;  
But not great grace to help him over past,  
Or free his feet that in the filth and mire stick fast.”

You will find no semi-celestial animals with breaths as fragrant as sozodont, nor even the pseudo-divine afflatus of the ancient augurs and sybils. Instead of nice aromatic infusions of horse-mint, catnip, or even cowslip, you will find something more like stale, musty beer, and have “ to cheese it.”

If you will kindly inform me, in the next number of the *Sanitarian*, how you would go to work to cleanse and purify filthy stables, your common hygienic and chemical way may, perhaps, teach you and others how to do these things according to the high and transcendental way that is above faintly hinted at.

Yours very sincerely and respectfully,

A. S. MUCKSLEY, F.R.S.

CONCERTED ACTION BY STATE BOARDS OF HEALTH.—A meeting of representatives of State boards was held at Detroit during the recent meeting of the American Public Health Association, at which it was decided to call a meeting of the secretaries of other representatives of all State boards of health, in Washington, during May, 1884, for purposes of conference, and with the view of organizing a section devoted to State board work in the present association, or the formation of a permanent separate organization specially adapted to the needs of State boards of health. Dr. Henry B. Baker, of Michigan, and Dr. J. N. McCormack, of Kentucky, were appointed a committee to confer with and secure the co-operation of all the State boards in fulfilling the object of the meeting, and Dr. C. W. Chamberlain, of Connecticut, Dr. J. E. Reeves, of West Virginia, and Dr. Stephen Smith, of New York, were appointed a committee on organization, to report at the meeting in May. The American Medical Association meets in Washington in May ; and another reason for holding the meeting in Washington is said to be that the representatives of the State boards may also have an opportunity of conferring with the senators and representatives in Congress, from their respective States, in regard to national sanitary legislation.

## PHARMACY AND THERAPEUTICS.

RHAMNUS PURSHIANA.—The reappearance of reports on this drug, which a few years ago excited such a considerable degree of professional attention, has characterized the periodical literature of the latter months of 1883. The cause of this renewed attention to this drug on the part of medical writers is more directly traceable to the interest which it has excited during the past year in Great Britain. The *British Medical Journal* has contained a number of very flattering reports on its efficacy, and the other journals have contained similar reports. The drug seems to have obtained a very strong foothold among our conservative brethren of the British Isles, and judging from the reports which have been given of its action in their hands, it is fulfilling the requirements of a tonic-laxative in that country.

The *Therapeutic Gazette* for December contains a symposium on cascara sagrada, from which we select some facts which do not seem to have been very generally familiar. Dr. C. W. Tangeman, of the Medical College of Ohio, has subjected it to a series of physiological experiments, the results of which he contributes as follows:

1. Cascara sagrada, when given in small doses (fifteen to twenty drops), acts like a vegetable bitter on the stomach; it increases the flow of gastric juice, stimulates the peptic glands to increased action, thereby bringing about healthy gastric digestion.

2. It acts on the sympathetic nervous system, sending an increased blood supply to the intestines.

3. It increases to a limited extent peristaltic action of the small bowels, but increases it very much in the colon, and especially in the rectum.

4. It has a specific action on the rectum in the way of peristalsis, to cause this portion of the bowel to unload itself.

5. It does not affect the passage of the food in the small intestines any more than a bitter tonic would.

6. It is not a safe remedy in pregnancy or uterine disorders, especially when given in cathartic doses.

7. It does not affect the larger glandular organs, liver, pancreas or spleen, even when given in cathartic doses.

8. Hypodermically the remedy will never produce the permanent good results in chronic constipation that are obtained when it is given by the mouth.

9. When employed subcutaneously it acts simply as an evacuant to the rectum.

10. The same quantity given hypodermically that produces marked effects when administered by the mouth, will not have the same effect clinically or physiologically.

Dr. T. L. Wright, of Bellefontaine, O., discusses the peculiar applicability of cascara cordial, of which rhamnus purshiana is the base, in the treatment of the constipation of elderly persons. In this class of cases many of the symptoms which are usually associated by physical decay are directly traceable to constipation, and Dr. Wright has found that cascara cordial, through its tonic-laxative properties, removes this condition greatly to the improvement of the person's spirits.

Dr. F. C. Herr, physician to the Southwestern Hospital of Philadelphia, after extolling the value of cascara cordial in dyspeptic disorders, speaks very highly of the preparation as a vehicle for the administration of the more unpalatable drugs. He regards the encroachments of homœopathy upon regular medicine as largely due to the persistent refusal of the old school of practi-

tioners, so-called, to accede to the demands of a sick public for palatable medicines. He has found in cascara cordial a vehicle which at once succeeds in disguising the taste of many disagreeable drugs, and at the same time meets the indication so commonly present for an easy and agreeable laxative. In discussing its applicability in the treatment of young children he has found in this cordial a preparation which is calculated to supplement to a very large degree the "carminative bottle," which has been in so much demand among young children. These baby-mixtures are too often unsafe, and should be given with a spare hand; and if cascara cordial shall be found on future trial to verify Dr. Herr's claim for it it will indeed prove to be a very valuable addition to the physician's armamentarium.

**KAIRIN.**—The *Lancet*, April 14th, 1883, says that Filehne, in a recent number of the *Berliner Klinische Wochenschrift*, calls attention to the value of derivatives of chinolin, which he, with Fischer and König, has found of great value as an antipyretic. These are kairin, kairolin, and, finally, chinolinæ hydrate of Wischnegradsky. Of these, kairin seems most likely to be of permanent value as an antipyretic. The muriate of kairin is a crystalline, clear, grayish-yellow powder, slightly soluble in water, having a bitter, saltish, aromatic taste, which is disagreeable to some patients, and is therefore given in wafers, with a subsequent drink of water. Filehne gives five to seven grains every hour or hour and a half. The remedy has shown a marked control over the temperature of croupous pneumonia. The urine, when kairin is being given, becomes dark green.

UNIVERSITY DISPENSARY TONIC.

R. Cinchon. sulph.....	ʒ j.
Ferri sulph.....	ʒ iv.
Cupri sulph.....	gr. xxxij.
Strychniæ sulph.....	gr. xvj.
Acid. sulph. arom.....	ʒ j.
Aquæ.....	Oiv.

M. Sig. Teaspoonful after each meal.

Dr. D. W. Yandell formulated this in 1855. It has remained in use ever since, giving great satisfaction, being inexpensive and efficacious.

L. P. Y.

**SURE CURE FOR CORNS.**—A. C., who has tried it, is authority for the following: Take one-fourth cup of strong vinegar; crumb finely into it some bread; let stand half an hour, or until it softens into a good poultice; then apply on retiring at night. In the morning the soreness will be gone, and the corn can be picked out. If the corn is a very obstinate one, it may require two or more applications to effect a cure.—*Druggists' Circular*.

**NOTE ON DISINFECTANTS.**—Most practitioners must have often realized the inefficiency of disinfectants in allaying the foetor of cancerous ulcers, an annoyance which sometimes troubles patients even more than the pain, or the thought of death.

I have used the whole round of disinfectants for cancerous ulcers, but all have failed in allaying the foetor, and keeping the ulcer clean. The disinfectants tried were carbolic acid, sanitas, terebene, resorcin, creasote, boroglyceride, chloride of zinc, charcoal, etc. After failure with these, I tried a saturated solution of hyposulphite of soda, added to an equal quantity of water, and found it exceedingly efficacious. The ulcerating surface was well syringed

and washed with the solution, and was then covered with rags steeped in the solution. The granulations were kept clean, and the foetor was well kept under.

Most disinfectants seem to lose their virtue after a few days' application, but I have used this one for months in the same patient with continuous good effects. It is cleanly, has no smell, does not stain, and is very cheap. I venture to recommend it to the favorable consideration of your readers, feeling sure that they will not be disappointed if they try it, and I should be glad to hear the results of their experience.

W. E. BUCK, M.A., M.D. (*Cantab.*)

CASTOR OIL AND GLYCERINE.—Dr. George R. Young, of Belfast, writes to the *Lancet*. A mixture which is of an agreeable flavor, and in which the nauseous smell of the oil is efficiently disguised, can be made thus:

R. Ol. ricini.....	3 j.
Glycerini.....	3 j.
Tr. aurantii.....	mxx.
Tr. senegæ.....	mv.
Aquæ cinnam.....	ad ʒ ss.

This forms a beautiful emulsion, is easily taken even by children, and if administered at bed-time will produce a gentle motion the following morning. In cases of habitual constipation, when this mixture is repeated for three or four nights, it brings about a regular morning motion. The tincture of senega is used to emulsify the oil, and as the quantity employed is small, its use cannot be objectionable from a therapeutic point of view.

ACCORDING to M. Feris, of Brest, veratria has the property of causing various kinds of tremor to disappear, and that in the space of ten days or a fortnight. It has been employed in disseminated sclerosis, alcoholism, and adynamic states. The dose is four pills per diem, each containing half a milligram of the alkaloid.

VESICATION IN DIPHTHERIA.—Dr. W. F. Bartlett, of Buffalo, New York, communicates to the *Therapeutic Gazette*, for December, the results of his experience in the use of cantharidal blisters in diphtheria. His plan is to apply the blister immediately on the appearance of the exudate in the throat. The theory is that the *marteries morbi* is eliminated through the blistered surface, while the counter irritation thus caused relieves also the engorged pharyngeal surfaces. He regards the exudate in the throat as merely an announcement of the presence of the poison in the blood, and that from the nature of the epithelium or impinging of inspired air primarily upon those surfaces, the partial elimination of the morbid element is accomplished.

CORROSIVE SUBLIMATE IN GONORRHOEA.—Dr. Joseph McChesney, of Deming, New Mexico, contributes to the *Therapeutic Gazette*, for December, a report of a series of seven cases of gonorrhœa in which he employed by way of treatment, only a solution of corrosive sublimate, one grain to six ounces of water. The results are already very surprising. In several of these cases this injection was resorted to after a long and unsuccessful course with the ordinary remedies in such cases, and the result was uniform success. He resorts to these injections, which he gives once every four hours, after the subsidence of the acute stage. He is very confident that properly applied this solution will effect a cure of the gonorrhœa within from eight to ten days after it has been resorted to.

## REVIEWS.

A TREATISE ON THE PRACTICE OF MEDICINE, FOR THE USE OF STUDENTS AND PRACTITIONERS. By ROBERTS BARTHOLOW, M.A., M.D., LL.D. Third edition, revised and enlarged. 8vo. cloth, pp. xx-918. New York: D. Appleton & Co.

The first edition of this work was carefully reviewed in this JOURNAL, and the opinions expressed in regard to it were by no means complimentary. Since then there has been no reason to change the estimate formed of it.

Every portion of general pathology, so acceptable in all works on "Practice," is omitted. Over twenty subjects presented in most similar works are not given. Very important subjects are dismissed with a few lines of no value whatever. Conciseness has run into vagueness and obscurity. The work suggests rather the smell of the lamp, than the associations of the bedside. There is in most of it a polypharmacy and a hyperpharmacy advised that is unwarranted and unsafe. It is far inferior to American and English works on Practice. It cannot be compared with the work of Tanner or Bristowe, or Watson in England; with that of Trousseau or Jaccoud in France; with that of Niemeyer in Germany; or with the great work of Flint in America. There is but one American "Practice" inferior to it, and that is the work of Palmer of Michigan.

It is only fair to say, and it is a pleasure to say it, that the American medical press has been generally eulogistic of Bartholow's "Practice," but *chacun à son goût*. The conciseness of the author has received hysterical adulation, but evidently by those who regard a chronological table as history. Brevity is as often a vice as it is a merit; certainly in a work which must in its very nature be descriptive, or be of no value. It was grand when Suwarow thus announced his great victory, "Warsaw is ours;" and it was a greater triumph of brevity to reply, "Bravo, Suwarow;" but neither writer was describing Warsaw.

In a descriptive work brevity is barrenness. An author thus writing is unjust to his readers, to his subjects, and to himself.

LECTURES ON ORTHOPÆDIC SURGERY AND DISEASES OF THE JOINTS. Delivered at Bellevue Hospital Medical College during the winter session of 1874-1875. By LEWIS A. SAYRE, M.D., Professor of Orthopædic Surgery and Clinical Surgery in the Bellevue Hospital Medical College, etc. Second edition, revised and greatly enlarged, with 324 illustrations. New York: D. Appleton & Co. 1883.

Seven years ago the first edition of this work was published. It received very varied notices: some caustic, some kind, but in the main impartial and just. The work has stood the brunt of ridicule and the test of time; it has become a classic and an acknowledged authority. Efforts have been made to defraud the author of much that is original with himself, but he has been fully vindicated in his claims by able friends and abundant testimony. His statements have been assailed by rivals and neighbors, but he has emerged from all of his trials triumphantly, and his work to-day stands forth unimpeached and unimpeachable. Many new chapters have been added in this edition, and the whole work has been revised. New illustrations are frequent and well prepared. The cases presented are all instructive and interesting. The style is conversational; often naïve, anecdotal, individual, and yet welcome and enjoyable. British critics have said it was undignified, but American classes look to the matter and not the manner; and in the course of years the author will yet be

dignified, or may be. His work is a standard authority, and that, after all, is the true test of an author. It is well issued.

**THE PRINCIPLES AND PRACTICE OF MEDICAL JURISPRUDENCE.** By the late ALFRED SWAINE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians of London. Third edition. Edited by THOMAS STEVENSON, M.D. (London), Fellow of the Royal College of Physicians of London, etc. 2 vols. 8vo., pp. 1,359. Philadelphia: Henry C. Lea's Son & Co. 1883.

No one will deny the truth of the claim made for this work, that it is the best of its kind in the library. It has been so for many years, and the present edition is a decided improvement over all of its predecessors. A large portion of the previous edition was rewritten; all of it carefully revised, and made to reflect the facts of science at that date. Since the death of the author, his friend and co-laborer, Dr. Stevenson, has been busily engaged in improving this great work, and it is now better than ever. The book has been so often reviewed, is so familiar to the profession, and is so unreservedly adopted as a guide and forensic authority, that it would be superfluous to add anything more to this notice of it.

**SANITARY AND STATISTICAL REPORT OF THE SURGEON-GENERAL OF THE NAVY - FOR THE YEAR 1881.** 8vo. pp. 684. Government Printing Office, Washington. D. C., 1883.

This is one of the most creditable works ever published by this Government. It is a monument of administrative genius and professional ability, and shows better than any other possible evidence could do the fitness of the present Surgeon-General of the Navy for his distinguished position.

There is presented in detail the sanitary condition of every vessel in the navy; reports from all of the naval medical officers in charge, showing a high degree of scientific ability and official care; the condition of the naval hospitals; the facts in regard to the insane; the strength of the medical corps; the number of cases treated, with results; the influence of age on morbidity, with a valuable table; sanitary investigations with heliotype plates; the report of the Naval Observatory Board; naval hygiene; medical topography and sanitary reports. There are five excellent maps, nineteen charts, many valuable heliotypes and wood cuts. Surgeon-General Philip S. Wales has, in this work, manifested great efficiency, and demonstrated the high scientific status of the naval medical officers of this country.

**HEADACHES; THEIR CAUSES, NATURE AND TREATMENT.** By WILLIAM HENRY DAY, M.D., Author of "Systematic Treatise on Diseases of Children." Fourth edition, revised. "Octavo Series of standard Medical Books." 8vo. pp. 147. P. Blakiston, Son & Co. Paper cover, 75 cents; cloth, \$1.25.

The title of this well-known volume is so voluminous that there is but little left to be said for the information of the reader. Most physicians are familiar with the work. Those who are not should purchase it. Every one has to treat headaches, and this volume will furnish to any one many useful hints. Headaches are classified by the author, and he furnishes one hundred or more formulas for their treatment. If the diagnosis is made in any case, the doctor has only to take his choice of the many prescriptions offered for his use. This, of course, does not suit the best grade of physicians; but many like it, and these will find much to rejoice their hearts in this mode of managing their headache patients. To many doctors, a new prescription has all of the charms that a new bonnet has for the average woman, and in this book there are 116!—a mine of



pleasure!—a very bonanza in pharmacy. But every one will find the volume useful.

STUDENT'S GUIDE TO DISEASES OF THE EYE. By EDWARD NETTLESHIP, F.R.C.S. Second American, from the second revised and enlarged English edition. With a chapter on Examination for Color Perception, by WILLIAM THOMSON, M.D., Professor of Ophthalmology in the Jefferson Medical College. Philadelphia: Henry C. Lea's Son & Co. 1883.

This is, deservedly, one of the favorite volumes in every physician's library. The author has had such great experience; he writes so clearly and well; his views are so judicious and satisfactory; he is so simple and practical in dealing with diagnostic facts; there is in every sentence an idea worth having, and it is presented in such few and well-chosen words. It is in every respect an excellent volume.

It cannot be said that the additions of Dr. Thomson give any value to the volume. It is to be hoped that the next edition of the work will contain the test types given in the English edition. It was a serious omission not to give them in the American reprint.

DIAGNOSIS OF OVARIAN CYSTS BY MEANS OF THE EXAMINATION OF THEIR CONTENTS. By HENRY J. GARRIGUES, A.M., M.D., Obstetric Surgeon to the Maternity Hospital, etc. New York: W. Wood & Co. 1883.

This essay appeared in the *American Journal of Obstetrics*, and seems to have been republished without change. The author has presented the subject very fully and with much ability. He concludes that the examination of the fluid from ovarian cysts is, in value, more confirmatory than absolute, as a guide in diagnosis. Such fluids are not to be regarded as pathognomonic, but they often serve a valuable purpose as confirmatory, when the diagnosis is otherwise unsatisfactory. This seems to be the scope and results of the author's labors in this work.

THE DISEASES OF WOMEN: A MANUAL FOR STUDENTS AND PHYSICIANS. By HEINRICH FRITSCH, M.D., Professor of Gynecology at the University of Halle. With 159 wood engravings. New York: W. Wood & Co. 1883.

As a guide to the present status of gynecology, as known in Germany, this book is in all respects excellent. It is inferior to American works in every respect. It can bear no comparison with them. Its merits are, that it is cleverly written, that it is a reflex of German thought, and that it has not the usual German blemish of offensive dogmatism, and the foolish and ludicrous claims to superior wisdom.

EPITOME OF SKIN DISEASES, WITH FORMULÆ FOR STUDENTS AND PRACTITIONERS. By the late TILBURY FOX, M.D., F.R.C.P., and T. COLCOTT FOX, M.B., M.R.C.P. Third American edition by T. COLCOTT FOX, B.A., M.B., Physician for Diseases of the Skin to the Westminster Hospital, etc. Philadelphia: H. C. Lea's Son & Co. 1883.

The classification in this work is that adopted by the American Dermatological Association. The volume is not as complete as that of Dühring's, but it is one that has stood the test of time, and won its way to professional confidence and support. The present edition has been carefully revised. The formulæ will be to many like sugar plums at Christmas to children—so many, so attractive and so tempting, that there will be the familiar mistake of taking too many at once. "Give me prescriptions," say the prescription maniacs, and how many philan-

thropic authors charitably respond to this cry from the wilderness! Many authors believe that readers cannot make prescriptions correctly, and such authors are greatly beloved!!

**MATERIA MEDICA FOR PHYSICIANS AND STUDENTS.** By JOHN B. BIDDLE, M.D., late Professor of Materia Medica and General Therapeutics, Jefferson Medical College, etc. Ninth edition. Revised, rewritten and enlarged, in accordance with the sixth revision of the U. S. Pharmacopœia. By CLEMENT BIDDLE, M.D., U. S. Navy. With numerous illustrations. Philadelphia. P. Blakiston, Son & Co. 1883. Small 8vo. pp. 537. Price, cloth, \$4; sheep, \$4.50. (From publishers.)

This old favorite appears once more, and in a much-improved form. It is made to correspond with the last edition of the U. S. Pharmacopœia. There has been a liberal and faithful addition made in the shape of the newest and best preparations in regular pharmacy. The metric system is fully and carefully presented. The chapters on botany are made more concise, and fuller attention is given to the physiological action of drugs. The publishers have interleaved the work with blank pages for notes, to be made by the owner. It is a practical and useful work.

**INSANITY: ITS CAUSES AND PREVENTION.** By HENRY PUTNAM STEARNS, M.D. Small 8vo. Pp. 248. New York: G. P. Putnam's Sons. 1883.

This is a pleasant and sketchy volume. There is nothing worthy of especial mention about it. The author discusses fairly a number of subjects; the insane diathesis, the increase of insanity, the influence of age, education, marriage, heredity, alcohol, tobacco, sex, poverty, religion, insomnia, etc. He claims that there is both an absolute and relative increase of insanity, and his views of the predisposing and immediate causes of insanity, are such as are familiar to the profession. The best part of the book is that in which "cases" are detailed and the reader is left to draw his own conclusions. The book, however, has no especial value.

**THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE EAR.** By OREN D. POMEROY, M.D., Surgeon to the Manhattan Eye and Ear Hospital, Ophthalmic and Aurial Surgeon to the New York Infant Asylum, etc. With one hundred illustrations. Price, \$3.00. New York: Bermingham & Co. 1883.

This is a most excellent and useful manual, but cannot, of course, be compared with the better known and more systematic treatises. It is sold at a marvelously low price for the value of the volume. The illustrations add much to the value of the manual. One can scarcely invest the amount asked for this excellent work more usefully. It is particularly adapted for use by the general practitioner, and will be justly and highly valued.

**THE MICROSCOPE AND ITS REVELATIONS.** By W. B. CARPENTER, C.B., M.D., etc. Sixth edition. With plates and engravings. Vols. I. and II. New York: W. Wood & Co. 1883.

These volumes form portions of Wood's library for 1883. This work is one of the best guides for the practical microscopist. It is not, further than this, a medical work. In its special field, however, it is, by general consent, admitted to be one of the best.

**ENTERIC FEVER: ITS PREVALENCE AND MODIFICATIONS; ÆTIOLOGY, PATHOLOGY**

AND TREATMENT, AS ILLUSTRATED BY ARMY DATA AT HOME AND ABROAD. By FRANCIS H. WELCH, F.R.C.S., Surgeon-Major, U.M.D. (Alexander Prize Essay, 1881, modified.) Philadelphia: Presley Blakiston, Son & Co. 8vo. pp. 190.

If this work had been published twenty years ago, when what some people call "the rebellion" was in progress, it would have been of far greater interest than it is now. It is chiefly of interest to military surgeons, though it is a very good reference book for the library.

ACUTE DISEASES AND INJURIES OF THE EYE, EAR AND THROAT. Some suggestions to the family physician on their management. By W. CHEATHAM, M.D., Lecturer on Diseases of the Eye, Ear, and Throat, University of Louisville, etc. Reprint from *American Practitioner*.

BACTERIA AND THE GERM-THEORY OF DISEASE. By DR. H. GRADLE, Professor of Physiology, Chicago Medical College. 8vo. pp. 219. Chicago: W. T. Keener, 96 Washington street. 1883.

A very fair examination of the subject of bacteria up to the present time, presenting the questions of bacteria cultivation, fermentations, putrefaction, inoculation of germs, the relation of the germ-theory to disease, etc. The eight lectures are lucid, practical and useful.

A TEXT-BOOK OF GENERAL PATHOLOGICAL ANATOMY AND PATHOGENESIS. By ERNST ZIEGLER, Professor of Pathological Anatomy in the University of Tübingen. Translated and edited for English students by DONALD MACALISTER, M.A., M.B., M.R.C.P., etc. New York: William Wood & Co. 1883. Pp. xv.-371. Wood's Library of Standard Medical Authors.

To those interested specially in pathology, this work will be valuable. It is, however, too technical and special for the average practitioner.

ELEMENTS OF HISTOLOGY. By E. KLEIN, M.D., F.R.S. Illustrated with one hundred and eighty-one engravings. Philadelphia: Henry C. Lea's Son & Co. 1883.

This work is elementary, but by no means superficial. Those who wish a brief, practical, well-illustrated and interesting volume on histology, would do well to purchase this one. It is an exceedingly excellent work.

CHEMISTRY, INORGANIC AND ORGANIC, WITH EXPERIMENTS. By CHARLES LOUDON BLOXAM, Professor of Chemistry in King's College, London; in the Department of Artillery Studies, Woolwich, etc. From the fifth and revised English edition. Philadelphia: H. C. Lea's Son & Co. 1883.

It is only necessary to call attention to the appearance of this classic. This edition is revised and improved, and is beautifully published. There are nearly 300 illustrations, and they are all excellent.

CHEMISTRY, GENERAL, MEDICAL AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE U. S. PHARMACOPŒIA. By JOHN ATTFIELD, F.R.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Tenth edition; specially revised by the author for America. Philadelphia. Henry C. Lea's Son & Co. 1883.

This work has reached its tenth edition in sixteen years. It is an old and deserved favorite, well known to every one and particularly valued by the general practitioner.

THE TREATMENT OF WOUNDS: ITS PRINCIPLES AND PRACTICE, GENERAL AND SPECIAL. By LEWIS S. PILCHER, A.M., M.D., Member of the New York Surgical Society. With 116 wood engravings. New York: Wm. Wood & Co. 1883.

This is the work of an accomplished and practical surgeon and an acceptable writer. He gives the principles of treatment for all wounds, then advises rules for carrying out these principles, and shows how these rules are to be modified in treating special wounds. A brightly written and excellent work.

THE MEDICAL RECORD VISITING LIST, OR PHYSICIAN'S DIARY FOR 1884. New York: Wm. Wood & Co.

THE PHYSICIAN'S VISITING LIST FOR 1884. Thirty-third year of its publication. Lindsay & Blakiston.

THE PHYSICIAN'S POCKET DAY-BOOK. Good for thirteen months. Designed by G. HENRI LEONARD, M.A., M.D., Detroit, Michigan.

MINER'S PHYSICIAN'S MEMORANDUM BOOK. Published by Joel A. Miner, Ann Arbor, Michigan. 1884. Price by mail, \$1.25.

THE PHYSICIAN'S DAILY POCKET RECORD. Edited by D. G. BRINTON, M.D., Philadelphia.

WALSH'S CALL BOOK. Washington, D.C.

These useful companions for 1884 have all been received; Wood's is the handsomest ever published; Lindsay and Blakiston's is the oldest; Leonard's is the simplest. Miner's, Brinton's, and Walsh's the equal of any in usefulness and efficiency. They are all good and deserve success and support.

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## MISCELLANEOUS.

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THE TREATMENT OF TREMOR.—According to M. Feris, of Brest, veratria has the property of causing various kinds of tremor to disappear, and that in the space of ten days or a fortnight. It has been employed in disseminated sclerosis, alcoholism, and adynamic states. The dose is four pills per diem, each containing half a milligramme of the alkaloid.—*Medical Record*.

THE proportion of doctors to population is given as follows by the *Siglo-medico*:

France.....	2.91	per 10,000.
Germany.....	3.21	"
Austria.....	3.41	"
England.....	6	"
Hungary.....	6.10	"
Italy.....	6.10	"
Switzerland.....	7.06	"
United States.....	16.24	"

PURULENT PERICARDITIS CURED BY FREE INCISION.—Dr. West reports a case of purulent pericarditis in a boy of sixteen years, which was successfully treated by making a free incision subsequent to pericardicentesis. Recovery followed in five weeks.—*Lancet*.

ARTIFICIAL IMPREGNATION IN ITS MEDICO-LEGAL ASPECTS.—A case of much interest to the medical profession has recently been brought before the civil tribunal at Bordeaux. It appears that a certain physician in Bordeaux advertised widely that he was able to cure sterility in either sex, and no matter how obstinate. Attracted by these pretensions, M. and Mme. A., a childless couple, went to the quack and secured his services. The operation known as artificial impregnation was performed, but, as the evidence shows, in a bungling and incomplete manner. Conception did not take place; but, on the contrary, some local injury was done. Despite the failure the quack claimed his fee, which was the moderate sum of fifteen hundred francs, and accused the woman of having attempted abortion. The case was brought before the court, which not only refused to award the fee but condemned the operator and the operation. The decision does not affect the legality of the operation itself, but the judge condemned it as being a procedure which was unnatural, and which might, if abused, be a source of danger to society.

Artificial impregnation is an operation which, in certain cases, may be justifiable, but which is generally resorted to with extreme caution by gynecologists. The practicability of artificial impregnation was first shown upon the lower animals by Spallanzani in 1782. Dehant and Sims, about twenty years ago, began to attempt it upon human subjects. In fifty-five separate experiments upon six patients, Sims only succeeded once, and he has now abandoned the operation. Some French gynecologists still endorse it.—*N. Y. Record.*

THE COLORED CURTAIN IN THE EYE. By WILLIAM ACKROYD.—This ring-like curtain in the eye, of gray, green, bluish-green, brown, and other colors, is one among the very many remarkable contrivances of the organic world. The eye cannot bear too much light entering into it, and the colored curtain so regulates its own movements that too much light cannot enter the eye. The dark circular aperture in the centre, known as the pupil, is consequently for ever altering in size; on a bright, sunshiny day, out in the open, it may be only the size of a pin's head, but at night, when there is no light stronger than starlight, it is even bigger than a pea.

This colored ring curtain is fixed at its outer edge, and its inner edge expands or contracts so readily and, apparently, so easily, preserving its circular outline all the while, that it is quite provoking to the inventor, who has been trying to invent movable "stops" or "diaphragms" for years, and after all his labor cannot even approach it in perfection, and his despair is complete when he learns that the movements of this eye curtain are automatic and quite independent of the will.

It is unlike the ordinary window blind, which is generally of a rectangular shape, and is drawn up or let down according to the amount of light entering the room. The eye curtain or iris is of ring shape, and possesses a wonderful power of expanding itself so as to diminish the area of the pupil, and of shrinking in, so as to enlarge the area of the pupil. Its movements may be watched in a variety of ways, some of which we shall describe.

The common way of watching the movements of the iris is to regard it closely in a looking-glass while the amount of light entering the eyes is varied. Place yourself before a looking-glass and with your face to the window. Probably the iris will be expanded, and there will only be a very small opening or pupil in the centre. Now shut one eye suddenly, while narrowly watching the other in the glass all the time. At the moment the light is cut off from one eye, the iris of the other contracts or is drawn up so as to enlarge the pupil. This shows that there is a remarkable interdependence between the curtains of the two eyes, as well as that they are affected by variations in the quantity of light falling on them.

Perhaps one of the most interesting ways of watching the movements of these sympathetic eye curtains is one which may be followed while you are out walking on the streets these dark winter nights. A gas-lamp seen at a distance is, comparatively speaking, a point of light, with bars of light emanating from it in many directions. These bars, which give the peculiar spoked appearance to a star, are probably formed by optical defects of the lens within the eye, or by the tear fluid on the exterior surface of the eye, or by a combination of all these causes. Be that as it may, the lengths of the spokes of light are limited by the inner margin of the eye curtain; if the curtain be drawn up, then the spokes are long; if the curtain be let down, or, in other words, if the pupil be very small and contracted, then one cannot see any spokes at all. Hence, as I look at a distant gaslight, with its radiating golden spokes, I am looking at something which will give me a sure indication of any movements of the eye curtains. I strike a match and allow its light to fall into the eyes; the spokes of the distant gas-lamp have retreated into the point of flame as if by magic; as I take the burning match away from before my eyes the spokes of the gas-lamp venture forth again.

The experiment may be utilized to see how much light is required to move the window curtains of the eyes. Suppose you are walking toward a couple of gas-lamps, A and B; B about fifty yards behind A. Then, if you steadfastly look at B and at the golden spokes apparently issuing from it, you may make these spokes a test of how soon the light of A will move your eyes. As you gradually approach A you come at last to a position where its light is strong enough to make the spokes of B begin to shorten; a little nearer still and they vanish altogether. I have found that about a third of the light which is competent to contract the pupil very markedly will serve to commence its movement.—*Knowledge.*

REMOVAL OF WARTS.—Warts may be removed by cauterization, as recommended by Dr. Cellier in the *Jour. de Méd. et de Chir. Pratiques* (*Medical Record*). An ordinary pin is thrust through the base of the wart, care being taken not to wound the healthy tissue beneath. Then the skin being protected, the head of the pin is heated in the flame of a candle. It is said that the wart becomes white and fissured in a few minutes, and comes away on the point of the pin. Dr. Cellier also says that it is only necessary to remove one wart on the hand, that though there may be a dozen, all the others will disappear without treatment.

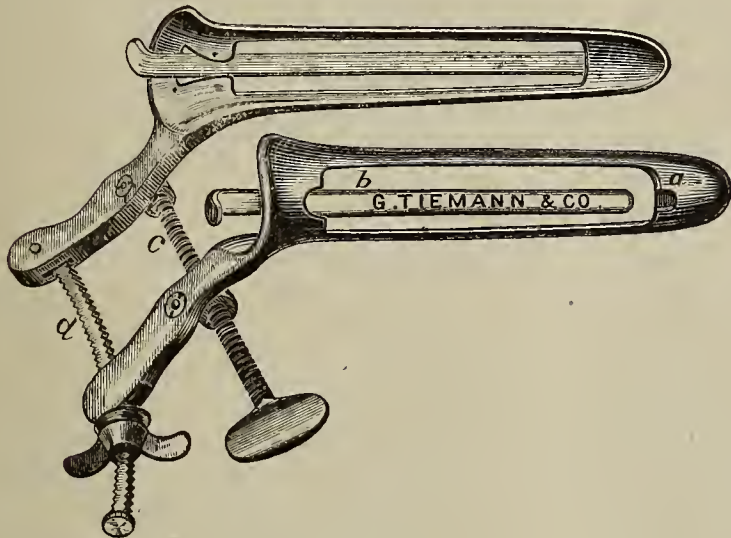
A PALATABLE COUGH MIXTURE.—℞. Syr. Scillæ, ʒj.; Acid. hydrobromic, dil., ʒss; Spirits chloroform, ʒss; Aquæ, ʒj.

THE MORTALITY REFERABLE TO ALCOHOL.—At the end of a long and carefully prepared report recently drawn up by a Committee of the Harveian Society, it is concluded: that there is, upon the whole, reason to think that, in the metropolis, the mortality among any considerable group of intemperate persons will differ from that generally prevailing among adults in the following important particulars, viz., a fourfold increase in the deaths from diseases of the liver and chylipoietic viscera; a twofold increase in the deaths from disease of the kidneys, a decrease of half as much again in those from heart-disease, a marked increase in those from pneumonia and pleurisy, a considerable increase and an earlier occurrence of those from disease of the central nervous system; a marked decrease in those from bronchitis, asthma, emphysema, and congestion of the lungs, a decrease nearly as great in those from phthisis, and a later occurrence, or at least termination, of the disease; a very large decrease in those from old age, with an increase in those referred to atrophy, debility, etc., and the addi-

tion of a considerable group referred in general terms to alcoholism or chronic alcoholism, or resulting from accidents.—*British Medical Journal*.

RESECTION OF THE LUNG IN ITALY.—This operation was performed on July 6th, by Prof. Ruggi, on a woman, æt. 30, for a vast phthisical cavity of the right lobe. The entire lobe was removed through an opening in the anterior superior wall of the thorax. The second and third ribs were excised for a distance of nearly three inches, the pleura opened and detached from the lung, without the least respiratory or circulatory trouble. The operation lasted about one hour and a half. Though the pulse, respiration, and temperature remained normal for thirty hours, the patient sank and died in a few days.—*Medical News*.

NEW SPECULUM.—A new speculum for the rectum, and also for the vagina of the virgin, by W. W. Keen, M.D., of Philadelphia. The inventor says: "I have found the ordinary specula so unsatisfactory in the examination of the rectum that I have devised the present one to fulfil several purposes, and I have found it practically to answer the objects I have had in view. The figure shows it of about three-fifths the full size, the length of the blades being three and three-



quarter inches, the breadth seven-eighths of an inch at the base. Placing the blades and handles in apposition, the blades are dilated at base by the screw *c*, the ends remaining in contact and so forming a long  $\Delta$ . This enables one to expose to view the anus and lower rectum, while the closed extremity prevents the escape of the fæces, unless they be very liquid. The value of this manoeuvre in examinations for hæmorrhoids, fissures and other anal troubles,

or in any operations on piles, is very obvious. If a lateral view of the rectum be desirable, one slide, *b*, or both may be withdrawn. *a* Is a slot in which the extremity of the blade fits snugly when it is in place.

By screwing up the nut on the screw *d*, instead of *c*, the heels of the blades are a little dilated, but the chief dilatation is at the points. This will give a view of the rectum higher up. Or by using both screws, *c* and *d*, the blades may be dilated parallel to each other as in the engraving.

The small size of the speculum renders it admirably adapted for vaginal examinations in the virgin, with the same variations in its manipulation as above described.

I must acknowledge the assistance rendered by Messrs. G. Tiemann & Co., in suggesting mechanical details which have improved this instrument.

DR. JONATHAN HUTCHINSON (*British Medical Journal*, October 20th) says that since he has come to appreciate the value of yellow oxide of mercury ointment in the treatment of chronic inflammations of the eye he has been able to abandon almost entirely the use of blisters, setons and like painful measures.

THE Maori modus operandi during labor is as follows: When the woman is taken in labor, she, with one or two of the same sex, goes into the

titree, or manuka scrub, some two hundred yards or so from the whare, and, if the weather is bad, a tent is erected, according to the circumstances of the family. In fine weather no preparation is made. They are never confined in their own whares. The posture during labor is the kneeling one; the woman clasping her arms around one of the attendants, who supports and presses the abdomen, while the other receives the child at birth from behind.

The placenta is removed by pressure on the womb through the abdominal wall, and if there is any difficulty, the woman goes at once into the cold or tepid water, and by kneading the womb, as above described, the object is attained.

The placenta is invariably buried secretly. Allowing time and using pressure from without are their only modes of conducting labors. In cases that did not yield to these means the woman was allowed to die.

They know no internal operations at all; but, as one of my most intelligent Maori informers said: "There is very seldom any trouble. Often the woman delivers herself alone, and brings in a kit of potatoes as well as the child.—*Australasian Med. Gazette.*

SCARLET FLANNEL.—A writer in the *Lancet* says: The system of dyeing scarlet flannel with lac dye or cochineal has been abandoned in favor of aniline dye, into the manufacture of which arsenic so largely enters, and from which it is seldom, if ever, free. At the present moment I know of a case of serious skin eruption in a family of children, which the doctor attributes to the use of scarlet flannel drawers. As scarlet is said to be the fashionable color this winter, it is most important to be warned in time.

VISIBLE CAPILLARY PULSATIIONS.—M. A. Ruault recently read a paper before the Clinical Society, which relates to the visible capillary pulsations. The symptomatic value of this phenomenon was first indicated by Quincke. According to this author the capillary pulse, indicated by alternate redness and pallor of the tissues concerned, isochronous with the cardiac systole and diastole, is specially observed under the finger-nails in healthy subjects, as well as in slight chlorosis and particularly in aortic insufficiency. It is occasionally accompanied by a similar pulse visible at the fundus oculi, by the ophthalmoscope. M. Ruault's communication relates, however, to a variety of visible capillary pulse which may be observed on a so-called vaso-motor spot, produced by rubbing the forehead with the finger-nail. The capillary pulse is plainly seen in these congested areas if the observer's eye be maintained at a distance of thirty or forty centimetres from them, and the cardiac pulsations are easily counted. M. Ruault has never observed the capillary pulse in healthy persons, but in chlorotic patients and in those suffering from lead poisoning, whose arteries presented the fibroid degeneration known as arterio-sclerosis. The pulsations in question were most constantly observed, however, in patients with aortic insufficiency, especially in those whose cardiac action was regular and strong. It therefore seems that the capillary pulse can only occur in those pathological conditions attended by co-existing augmented cardiac impulse and general arterial contraction, as is frequently the case in arterio-sclerosis.—*Journal de Médecine et de Chirurgie Pratiques.*

MALARIA FROM FLOWERS.—Tending to corroborate the idea that malaria is caused by *any* vegetable decomposition is the case reported by Dr. Eichwald, of St. Petersburg, of a lady who lived constantly in a room filled with flowers in pots, and who thus acquired an intermittent fever with symptoms of true malaria.—*Boston Journal.* [NOTE.—A mere coincidence, evidently. Those who tend all of the flowers and plants in hot-houses never thus suffer.—E. S. G.]



BABY-SUP.—Prof. Albert R. Leeds, of the Stevens Institute, Hoboken N. J., says “Baby-sup is the worst of all of these foods, for very little of the starch has been converted into sugar. This is not exactly the kind of food that Liebig intended for feeding infants, I think.” Yet professor Leeds has very recently said of baby-sup:

“No. 1.—It is very sweet, partly crushed, whole oatmeal, very palatable even before cooking, and dissolving readily in the juices of the mouth. It is prepared from malted oats, and after the conversion of the starch has gone as far as it is thought it will proceed, the oats are carefully hulled—only a residue of the coat being left in the crack of the grain. The analysis shows the lowered percentage of starch and the increase of saccharine bodies due to this treatment.

“No. 2 consists of wheat flour, malted barley and potassium bicarbonate, in the proportions given in Liebig’s formula. In its dry state the mixture has but little taste, but becomes thin, sweet and palatable on cooking. The analysis gives but a partial result of this change, because the food was cooked only five minutes before the analysis, whilst the directions call for a half-hour’s cooking. But already much of the starch has been converted into dextrine. These foods are most commendable efforts to carry Liebig’s views into practice, and it is to be regretted that a certain amount of care and time is requisite to properly cook them, and for this reason they will probably have only a restricted use.”—*Report upon Health Foods, Invalid Foods, and Infant Foods, New Jersey State Board of Health Report, 1882, p. 198.*

[NOTE.—The views of Professor Leeds as to baby-sup are evidently governed by circumstances.—E. S. G.]

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## MEDICAL NEWS.

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DR. SIMS.—The twenty-ninth anniversary of the Woman’s Hospital was celebrated at the wards of the institution, when a bust of the late Dr. Marion Sims, by Du Bois, of Paris, was presented by Mrs. Russell Sage, who said that it was almost thirty years since a memorable meeting was held in Stuyvesant Institute on Broadway, near Bond street, and the outcome of that meeting was the Woman’s Hospital, the first of its kind in the world. A physician, guided by the inspiration of the genius God had given him, had sought this city, bringing with him the results of faithful, conscientious toil, which had achieved success in the cure of a pitiful and pitiless malady. It became their sacred duty to crown him Benefactor whom two continents had delighted to honor, and she hoped that the marble now presented would help to perpetuate in coming years the name of Dr. J. Marion Sims, the founder of the Woman’s Hospital.

THE *Æsculapian* is the last New York medical monthly. It is a double-column, 48-page journal, published by Bermingham & Co. for \$2 a year. The January number is well prepared and issued.

SUSPENDED.—The Pittsburgh *Medical Journal* will suspend further publication for the present, to reappear next summer if it receives the “proper encouragement.”

HOSPITAL Saturday and Sunday in this city has yielded \$28,000.

DR. WILLIAM B. PLATT, on Saturday, November 24, obtained by examination the degree of Fellow of the Royal College of Surgeons of England. He is said to be the first native-born citizen of the United States who has obtained this degree. There were seventeen candidates, and nine succeeded in passing the examination.

BARNUM MAKES HIS WILL.—P. T. Barnum seems to consider his life work accomplished in the obtaining of the sacred white elephant from the Burmese king, for he has just made his will. *In order that there might be no question as to his sanity upon which to ground contests after his death, he had eminent physicians examine him, and secured their attestation that he was of sound mind.* The will and its codicils cover more than 700 pages of legal cap, closely written, and disposes of real estate and personal property of the value of \$10,000,000.


A PEOPLE WITHOUT CONSUMPTION.—According to the *Medical and Surgical Reporter*, a paper was read recently before the Tennessee Medical Society, with the title, "A People without Consumption, and some Account of their Country." The country in question is the Cumberland plateau. The writer, Dr. Wright, has practised in the region throughout a generation, and in his assertion of fact touching the entire absence of consumption he is supported by the testimony of about twenty other physicians of standing.

COPPER AND CHOLERA.—M. Vulpian presented to the Académie de Médecine a note from Bochefontaine, which states that, after a careful investigation of different districts densely populated by copper workers, he ascertained that these districts have not been exempt from epidemics of cholera and typhoid fever, and mentions the instance of the coppersmiths of Villedieu, among whom, some time ago, there appeared a severe epidemic of that disease. M. Bouley has presented to the Académie des Sciences M. Burq's report of his inquiry among large copper factories. It contains a great deal of concordant evidence that copper workers are exempt from cholera and infectious illnesses, the report, therefore, differing entirely from M. Bochefontaine's note.

MORTALITY OF ENTERIC FEVER IN NEW YORK.—Dr. Delafield, in the *Medical News*, gives a valuable monograph on typhoid fever as it prevailed in the hospitals of the City of New York for six years, ending with October, 1883. There were 1,305 cases, and an average mortality of about twenty-five per cent. Nearly one-half the entire number of patients were between the ages of twenty and thirty. The lowest mortality was in 1879, and the greatest in the year following, viz., 1880.

THE Post-Graduate Medical School has had a prosperous opening, and begins its second term with about sixty students, all of whom are graduates in medicine.

THE Orthopædic Hospital and Dispensary held its annual meeting December 5. The report of the previous year shows the institution to be in a prosperous condition. Over fifteen hundred patients were treated, of whom four hundred and fifty were either entirely or partially cured. Fourteen beds were endowed for one year.

MARRIED.—"Dr. C. B. Raines, Jr., of Mineral Springs, Texas, was wedded to Mrs. Margaret Wilson, in Ft. Worth. Happy doctor, we congratulate you, and sincerely wish you and your fair bride a pleasant and prosperous journey through life. Here is our , Dr., shake!"—*Texas Exchange*.

A NATIONAL hygienic congress was held in the city of Mexico on October 10th, at which a petition was prepared for presentation to Congress, asking that the constitution be amended by the addition of an article placing all sanitary regulations under the jurisdiction of the general Government.

DAMAGES FOR ACCIDENTS DURING ANÆSTHESIA.—Legal proceedings have recently been taken against a dentist in New York city for negligence in allowing a piece of tooth to drop into a patient's throat. After causing the patient to suffer from troublesome fits of coughing, the tooth was expectorated at the end of a month. A verdict was found for the plaintiff, and the defendant was obliged to pay five hundred dollars damages, and on appeal the judgment was sustained.

EFFECT OF THE CONTAGIOUS DISEASES ACT REPEAL, ENGLAND.—The Admiralty has issued an unprecedented order on the spread of contagious diseases among seamen. Since the repeal of the act relative thereto it says the spread of the pestilence at home ports and the extent to which seamen are incapacitated causes such a great dearth of seamen that henceforth simple cases cannot be exempted from draft abroad. The navy is in a worse sanitary condition than since the adoption of the act of 1866.

DR. D. W. YANDELL, of Louisville, Ky., has been elected honorary member of the Medical Society of London.

ORGANIZING A CREMATION SOCIETY.—New Orleans, Jan. 8.—A large meeting was held at the Stock Exchange to-night to organize a cremation society and make preparations for erecting a crematory for the burning of the dead. Dr. Felix Formento presided, and Eugene H. Levy acted as secretary. Plans were fully discussed, and it was determined to proceed at once. Dr. Formento was a delegate to the International Sanitary Council which met last year at Geneva, and submitted an argument for the sanitary necessity of cremation in the lowlands of Louisiana, where underground interment is impracticable. Plans of the Crematory Temple at Milan and Dr. Lemoyne's establishment at Washington, Penn., were submitted and referred to a committee. The meeting was largely composed of physicians, lawyers, and journalists, and the Hebrew faith was the one most numerously represented. The only clergymen so far identified with the movement here are of that class. The last grand jury of the parish unanimously recommended cremation as a sanitary necessity for the destruction of the bodies of the dead at the Charity Hospital.

A CASE of death from the inhalation of ether occurred at a clinic at Bellevue Hospital recently. The patient was a boy with apparently sound lungs and heart. He was under ether for about an hour and a half when he suddenly ceased to breathe, and all efforts at resuscitation failed.

CHILD-BEARING LATE IN LIFE.—Dr. John Meredith reports (*British Medical Journal*) the case of a woman who gave birth to a child when forty-eight years of age. American women would think nothing of this; any of them are equal to the feat.

THE MEDICO-LEGAL SOCIETY.—The annual election of this society, held December 5th, resulted as follows: President, Clark Bell, Esq. (third term); Vice-Presidents, Dr. R. O. Doremus and D. C. Calvin, Esq.; Secretary, L. P. Holme, Esq.; Treasurer, A. D. Hammersley, Esq.; Curator, Dr. A. H. Smith; Chemist, Professor C. A. Doremus.

RICORD.—Holmes calls the vivacious Ricord “the Voltaire of pelvic literature—a sceptic as to the morality of the race in general, who would have submitted Diana to treatment with his specifics, and ordered a course of blue pills for the vestal virgins.”

THE royal borough of Windsor is reported by the *British Medical Journal* to possess at the present time a health record which is hardly to be equaled and certainly is not surpassed. For the last quarter its death rate was only 9.4 per 1,000, and not one of the deaths was due to any infectious disease.

SUPPRESSION OF QUACKERY.—At the annual meeting of the New York County Medical Society, held October 22, the sum of three thousand five hundred dollars was appropriated for use during the ensuing year in prosecuting illegal practitioners. The report of the proceedings of last year showed that the proper officers of the society had performed their unwelcome and often disagreeable task with satisfaction, and had found, with few exceptions, that they had the co-operation of the court in carrying out the law.

A NEW quarterly journal, to be called “The International Review of Medical and Surgical Technics,” will be started in Boston, January 1, by Drs. Joseph H. and Charles Everett Warren and Willard Everett Smith. It will be devoted chiefly to the description, illustration and discussion of instruments, appliances and methods of operation that have been recently devised or published.

THE INCURABILITY OF CONGENITAL COLOR BLINDNESS.—Dr. B. Joy Jeffries calls attention to the fact that it is almost universally conceded by ophthalmologists and experts that congenital color-blindness is incurable. He refers to the contrary view held by Favre, of Lyons, France. Dr. Jeffries agrees in urging the value of educating the color-sense among the children of public schools.—*Medical Record*.

LAY NURSES IN FRENCH HOSPITALS.—The Hospital Council of Paris has voted that the Necker Hospital be provided with lay nurses, and the sisters of charity be removed. M. Desprès, a French hospital surgeon, sends to the *Gazette des Tribunaux* a letter he addressed to the Préfet of the Seine to protest against this change, highly unpopular amongst a large section of the medical officers of Parisian hospitals.

THE Tri-State Medical Society changed its name at its last meeting, and is hereafter to be known as the Mississippi Valley Medical Society.

DEATH OF PROFESSOR DEPAUL.—On the 22nd of October, Professor Depaul, the celebrated obstetrician, died at his native place, near Pau (Basses-Pyrénées). He was a commander of the Legion of Honor, member and formerly president of the Academy of Medicine, and one of the committee of publication of *La France Médicale*. He was 72 years of age, and died of pneumonia.

LARGE DAMAGES FOR LIBEL.—Last year Dr. Donald McLean, Demonstrator of Anatomy in the Medical Department of Michigan University, was charged with criminal relations with a lady patient from Canada, who sought his advice, the publication being made in the *The Evening News*, an afternoon paper of Detroit. Dr. McLean sued the newspaper for libel, which it undertook to justify, but the jury rendered a verdict of \$20,000 damages. The case was appealed to the Supreme Court, which has affirmed the judgment of the Court below.

THIS CITY'S BIRTHS, MARRIAGES AND DEATHS IN 1883.—At the close of business hours in the Health Department, December 31st, there had been recorded 28,972 births, 11,556 marriages and 33,982 deaths during 1883; against 27,321 births, 11,085 marriages and 37,924 deaths in 1882. Of the births, 14,835 were boys, who outnumbered the girls by 698. Of colored children, 255 were born. Mothers who gave birth to twins number 140 and those who gave birth to triplets 2. One mother was 12 years old; and a woman of 26 married a man of 82 and made him a father. One woman who had passed the age of 50 gave birth to a child.

Matrimony was indulged in by 246 men and 2,798 women who were not 20 years old. Between the ages of 40 and 45, 499 men and 216 women were married; between 45 and 50, 276 men and 120 women; between 50 and 55, 160 men and 56 women; between 55 and 60, 85 men and 24 women; between 60 and 65, 42 men and 8 women; between 65 and 70, 13 men and 3 women; between 70 and 80, 10 men, and between 80 and 90, 2 men. Eight colored men married white women. Those who entered on matrimony for the first time were 9,812 men and 10,115 women; for the second time, 1,570 men and 1,334 women; for the third time, 98 men and 42 women, and for the fourth time, 7 men.

The deaths in tenement houses were 18,041; 502 persons died in the rivers and streets. There were three judicial hangings—McGloin, Majone and Hovey. Violence caused 1,325 deaths; small-pox, 12; measles, 716; diphtheria, 709; typhus fever, 15; typhoid fever, 470; cerebro-spinal meningitis, 227; diarrhoea (among children under 5 years old), 2,867; diarrhoea (all ages), 3,393; alcoholism, 218; phthisis, 5,260; heart disease, 1,690; pneumonia, 3,158; solar heat, 83; apoplexy, 524; Bright's disease, 1,845. Of children under 1 year, 8,724 died; under 2 years, 10,246; under 3 years, 13,720. One hundred and twelve persons more than 90 years old died, among them 3 men and 17 women who were more than 100 years old. There were 61 homicides.

One hundred and sixty-one persons—134 men and 27 women—committed suicide. Their nationalities were: America, 38; Germany, 70; Ireland, 27; England, 5; Austria, &c., 5; France, 3; Scotland, 2; Sweden, Canada, Italy, Brazil, Spain and Switzerland, 1 each. Forty-three of the suicides were single, 78 were married, 24 were widowed and 1 was divorced. Nine were from 15 to 20 years old, 30 from 20 to 30, 37 from 30 to 40, 44 from 40 to 50, 29 from 50 to 60, 7 from 60 to 70 and 5 from 70 to 80. Twelve drowned themselves, 19 chose suspension, 15 sharp weapons, 56 employed powder and lead, 11 jumped from heights, 18 preferred Paris green, 11 took narcotics and the others called in the aid of poisons and gas. Thirty-four persons were accidentally poisoned. Forty-three persons were accidentally suffocated.

The following is the record of contagious diseases:

	1882.	1883.
Scarlet fever.....	6,312	3,820
Diphtheria.....	3,507	2,090
Typhoid fever.....	686	1,373
Typhus fever.....	207	71
Cerebro-spinal meningitis.....	236	239
Measles.....	4,637	3,828
Small-pox.....	708	28

The tenement-house law went into operation in June, 1879, when there were 21,163 houses, occupied by 160,362 families. There now are 25,946 houses, occupied by 201,733 families, estimated to number 907,000.

DR. GEORGE W. BAGBY, the humorist, lecturer and correspondent, died at Richmond, Va., aged fifty-five years.

DR. EDWARD WARREN-BEY, of Paris, has received two new decorations, "Officer of the White Cross of Italy" and "Member of the Order of Universal Samaritans of Geneva." (*Fredericksburg News*.) Dr. Warren was a confederate surgeon; after the war he served as surgeon-general in the Khedive's army, and was made a Bey for saving the Turkish Minister of War's life by an operation for strangulated hernia. He now does a large practice in Paris.

"ASSEYEZ VOUS."—The very latest novelty is a polite request to "sit down," and this is placed in the centre of a sheet of thin manilla paper sixteen by twenty inches in size; by means of a die, a perforated ring with fringed edges is cut out of it. It is intended to be used on the seat of a water closet as a protective: hygienic and comfortable. It is entitled the "daily need;" fits any form of water closet and is patented in France and other countries.

DR. J. MARION SIMS is said to have left, ready for publication, a story of revolutionary times, entitled "Lydia McKay and Colonel Tarleton." The Harpers are to publish it in February, 1884.

THE AGES OF THE OLDEST PHYSICIANS IN THE CITY OF NEW YORK, are: Willard Parker, 83; A. C. Post, 77; J. G. Adams, 76; William Detmold, 75; Isaac E. Taylor, 71; Austin Flint, Sr., 71; Frank H. Hamilton, 70.

THE BRAIN OF TURGÉNIEFF.—The brain of the great Russian novelist is said to have weighed 2,012 grams. The average weight of the human brain is 1,390 grams. Turgénieff's is said to be the heaviest which has yet been weighed.—*Medical Times and Gazette*.

A SPIRITUAL VISITOR.—The *Virginia Medical Monthly* states that Sir John Rose MacCormack has been passing the last few weeks in this country!

POSTAL ARRANGEMENT FOR THE COLOR BLIND.—It is claimed that many letters went to the Dead-Letter Office because of the inability of color-blind persons to recognize the difference in color between red and green. This is obviated by the law which has just gone into effect of having but one denomination and a uniform rate of letter-postage.

DR. BEIDLER, of Texarkana, has recently won a suit against the Iron Mountain Railroad. It involved the ownership of fifty-four acres of land, and has been pending for years. The land is valuable, much of it being occupied by the bed of the road. The judgment is worth \$25,000.

THE MONEY VALUE OF AN ARM.—It may be of some interest to surgeons to learn that the money value of an arm, lost in the Taunton Locomotive Works by Mr. E. H. Rankin, was, in the opinion of a jury, \$9,000.

MANITOBA MEDICAL COLLEGE.—A medical college has been regularly established in Winnipeg. The introductory lecture was delivered by the Dean, Dr. Kerr, November 15; and the regular work of the session commenced Nov. 21.

BLINDNESS is steadily decreasing in England, owing, it is considered, to the advance in surgical treatment of the eyes, and to the decline of such diseases as small-pox, etc., among children. For thirty years this affliction has gradually lessened; but within the last decade the improvement is especially noticeable, and the last returns reckon some 22,832 blind persons—about one in every 1,138.

TRICHINOSIS QUESTION.—Washington, Dec. 29.—Secretary Frelinghuysen today received a telegram from Minister Morton saying that it had been stated in the Chamber of Deputies that Dr. Dettmar, who was charged by this Government to investigate the trichinosis question, advised in his official report that all the hogs in the districts where trichinæ had made their appearance should be destroyed. Mr. Morton requested full information on the subject. Secretary Frelinghuysen immediately caused inquiry to be made at the Agricultural Department, in whose employ Dr. Dettmar had been, and this afternoon telegraphed Minister Morton that Dr. Dettmar stated incorrectly in 1878-9, in a report on swine plague, not trichinosis, that the disease was very prevalent in the West, and hogs laboring under it were carelessly sent to market; that he has since in newspapers expressed erroneous views on swine disease generally in the West; that Mr. Curtis, a thorough expert, who is investigating trichinosis, reports to the Agricultural Department that there is very little disease of any kind; that Dr. Dettmar is mistaken; that great care is taken by breeders and packers to send healthy pork to market; that the Commissioner of Agriculture entirely accepts Mr. Curtis's statement, and that at a meeting of the Swine Breeders' Association it was unanimously stated that no disease whatever had occurred among swine in Illinois, Michigan, Indiana, Wisconsin, and Ohio, whence members were present.

PRINCE BISMARCK was invited to the New Year's reception of the Emperor of Germany, but declined on the ground of medical advice. Dr. Schwenninger continues his treatment of the Prince, and has reduced his weight from 239 pounds, his average for 12 years, to 195 pounds. The Prince has resumed his riding exercise. He displays increased activity in Government affairs and in the management of his estate.

DR. J. MORRISON, of the Nautical Almanac Office, Washington, D. C., has been elected a Fellow of the Royal Astronomical Society of London, England.

PROFESSOR ERCOLANI.—Professor G. B. Ercolani, one of the most distinguished of the modern scientific men of Italy, died at Bologna, November 16, 1883.

GALVIN ELLIS, M.D., OF BOSTON.—Dr. Ellis, the professor of clinical medicine, and until quite recently the dean of the faculty in the Medical Department of Harvard University, died last month, after a long illness, which he himself diagnosed as ulcer of the duodenum—correctly, as the post-mortem examination showed. The immediate cause of death was peritonitis, due to perforation. Dr. Ellis was born in Boston in 1826, and received his education wholly in that city, taking his medical degree from Harvard in 1849. He was a diligent student, a conscientious and painstaking practitioner, and a most effective clinical teacher.

DR. C. FAYETTE TAYLOR and his partner, who have a private orthopædic hospital on a corner of Sixth avenue where the elevated railway passes on two sides of the institution, have won a suit against the Metropolitan and Manhattan Elevated Railroad Companies in the Superior Court, the jury granting them \$20,000 out of the \$25,000 which they claimed. This was the second trial, the jury in the first trial having failed to agree. The plaintiffs sought to recover damages for depreciation of property and injuries to their business, they having leased the property before the road was built, and they claimed that the trains injured their business on account of the dirt, noise, foul gases, and obstruction of light and air consequent upon running them. The defense held that the roads were legally built, and were a public necessity.

A CREMATORY ASSOCIATION has been formed in Washington, and Congress is to be asked to give it a charter. A German physician has given a lot on which to erect a crematory similar to that in Washington, Penn. One of its members says that the expense of burning a body will not be more than \$35, and that soon they may be able to reduce it to \$20.

TRICHINOSIS IN ILLINOIS.—Several cases of trichinosis have appeared in a German boarding-house at Bloomington, Ill. The disease was caused by eating raw sausage made from a hog raised in the place.

THE *International Review of Medical and Surgical Technics* is the name of a new medical journal, to be issued January 1st, 1884, in Boston, Mass. The chief editor is Dr. J. H. Warren.

THE *Archives of Laryngology* and the *Archives of Medicine* have suspended publication.

DEATH OF DR. JOHNSON ELLIOT.—Dr. Johnson Elliot, a prominent physician of Washington, died in that city, December 30th, of pneumonia. He had been ill for some time, but had recovered sufficiently to be out on the day after Christmas. This exposure led to a fatal relapse. He had for many years held the post of metropolitan police surgeon.

THE Anthropological Society is the last established in this city. It is intended to be an arena for the display of psychological study and research. So far it is as comical in its dialogues as anything seen in the circus ring.

DR. J. W. STALNAKER, of Austin, Texas, died November 11th, 1883. He was a victim of abscess of the liver. Dr. Stalnaker was a native of West Virginia, was an accomplished and beloved physician, an honored citizen and a true and devoted friend. He was a subscriber to this JOURNAL since January, 1866.

PROF. C. A. DOREMUS read recently, at the Medico-Legal Society of New York, a report of a toxicological examination for arsenic, prepared by Dr. John J. Reese, professor of toxicology in the University of Pennsylvania, and incidentally alluded to the importance of guarding against the addition, by coroners or others, of alcohol as a preservative, or any other substance whatever, to parts to be submitted to the chemist for analysis, on account of the danger of the analysis being thereby invalidated.

A NEW JOURNAL.—The *Analectic*, a monthly periscope summary of the progress of medical science, edited by Walter S. Wells, M.D., formerly editor of the "Quarterly Epitome of Practical Medicine and Surgery," and "Epitome of Braithwaite's Retrospect," etc. Subscription price \$2.50, in advance. Published by G. P. Putnam's Sons, New York City.

A JAPANESE student at the University of Berlin has been appointed assistant to the Professor of Anatomy, and the Minister of Public Worship has approved the appointment. No honor equivalent to this is said yet to have fallen on a Chinaman in any European institution.

NEW SYMPTOMS IN ENTERITIS.—Philip Brindle died at West Paterson, N. J., January 4th, 1884, after a peculiar illness of ten years. What it was no physician could tell. One singular thing about him was that during all that time



if anybody but his daughter or a neighbor named Mrs. Stoner came near him or within range of his vision he at once fell into a paroxysm resembling the state of a person suffering from a severe galvanic shock. He had no control over himself at such times. He could take food in all that time from nobody but his daughter. He spent a long time in a hospital, but nothing could be done for him, and he was discharged as incurable. An autopsy showed that the cause of death was inflammation of the bowels, and no further examination was made.—*Ex.*

HEALTH DEPARTMENT CHANGES.—Some changes in the Health Department have been made in carrying out the plan of reorganization adopted. Other changes will be made. Col. Emmons Clark is the secretary of the board. Dr. Moreau Morris is chief of the first division of the Sanitary Bureau, of which Dr. Walter De Forest Day remains City Sanitary Superintendent. Dr. Cyrus Edson, son of Mayor Edson, and Sanitary Inspector, has been made chief of the second division. Willard Bullard has been appointed chief of the third division. Dr. J. B. Taylor is chief of the fourth division. E. H. Janes, Assistant Sanitary Superintendent, is chief of the fifth division. J. C. Collins has been made chief of the sixth division. Dr. Day is chief of the seventh division, and Dr. John T. Nagle is deputy registrar of records; Inspectors Hockheimer and Cowl, in the Vaccinating Bureau, and McChesney, Lockwood, C. P. Russell, Stillwell, Roberts, and G. F. Morris, in other bureaus, have been removed, but one or more of them may be reappointed. Drs. J. F. Dunphy and G. S. Conant were appointed inspectors in the fourth division.

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## EDITORIALS.

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VOLUME XXXVII. No. 1.—Eighteen years ago the January number of this Journal bore this inscription—Vol. I., No. 1, now it is Volume XXXVII., No. 1. And in the fearful lapse of time which is represented by the difference in these two inscriptions, what has not occurred to the great profession of medicine, and to this one of its humble chroniclers?

How many medical warriors have achieved great triumphs, great distinctions, and now rest from their labors in glorious graves? How many are yet in the thickest of the battle—pioneers, leaders, heroes? How many that were strong, vigorous, eager, are now finding their “days but labor and sorrow,” so soon passeth all away? But, come weal come woe, there is for the recorder of all but one lesson, one duty—to write it all faithfully down, to be “the abstract and brief chronicle of the time;” to be accurate, loyal, temperate, just; to carry steadily one of the many standards of the profession, and to be true always to the inscription which this one bears—*Scientia et veritas sine timore*. So should it be; so may it be; so will it be, if the medical host before whom the standard is carried will make strong the arm of the standard-bearer.

PSYCHIATRY.—If there is any one work which is more wanted at the present time by the medical profession than all others, it is one on the subject of psychiatry; one that is simply, clearly, intelligibly written; one in which there is no evasion of the truth; in which the author is willing to openly confess ignorance, and not always trying to conceal this by hiding it amid a mere garniture of words. A work totally free from that great and very familiar folly of putting forth a pedantic technology in which to disguise a patent inability to indicate de-

monstrable truth. A work, in brief, in which the author will describe in plain, simple, intelligible language, what he can prove to be the truth, and in which he will, when it is incumbent upon him to do so, openly confess his ignorance, and that of the specialists whom he seeks to represent.

Such a work would be bought by almost every physician and attorney in this country. It is the great want of the medical and legal profession, and one which is to-day wholly unsupplied.

It is a great mistake, and a very common one, to try and build up a peculiar technology for the department of psychiatry; to cultivate peculiar forms of expression for the delineation of ideas germane to the subject; to take very simple ideas, and to so enwrap them with words, that to understand what is presented for inspection one has to strip away this foolish verbiage; very much as one strips away the endless folds of cere-cloth in his examination of an Egyptian mummy, the results in each case being often identical; to find thus buried away a little something all too insignificant to reward one for such serious labor. The present language of psychiatry is ludicrously stilted, and the harvests of psychiatry poverty-stricken and barren.

With these facts so familiar to all there is no specialty in which its representatives are so egotistical, so vain, and so conceited. As a rule they take or mistake very often mere words for ideas, dogmatism for demonstration, and assertion for proof. A very small idea dressed up in their bombastic word-livery, they hail as something marvelous and great, and if it really be appreciable in the scales of common sense and reason, the unusual fact is heralded with endless reiteration and ludicrous exultation.

The fact is that the pretension of psychiatry is a stupendous bubble which needs but the most insignificant prick to have exposed the contained gas, and to have secured an inevitable collapse. One has but to remember the memorable trial of Guiteau to appreciate this fact, and to feel how almost hopeless is the claim that is made for psychiatry as a science. Did it possess but a fraction of the truths and the strength which are claimed for it, thousands would be found studying and pursuing it, where but a tithe of such numbers are to-day its noisy representatives. It is a great mistake for "psychiatrists" to assume that it is difficult to understand and to weigh the substance of psychiatry. Hundreds who could be and would be leaders in this field turn from it, because there is not in its domain sufficient to warrant labor and cultivation. And what is really understood by any of its representatives is certainly easily comprehensible to almost any one of common sense.

To assume that the comprehension of all that is comprehensible in the teachings of psychiatry is difficult, is irrational and indefensible. Certainly, if those who are admitted by their brethren (in the specialty of psychiatry) to be experts are to be taken as the standard of mental strength and professional acumen sufficient for the accomplishment of scientific results, it is a libel indeed on the profession to claim that its average members are not fully equal to the attainment of similar position. What is really comprehended by the psychiatrists of to-day is comprehensible by nine-tenths of the profession; though, if one were guided by the pretensions of modern psychiatry, it would be regarded as folly or impudence to make such a claim. The trial of Guiteau, and the records of many cases since, have removed the veil that was once inviolably worn, and the mask which concealed so much, and misled so many, has been thoroughly stripped away.

But it is proper to illustrate the truth of what is here urged, and not simply to deal in general declaration. There are four recent works on one of the branches of psychiatry—insanity. Their authors are Hammond, Mitchell, Hamilton and Spitzka. One has but to examine these volumes cursorily to find endless antagonism, inconsistency, contradiction, and ambiguity.

The last-named author discusses the views, classifications, definitions and opinions of his contemporaries. And it is painful, if it were not ludicrous, to read his comments and criticisms. One reads constantly such expressions as these—"this is sheer folly," "this is absurd," "this is ridiculous," "this is erroneous," etc. After so magisterial a disposition of all of his competitors, seniors, brethren, etc., the reader feels that he has at last met with a master—one who is *facile princeps* in this exalted and mysterious domain—and he rests secure in the fond belief that all of his difficulties and trials in the study of psychiatry are, with such a guide, absolutely at an end. And so he trusts his great teacher, and confides in him, and looks with certainty to having all the crooked paths made straight and the rough places made plain.

First, he makes the crucial test of his author, and, with tender but absolute confidence, essays to make forever and preciously his own, this great author's definition of insanity. So, turning to the proper department of the work, he finds that his author, after having "set on" all presumptuous authorities, much as Don Quixote set upon the foolish flock of sheep, thus "lays down the law." He says: "Insanity is either the inability of the individual to correctly register and reproduce impressions (and conceptions based on these) in sufficient number and intensity to serve as guides to actions in harmony with the individual's age, circumstances, and surroundings, and to limit himself to the registration as subjective realities of impressions transmitted by the peripheral organs of sensation, or the failure to properly co-ordinate such impressions, and thereon to form logical conclusions and actions; these inability and failures being in every instance considered as excluding the ordinary influence of sleep, trance, somnambulism, the common manifestations of the general neuroses, such as epilepsy, hysteria, and chorea, of febrile delirium, coma, acute intoxications, intense mental preoccupation, and the ordinary immediate effects of nervous shock and injury."

If this distinguished author knows what he means (and no one can suppose so), it is very certain that no one else does. It may be said, however, that if he has not achieved the high object in view, he has certainly accomplished what no one else has achieved, in having written the longest, the most unintelligible, the most foolish, and the most absurd sentence in general or medical literature. It is the instinct of most men to be imbued with the spirit and wishes of Paul, in desiring to sit as a pupil at the feet of Gamaliel, but it is not rash to say that if Gamaliel had launched at his fond pupil so formidable a missile as that just delineated, it would have required more than the apostolic love and charity of Paul to have prevented his fleeing in a state of consternation and dismay.

But why consume space in illustrating the truth of what has been urged, that even among those claiming to be experts in psychiatry, there is endless confusion, antagonism and contradiction? Is the fact not so written, in the secular and professional literature of the day, that "he who runs may read," and that, in correctly reading it, "the wayfarer, though a fool, may not err therein?"

THE THERAPEUTIC VALUE OF BICYCLING.—Dr. George S. Hull says, in the *Medical Times and Gazette*: "Concerning the therapeutics of the bicycle, it is not making too broad a statement to say that it can be recommended in nearly all cases where horseback riding is indicated, the exceptions being ladies and very old or crippled men, and for most of these the tricycle is still preferable to the horse, and certainly infinitely safer. In horseback riding the inexperienced rider gets the most exercise (jolting, which is not always beneficial), while the skilful horseman merely gets the pure air, and very little above the usual amount of that, as his circulation and respiration are not much increased by the easy,

quiet motion his *skill* as a horseman gives him. In fact, after learning to 'ride horseback,' it often becomes tiresome, the exhilarating effect passes off, and the good results consequently diminish. In bicycling, however, the whole body is in motion, and every rider gets a like amount of exercise. The circulation is quickened to any extent; the blood-vessels of the limbs are not compressed to the extent they are in horseback riding; there is but little or no jarring; the muscles of the trunk and upper extremities (which, as a rule, are so imperfectly developed in physicians), are brought more into play, and the mind kept actively engaged in the sport—for sport it becomes, even when flying along to a 'terrible accident,' or to a death-bed scene."

NOTE.—There is no one who really knows how to ride, who knows his horse, and whose horse knows him, that will read the above paragraph without a smile. The fact is, one who is at home in the saddle can ride all day without fatigue, it is only the novice who suffers. Again, the horse is company; indeed, he is a companion; he loves his rider, and his rider loves him. There is dire solitude on the best "cycle" that is sold. It is a grotesque condition and position for a man; and still worse for a physician, who, at best, is not too dignified for his work.

It is, too, impossible to believe that the rider of the "cycle" is not fatigued, and sorely fatigued. When one rides fifty, or even a hundred miles a day (some have ridden 250 miles in 24 hours), propelling himself over every foot of the way, it is impossible to avoid fatigue, and very great fatigue; far, very far greater, than is possible with an experienced rider on horseback.

It is on account of these absolute facts, that the "cycle" is not generally adopted. If a tithe that is said of it were true, they would be seen on every highway, whereas the "wheelman" is still a curious, rare, and amusing spectacle.

As to putting ladies on a "cycle," who that loves woman would see her thus? A beautiful woman on a good horse, one that loves her, as every good horse (like every good man) does, is the most beautiful picture on earth—with her tresses afloat on the breeze; her face and lips all carnation from the exercise and the air; with her eyes sparkling, and her long flowing robes all but sweeping her path—where is the man, that is good for anything, who would not, all bent low, and with lifted hat, feel that he was looking upon the most perfect picture of earth? A picture too perfect to spring from any but an Architect as divine in execution as He is sublime in conception.

Is there any real man who would substitute for this a creature with "divided skirts;" with man's poor garniture protecting her limbs below; with her knees alternately and painfully working up and down like the piston of a pump; and her pathway like that of an Ohio steamer at low water? And who would see thus "old ladies" and "crippled men?" Indeed; no! never—leave the "cycle" to the athletes and the "wheelmen." Woman must have the horse, and man, greedy creature, must have both.

TRANSACTIONS OF STATE MEDICAL SOCIETIES.—It may be useful, at the commencement of a new year, when so many are seeking to "turn over a new leaf," to say something in regard to this old and familiar subject.

In almost every State the "State Medical Society" is sufficiently active and vigorous to meet once a year and to publish, in book form, the transactions of each meeting. A copy of these transactions is sent to every respectable medical journal. Every medical journal is not only willing but anxious to say something in praise of these volumes, and to help along the good cause of State medical organizations and State medical literature. Yet, if one examines the eighty medical journals published in this country, it is rare indeed to find any one of them containing more than the briefest allusion to this interesting sub-

ject. Such volumes are mentioned only by title in the list of "Books and Pamphlets Received."

What is the cause of this significant fact? Of course there is a cause for it, and a strong cause; everywhere felt and everywhere apparent. What is it?

It is that usually in the minutes of the meetings there is little of interest to any but the members of the society, and that the papers read and published do not contain material worthy of mention or even of recapitulation. As a rule, they were prepared either by request, and at the last moment, or they were presented because their authors wished to have some little prominence in the hall of meeting and in the volume of transactions.

It may be asked, that if these unpleasant facts be true, Why did the "Committee on Publication" ever publish such papers—papers that injure the committee, the authors of the papers, and the society which issues them? The answer is, as every reader knows, that it is rare indeed to find a committee whose members have "the backbone" to reject papers sent to them. Most of these members have "aspirations," and hope at some future day to become officers of the society. To effect this result votes are required, and authors of the worst papers possible have still the power of the franchise.

Some may cry "Shame!" "This is an outrage on the profession." "It is libellous," etc. But be this as it may; whatever be said, the reasons here given are true; all know that they are true; all truthful men will say that they are true, and as to the rest, who cares what they may say?

There's another reason for these discreditable volumes published. It is that there is a pernicious custom for each one who has a paper to read to move that the paper of his predecessor be published, and as the society has not "backbone" enough to vote this down, each motion is carried, and the dire result is achieved. The society is then and there made to father every "monster," or "abortion," or "premature birth" that is cast forth upon the world. The transactions manifest what Carlyle termed "the dead level of mediocrity," and so either become the prey of the "waste-paper man," or are given as fit food for kindling the winter's fires.

What is wanted to put an end to this crying evil, this great wrong, this professional shame? Something that is becoming very rare. It is popularly known as "backbone." No Body can stand without it.

THE MUSEUM OF HYGIENE AT WASHINGTON.—The Army Medical Department has already achieved a world-wide reputation for its work in medical bibliography, for its library and pathological museum. The Naval Medical Department soon bids fair to rival it in the direction of hygiene. It has already collected a library of over five thousand volumes, chiefly of works relating to sanitary science. Its museum of hygiene is growing, and already contains two hundred and sixty-four exhibits. The American Public Health Association has made it its permanent repository. The Surgeon-General requests contributions of articles, appliances, models, drawings, etc., illustrating improvements in food, water-supply, bedding, clothing, marine architecture, house and hospital construction and furniture; apparatus for heating, illuminating, ventilation, and removal of excreta and refuse; culinary, laundry, and bath facilities: appliances for physical culture and exercise; and whatever else tends to the preservation of health and the prevention of disease. The exhibits are properly credited, by descriptive labels, to the persons contributing them.—*Record*.

NOTE.—The above paragraph from the New York *Medical Record* embodies facts which the Surgeon-General of the Navy has, in various ways, endeavored to make known; and though the matter has already been introduced to the attention of the readers of this JOURNAL, the subject is so important as to justify a second mention of it.

The present Surgeon-General of the Navy has administered his department with great ability; the museum, the reports, and the official circulars, all bear the most abundant testimony to this fact. There is not a physician in this country who is not gratified at his record; indeed, it is something for the profession and the Government to be proud of; and it will be an absolute calamity for his tenure of office to be disturbed by any cause whatever.

THE COMMUNICABILITY OF PHTHISIS.—We are told on the authority of the *British Medical Journal* that the most striking and probably most valuable part of the work done by the Collective Investigation Committee has been that relating to the communicability of phthisis. One thousand and seventy-eight replies were received to the circulars sent out. Of these 673 were simple negatives, while 261 replies affirmed the proposition that phthisis may be communicated from the sick to the healthy, and afforded evidence in support of that opinion.

Out of these 261 affirmative replies 192 were accompanied with reports of cases illustrating the communicability from husband to wife, or the reverse; and in 130 instances it is stated that no family history of the disease existed in the parties to whom the disease was transmitted.

On the other hand 105 persons testified in their belief that the disease was not communicable.

The facts thus elicited show that a small proportion, probably less than five per cent., of general practitioners have met with evidence which leads them to believe that consumption is contagious. Considering the numerous sources of error in observations of this kind, we cannot consider that certainty has yet been reached. If consumption is contagious, it is very feebly so, and the simplest precautions ought to be sufficient to prevent it.

NOTE.—The above paragraph is from the *New York Medical Record*.

It seems strange that "collective investigation of disease" could command the confidence of so many physicians. When one remembers how many fail to make a correct diagnosis, how many fear to report their failures, and only their successes; when due allowance is made for the influences of diathesis, age, climate, employment, diet, and general surroundings, what is really the value of collective investigation? It is one of the meteors at present athwart the medical firmament; its pathway is bright and attractive, but there is only darkness to remain behind.

Nothing is so convincing in regard to the non-communicability of phthisis as the statistics of the Brompton Hospital for Consumption. So far the evidence is complete; the disease there is never contracted by the employees—not even the laundresses.

With such facts, and others on record equally good, what is to be said of the folly of the Wisconsin State Medical Society in warning the Public of "the contagiousness of phthisis?" *Marcus dixit: sed non ita est!*

NEW YORK CITY BOARD OF HEALTH.—Scientific and honest men will never cease to regret the displacement of Prof. Chandler, as Superintendent of this Board, this displacement being due to the weakness or corruption of Mayor Edson in simply refusing to nominate any one else, when the Board of Aldermen (!) refused to confirm the nomination of Prof. Chandler. Had the Mayor refused to nominate any one else, Prof. Chandler would have "held over," and remained in office. Instead of so doing, the Mayor withdrew the nomination of Chandler, and offered that of General Shaler, a politician, and one wholly unfit, by antecedents and education, for such a position. Every one suspected that there was some latent reason for all of this which time would reveal; and these suspicions have been quite confirmed.

“The Board of Estimate and Apportionment” reduced the amount of appropriations for the Board of Health so much, that six sanitary inspectors, paid each a salary of \$1,500, were discharged, thus reducing the outlay for such service \$9,000, while three new offices (chief sanitary inspectors) at \$3,000 each, were created; making the amount necessary for this purpose \$9,000. These offices were given to Mayor Edson’s son, Mr. Bullard, a harbor master, and the third to a brother of one of the Commissioners, Mr. Brennan. These offices are created, while six physicians, as sanitary inspectors, were discharged.

When General Shaler displaced Prof. Chandler, as President of the Board of Health, it was generally believed that there was political trickery, if not fraud, at the bottom of the change. It now appears that Dr. Cyrus Edson, the Mayor’s son, was to be provided for, as he gets one of the new offices. It is not, as the Mayor intimated, a question of deserved promotion, but of creating new offices in order to make “promotions.” In a similar way, Bullard is “promoted” from the position of harbor-master, from which he is soon to be ousted by the new law, to be one of the new chief inspectors. Without the slightest qualification for a place of the kind, he is to have professional experts report to him concerning matters of which he has no special knowledge. The third new chief inspectorship goes to Commissioner Brennan’s brother; and as an offset to this General Shaler’s son remains on the salary list of the Health Board, and his son-in-law gets an increase of salary as Secretary of the Fire Department!

This action created so much just indignation, that one of the Health Board employees was sent to the “Commissioners” to remonstrate, when the necessary \$9,000 were voted for the six sanitary inspectors who are to be retained; but the “chief inspectors,” who know nothing of their work, are retained at \$3,000 each! So “the job” in the Health Department is completed.

To understand the pretence of economy, under which this outrage was perpetrated, one has to glance only superficially at the appropriations made. For “sheriffs’ fees,” \$60,000 were asked, but \$72,000 given; for “election expenses,” \$163,400 were asked, but \$202,981 given; for “miscellaneous” (!) \$185,400 were asked, but \$496,841 given. That is to say, the “Board,” for three purposes only, gave \$323,022 more than were asked, and yet voted to have six physicians, as experienced sanitary inspectors, discharged, to save by pretence \$9,000; while \$9,000 were appropriated for three new offices, the incumbents of which know nothing whatever of their duties, and are only the favorites of political pettifogging jobbers. This is the reason that Prof. Chandler was not retained in office.

CORPS OF ASSISTANT EDITORS.—It seems that many medical journals are now passing through this phase of a medical journal’s life, and that all journals must be the subject of the editorial corps epidemic, just as all children must pass through their little epidemics of measles, mumps and scarlet fever. This JOURNAL had the malady sixteen years ago. It may be remembered that it had then the most brilliant corps of “assistant editors” whose names ever appeared on the title page of a journal—Samuel Henry Dickson, Alfred Stillé, W. H. Van Buren, T. G. Thomas, Louis A. Sayre, F. H. Hamilton, J. J. Chisolm, L. S. Joynes, Paul F. Eve, W. O. Baldwin, Theodore S. Bell, Stanford E. Chaillé, J. Dickson Bruns, etc.; a brilliant galaxy. But these distinguished physicians were all too overwhelmed with work in their own field of labor to be “assistant editors;” so, in all fairness to the profession, the claim (of a corps of editors) as unsustained by facts, was practically abandoned, and the names mentioned were withdrawn. Other journals have had a somewhat similar experience.

Some journals had the malady very severely—carrying little medical directories on their title pages. One medical journal of 60 pages had 75 editors; or

one editor and two-tenths of an editor to a page. Strange to say, judging from the appearance of that journal, only the fractions of editors seemed to do any work, the remainder of "the demnition total" (as Mr. Mantalini would say) believing that they had done enough towards editing a journal by simply giving their names! A view, by the way, not uncommon under such circumstances.

Even that journal which suffered so badly got better, however, and is now convalescent.

One of the weekly medical journals now issues 16 pages only, but has 25 editors, or one editor and five-tenths of an editor to a page!! The fate of the seventy-five-editors journal is, in a humanitarian and charitable way, respectfully commended to it.

The fact is that, unless an editorial corps really works, it is unjust to it, and to the profession, to array the names of those who compose it on the title page. Physicians have a vast deal more sense and acumen than many suppose to be the case, and when they see on the title page of a journal a long list of editors, who never do any work, it is the journal which suffers, and not the profession. It is the owners and editors who are deceived, not the Public. Indeed, it may be safely said that physicians judge of a journal, not by what they find on the outside title page, but by what is presented on the inside. *Verbum sapientibus.*

A HINT TO MEDICAL PUBLISHERS.—If publishers of medical books, in advertising them in their circulars, catalogues, and medical journals, would publish the unfavorable as well as the flattering reviews of them, such a course would induce physicians to receive such notices with confidence and respect. It is easy to cull, from eighty American medical journals, flattering notices of any medical book that the greatest simpleton could write and the most foolish publisher give to the public. *Audi alterem partem* should, at least occasionally, be remembered by book publishers in their advertisements.

Some of the journals went into beatific ecstasies over "Ranney's Anatomical Plates," "Dunglison's School Physiology," "Bartholow's Practice," "Hamilton on Insanity," and even over Miller's fraudulent "Clinical Lectures;" "but a few swallows do not make a summer." Medical book publishers must be fair; and if they pretend to give the notices of the medical press as guides, they should give them fairly.

THE *Archives of Pediatrics*, a monthly journal devoted to the diseases of infants and children (\$3 a year), edited by William Perry Watson, A.M., M.D., physician for diseases of children to the Central Dispensary, and assistant to Christ Hospital, Jersey City, N. J., commenced in January, 1884. The editor has the best wishes of this journal.

THE MODERN LANGUAGES ASSOCIATION.—The great teachers of the chief American literary institutions met in this city in December, and established, at least by vote, this new association. Every physician who has read the "proceedings" of these meetings cannot fail to have a higher respect for medical societies. These latter Bodies are frequently ridiculed as mere assemblages for the retailing of gossip; for festive "excursions" and "banquets;" for petty struggles for petty offices; for the purpose of advertising superficial speakers and debaters in the local newspapers, etc.; and while much of this criticism is just, as poor as these meetings often are, they are eminently respectable when contrasted with the late meetings of the great teachers of the chief literary colleges. It may be safely said that the poorest medical society that ever convened never indulged in such absolutely nonsensical debate, and in such perfect twaddle. Every American teacher and scholar must have been surprised, mortified and disgusted. The puerile inanities of the great men assembled were



marvelous and unprecedented. Medical society meetings in contrast are absolutely imposing. *Courage, mes frères!*—"things are not what they seem;" or men either.

CREDITS.—Every respectable journal endeavors to give due credit for all articles selected from its exchanges; certainly for all original articles thus selected. But some journal editors are so fussy and absurd that they wish to have full credit even for articles selected by themselves from other periodicals!!! It is difficult to imagine what credit is to be given to them for having extracted matter from other sources. They should read and remember the old nursery stave:

"Little Jack Horner sat in a corner,  
Eating a Christmas pie;  
He put in his thumb, and pulled out a plum, and said,  
'What a smart boy am I.'"

There are very many Jack Horners in journalism.

BURN-BRAE.—There is nowhere to be found a better institution than this to which to confide anyone needing treatment for mental troubles. The locality is unexceptionable for salubrity, good climate and healthfulness. The scenery is beautiful and varied. The buildings are admirably designed, comfortable, spacious and in perfect order. The superintendent, Dr. R. A. Given, is all that the friends of patients could desire, either in professional accomplishments, skill or experience; while, as a man, his kindness, sympathy and liberality are unvarying and unbounded. He has hosts of friends throughout the South and West, as well as in the Northern and Eastern States, and his "references" are unsurpassed. This is saying much for him and his institution, but it is only the truth, and it is all fully deserved. His assistant, Dr. Phillips, is worthy of the fullest confidence and respect.

PUBLISHED SIMULTANEOUSLY IN THREE CITIES.—Such is the announcement in regard to some of the exchanges. It is marvelous that any publishers could be so foolish as to suppose that any one could be silly enough to believe such a statement; or that publishers could wish anyone to believe them to be so foolish as to really do what they claim is done by them. Can any one suppose that a publisher, who is not an idiot, would publish a journal in three cities, and so triple the cost of publication? If these publishers mean that their journal is sent to three cities for distribution, the same may be said of almost every journal.

Physicians are willing to believe a great deal, but it must be something that can be believed. It sounds very grandly, and is quite imposing to say that a journal is "published simultaneously in three cities," until the reader knows that it is not; and then the statement need not be described. Its character is too apparent.

THE AFTER-HISTORY OF A CLASSIC "VOMIT."—Certain scientific journals have been giving their attention of late to the history of Jonah. One of them has pointed out that if the fish swallowed the prophet in the Mediterranean and threw him out again near Nineveh, he must have been carried through the Straits of Gibraltar, round the Cape of Good Hope, up the Persian Gulf, and into the Tigris.

A LESSON NEVER TO BE FORGOTTEN.—All who find in this JOURNAL a work worthy of their support, or a work that they wish to support, should remember

that what is most essential for it is a prompt contribution of that material aid, without which no journal can be punctual and vigorous. In seventeen years, the failure of the subscribers to remember this fact, *and to act upon it*, has been the chief cause of every trouble which the JOURNAL has had to endure. Will not every reader resolve that, so far as it rests with him, this trouble shall not be borne and this load shall not be carried? It saves each one the pain of reading reminders; painful to receive and far more painful to send.

DR. GEORGE T. ERWIN has resigned his position as Assistant Physician to the Central Lunatic Asylum of Kentucky. Dr. T. H. Clarke, of Hopkinsville, Ky., was appointed as his successor. The record of Dr. Erwin at the asylum mentioned is one of which any physician may be justly proud, and he carries with him in his retirement the respect and esteem of the entire profession.

MEDICAL MATTERS IN VIRGINIA.—At the next session of the Legislature efforts will be made to have a “sure enough” Board of Health; that is one whose members will be paid to do their work. Only in such a way can work be done. There will also be an effort made to establish a Board of Medical Examiners. All who read these notices should co-operate manfully in securing the enactment of such necessary and beneficent laws.

THE “TEXAS COURIER RECORD OF MEDICINE.”—This is the title of a new journal that has been commenced at Fort Worth, Texas. It is edited and published by Drs. F. E. Daniel and W. B. Brooks, of Fort Worth, at \$2 per year. It is an octavo of 69 pages, and presents an excellent appearance. The contents of the journal are excellent, and it is to be hoped that this Texas journal, after the failure of so many, will be a deserved and brilliant success.

AUSCULTATION FOR STONE.—It is proposed to connect the sound with the ear by means of a flexible tube like that of the stethoscope. The presence of the smallest stone is made strikingly manifest by this method.—*Ex.* [This device is ten years old.—ED.]

THE *Medical Student* is a new medical monthly, published in this city. It is edited and published by Dr. W. D. Mortimer as an eight-page double-column journal at \$2 a year. It contains matter of special interest to medical students, and is well edited.

THE *Northwestern Lancet* contains on its title page the advertisement of Dr. H. H. Kane, and a number of journals have issued the same advertisement. This is a great wrong to the medical profession and one that should be speedily corrected.

THE “ARCHIVES OF PEDIATRICS.”—The first number of this new journal, noticed elsewhere in this issue, has been received. It is prepared with great judgment and skill, and deserves a full measure of success.

IMPORTANT lesson to all writers, as given by Dr. Billings, U. S. A. :  
1. Have something to say. 2. Say it. 3. Stop when you have said it. 4. Give a proper title to what you have said.

MR. JOSEPH LISTER and Mr. William Bowman have been made Baronets. Well-deserved honors.

DIED, January 13, Dr. H. A. Dubois, of this city.

# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

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Scientia et Veritas Sine Timore.

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VOL. XXXVII.

NEW YORK, FEBRUARY, 1884.

No. 2.

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## ORIGINAL ARTICLES.

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ARTICLE I.—BLOOD CHANGES IN SYPHILIS WHEN TREATED BY THE FLUID EXTRACT OF STILLINGIA COMP.—MCDADE-KING FORMULA. By EPHRAIM CUTTER, M.D., New York.

One of the last if not the last paper of that magnificent surgeon and physician, Dr. J. Marion Sims, shows his character in the lustrous light of a simple, child-like, genuine love of truth, justice and helpfulness to others. The picture is briefly this. More than forty years ago Dr. Sims knew that the medicine men of the Creek Indians had the reputation of curing syphilis. Lately he revisits the scenes of his youth, and, eager for truth, he finds that a Mulatto slave, "Horace King," made the preparation used, stillingia being well known as a principal ingredient of the remedy. He found that Dr. McDade investigated the formula used by the Mulatto, and had brought it into pharmaceutical standing and recognition. Dr. Sims then comes out boldly in the *British Medical Journal*, tells all he knows about this Indian remedy, gives due credit to and associates his own great name with that of Horace King, the slave (!) and now the medical world knows or is supposed to know of the value of the Indian Creek remedy in syphilis. How few physicians would have dared to do such a thing to connect their names with Indian remedies! Most have hesitated and wanted to know what (Dr. Blank or Dr. Strong) men high in the profession and of leading reputation had said about it, and if they had given a favorable opinion then would they have out with the story. But to Dr. Sims, conventionalities were like cobwebs, or as the ropes of the Philistines to Samson. One would have thought that he would have wearied with professional matters in his long-life service, but he never did. His grand, simple-hearted soul was keenly alive to the truth, and the good that could be done with it to help others. His mind was ever young and strong in its grasp. His enthusiasm never flagged. He eagerly seized new ideas to the last. Only a short time before his death the writer knew a physician to show him a porcelain stem pessary. He seized it with eagerness, and sent a glow of encouragement into the heart of the inventor by saying: "There is nothing like this in the world. Give me one to show to doctors at Paris."

A few days before his death, happening to hear the writer speak of a new mode of denudation in the operation for ruptured perinæum, the idea was taken in immediately, and, with a cross questioning worthy of the bar, he elicited every detail, and begged as a favor to see the operation. With such teachable condescension, magnetic force, courage, courtesy and childlike-simplicity, it is no wonder that he died the most honored and appreciated surgeon and physician

of his country and age. In humble admiration of his example, the writer desires to add a word of corroboration to Dr. Sims' valuable and historic paper. There are some physicians who are familiar with the morphology of the blood in syphilis. By microscopically inspecting the blood of a syphilitic they make out a diagnosis of the disease at once, with a certitude unusual in human affairs. Besides this, they tell when the patient is really cured by noting the disappearance from the blood of the peculiarities of syphilitic blood. Indeed, no other physical sign of therapeutic inspection in this disease is more useful than that of the exploration of the blood by microscopical inspection. This may be denied by some—but this denial not at all alters the facts of the diagnosis and treatment of syphilis by the gentlemen referred to.

Now, the point desired to be made here is that the use of the preparation here named by syphilitics, known to be such by rational and physical signs (including microscopic inspection), has been followed by the disappearance of the physical signs of syphilis, including those furnished by inspection of the blood.

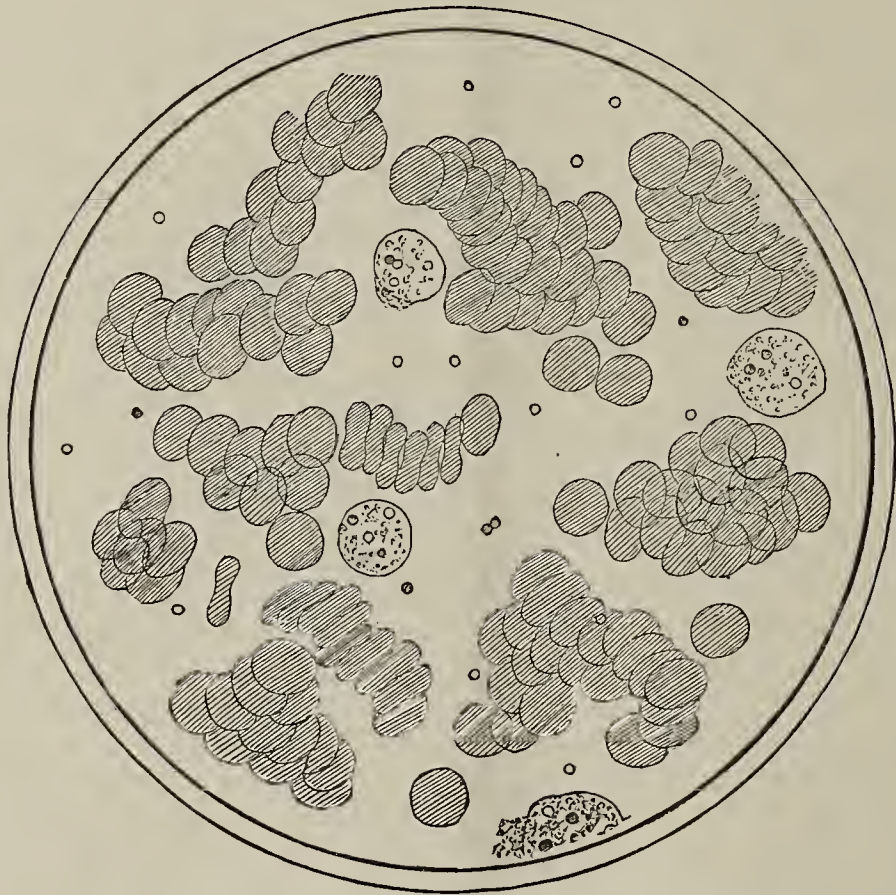


FIG. 1.—ROUGH DIAGRAM OF SYPHILITIC BLOOD SPORES.

Figure 1 is a rough diagram, and shows the blood of a syphilitic with the embryonal forms of the vegetative spores (*Crypta syphilitica*), which are the dots seen in the interspaces between the red and white blood corpuscles. In the diagram they are of course immovable, but in the blood just removed from the stream of a syphilitic, and viewed under a 1-16 inch first-class Tolles' immersion objective, appear as auto-mobile globes, active with life, skurrying hither and thither with the ceaseless playing motions of proto-plasmic life. They are highly refractive bodies, and when a little out of focus they are copper-colored. They differ from the spores of eczema, which are darker, almost black and immobile. In old cases these spores are found in the primary

sore (with the mature plant) and in the secretions for the most part. Occasionally the mycelial or fully-developed filaments of the plant appear in the blood—smooth, cylindrical, sometimes tapering, bent or curled in twists, one end blunted somewhat, and, where a little out of focus, reddish copper-colored.



FIG. 2 SAME AS FIG. 1, WITH *CRYPTA SYPHILITICA* SPORES REMOVED.

Figure 2 is a rough diagram showing the removal of the spores of the *Crypta* by the Creek medicine. The preparation the writer has used mostly is that of T. Metcalf & Co., of Boston, Mass. This statement is made not at their suggestion.

The physicians alluded to test their treatment of syphilis by watching for the total disappearance of the spores. If they can be detected in the blood the cure is not regarded as complete.

There are other agents and means that will eliminate these noxious parasites, but as the object here is to corroborate the important paper of the distinguished dead by a statement of fact, not opinion, there is no need of mentioning them here.

ARTICLE II.—A PLEA FOR THE PESSARY. By J. McF. GASTON, M.D., Campinas, S. Paulo, Brazil.

The deviations of the womb from its normal position in the pelvis result from various causes, and are accompanied by modifications of the neighboring parts, which are interpreted differently by gynæcologists.

The displacements of this organ, when sufficiently marked to be easily recognized, as prolapse, anteversion or retroversion, are generally associated with impairment of the tonicity of the surrounding structures, and depend in part upon a diminution of nerve power in these tissues.

As I have to deal with the fact rather than the theory of the disturbed relations of the womb with its ordinary supports; it does not become me to speculate, nor does it devolve upon me to point out precisely in what the want of co-ordination consists. Yet it may be safely assumed that there is a lack of vital energy in these parts, upon which the ordinary and proper position of the organ depends.

Whether we incline to the view of Hamilton, that the trouble is to be referred to the bladder, rectum and pelvic muscles, or to that of Ashwell, Churchill, West and others, that it is a combined result of the relaxation of the uterine ligaments and the vagina, we must still accept the view of Hohl, that any or all these changes spring from diminished vital power.

The origin of the relaxation in the fibres composing these different parts consists in the want of tone in the nerve element of these tissues, and we must seek for an explanation of the difficulty in an alteration of the dynamic influence on the part of the nerves which regulate the contractility of muscular and ligamentous structures associated with the womb.

In the cases of violence by which sudden displacement is produced, there can be no such preliminary condition:

Yet the persistence of this dislocation of the organ induces gradually and insensibly the deterioration of tone in its surroundings, which accomplishes eventually the change in nerve power, which is a primary modification, under other circumstances, of what is to be considered causative ordinarily, because a consequence in this piecemeal operation of the displacement.

The preliminary condition for the deterioration of the contractility in the muscular and ligamentous tissues being impairment of nerve power, we are prepared to understand what must be its counterpart, and to appreciate the elementary principle of recuperation. It is essential to regain the original constitution of the healthy nerve supply to all the co-ordinate tissues, as a prerequisite for restoring the normal condition of the different parts upon which the womb is dependent.

The replacing of the organ in its proper relation to the surrounding structures cannot afford relief without at the same time imparting the appropriate vital energy to those tissues with which it is associated in the pelvis. While measures should be adopted to maintain the womb *in situ*, our attention must also be directed to a rehabilitation of the parts correlated with it in its vital manifestations.

We may prop up a tree which has been blown down, but if the dirt is not drawn about its injured roots, and water is not applied to favor its nourishment by the soil, it will wither and die. So it is with the support of the womb by mechanical means, and they must be accompanied with proper nutrition of its vital supports. The relaxed and dilated walls of the vaginal canal need to be restored to their proper state of contractility, which is not consistent with the use of any foreign body within its cavity that shall keep up distension of its tissues. It is not to be inferred from this injunction that I regard this canal as indispensable for retaining the womb in its position. All who are familiar with the location of the perinæum and the division of the recto-vaginal septum, must have observed cases in which the support of the vagina is entirely destroyed without leading to any material descent of the womb. And still less can the integrity of this canal influence the deviations, anterior and posterior, of this organ. Yet the complete restoration of the tonicity of this canal is a factor of importance as a concomitant of correcting the prolapse of the womb, and hence to be secured, if practicable.

Other elements of support, doubtless, contribute more to maintain the womb *in situ*. This must depend to a great extent upon its lateral and antero-posterior fastenings within the pelvis. The broad and round ligaments, with the

reflexions of the peritoneal membrane from the bladder over the fundus extending to the rectum, with its attachments to the concavity of the pelvic basin, must contribute materially to resist the weight of the superimposed intestines. The action of the diaphragm in vomiting or in coughing tends to depress the womb in the pelvis and even forces it down in the vagina, but its elastic fastenings seem to restrain this impulsive influence, so that it recoils upon the removal of such pressure. In making an examination per vaginam, while the patient is coughing, it is notable that the finger placed in contact with the os tinæ is thrust downward at each contraction of the diaphragm from the force exerted upon the womb. But the organ immediately regains its original position upon the cessation of the act of coughing, and this must be attributed to the elastic contractility of its supports from above.

Should these connections lose their property of contracting, the organ becomes depressed, or deviates anteriorly or posteriorly from its normal position, so that without the co-ordination of forces in the attachments of the womb there cannot be stability in its relations to the surrounding structures.

Thus we have a key to the nature of the change to be effected in maintaining the organ *in situ*, and while mechanical measures are resorted to for connecting the position, they must not interfere with the appropriate vital capacities of these tissues.

It is practicable to adjust an apparatus of such form and in such a manner as to retain the womb in its normal relations to the surrounding parts, and at the same time allow the proper discharge of all the functions pertaining to those parts, so that the enfeebled organism may regain its natural vigor.

To afford the requisite support to the organ is a simple mechanical proceeding, but to reinstate the tone of the co-ordinate structures, so that it may be kept in its place after the artificial prop is removed, is the desideratum for the gynæcologist. If any plan is feasible for carrying on *pari passu* these two processes, it should be adopted in preference to any course which lacks these characteristics of efficiency.

Such a staying up of the womb as is compatible with a permanent restoration of its natural support is alone entitled to our confidence.

All practical observation confirms the utility of a masterly inactivity on the part of the patient for the correction of the lesser deviations of the womb from its normal relations. But there is quite a diversity of opinion among professional men as to the expediency of continuing the recumbent position for any considerable period. In the extreme cases of prolapse or of procidentia, there is no alternative but to maintain the horizontal position for a time after the reduction of the organ, so that it may accommodate itself to the change.

But it is evident that the patient cannot regain strength of body and elasticity of fibre in the lying position so advantageously as when allowed freedom of action, and hence it is important that our treatment may be so conducted as to admit of exercise to a limited extent in the open air.

I am not disposed to urge any effort which may tax the strength of the patient, but that in proportion to the capacity for action exercise will be advantageous, and some form of pessary must be worn.

ARTICLE III.—REPORT OF A CASE OF OVARIAN TUMOR. Read before the Central District Medical Association," of Kentucky, July 18, 1883, by J. M. MEYER, M.D., A.M., Danville, Ky.

On June 21, 1883, Mrs. A. M. submitted to abdominal section for ovarian tumor. History: The patient is of a delicate frame, sanguino-nervous temperament, never having robust health, but of active habits, with a well-disciplined mind; for many years a successful school teacher; for three and a-half years married; the mother of one child, now one year old.

During her menstrual life, her periods have been generally regular, with no marked abnormalities.

The precise date of this ovarian trouble is not known, but is supposed to have set up during gestation.

Early in her pregnancy she was seriously threatened with miscarriage; but, by perfect rest and the judicious use of opiates, these passed away, and gestation went on to that time.

The confinement was tedious, and resulted with a slight laceration of the perinæum, an event liable to occur in any one whose marriage is delayed to 30 years. After recovering from her confinement, which was on the 11th of July, 1882, it was noticed that there was marked development of the abdomen, with prolapsus of the uterus, which was supposed to result from a torn perinæum. On the 21st of September, it was determined to operate upon the perinæum, Drs. Jonstone and Bogle being present. The anæsthetic being administered, it was thought best to make a thorough examination (prior to the operation), which soon discovered an ovarian tumor of considerable size. The operation was abandoned, the patient aroused, and the true nature of her case explained. Subsequently ten pounds of fluid were drawn by aspiration, completely emptying the sack, an examination of which made sure the diagnosis. A tonic course of treatment was followed, with a view to be well prepared for an operation upon a refilling of the sack. The patient did well, no refilling took place until April, when it made rapid progress. Frequent examinations were made, a consultation called, a free candid disclosure made, and the operation determined upon. The menstrual period being now due, ten days' delay was had for recovery and preliminaries.

On June 21, 1883, there were present, by invitation, Drs. C. H. Spillman and Son, Harrodsburg; McReid, Jonston, Fayette; Dunlap and J. C. Boyle, Danville, and R. C. Caldwell, of Bloomfield.

At a quarter to eleven I began the administration of the anæsthetic; some delays ensued from nausea and vomiting, but the patient bore it well and was kept under its influence for two hours.

To Dr. Jonstone was assigned the surgical department; to the other gentlemen the various details incident to the operation. The cut was made in the median line, one inch below the umbilicus, and extending four inches; the cavity entered. Exploration discovered no adhesions, the left ovary being involved, a trocar was plunged into the sack and fluid drawn off, the tumor withdrawn, the pedicle transfixed and secured with silk ligature, excised and dropped into the cavity. Search was made for the other ovary, which was diseased also, this being ligated, removed, and the stump replaced. All bleeding vessels being secured, the abdominal cavity was thoroughly washed with pure hot water, the stumps re-examined, and the incision closed with eight silk sutures, the wound packed with absorbent cotton held by adhesive strips and a broad binder.

For twenty-two hours the patient suffered from extreme nausea and vomiting. Reaction was promoted by the liberal use of bottles filled with hot water and placed about her body and extremities. In 24 hours the temperature ran up to  $102^{\circ}$ , pulse 120. These gradually subsided to the normal in a week. The appetite gradually returned. Warm drinks, generous soups, whiskey toddies, were used for four days, when a more solid régime was resorted to. Sleep was promoted by an occasional opiate. The bowels were opened on the fourth day by salts in broken doses. On the sixth and seventh days, a dose of calomel and Dover's powder were given, with the happiest effect. On the sixth day each alternate stitch was removed, followed by a drop of pus. On the eighth day the remaining ones were removed, the wound being healed. For a week Dr. J. and myself were alternately present, without an unfavorable symptom. We were jubilant!

But now, cold extremities, clammy sweats, loss of appetite, temperature at



103° ensued. What is the matter? Malaria is suspected, and quinine is liberally used. For ten days the bowels were constipated, the tongue white, anæmic, and temperature 103°. Quinine in 20-grain doses was given, followed by 10-grain doses of calomel each night for two days, when the bowels were freely evacuated, followed by a return of appetite and a subsidence of temperature. During this time some pelvic cellulitis ensued, which was treated with the hot vaginal douche every four hours, which soon brought about absorption. At the close of the second week our sky began to brighten, which has resulted in perfect recovery.

Remarks.—Ovariectomy has opened the field to abdominal surgery. To-day there is not an organ within the abdominal walls that may not be explored with safety. Surgeons are justified in entering this cavity in search of occult and difficult facts in diagnosis. Already the kidney, the spleen, the uterus, nay, almost every organ, has been excised with perfect recovery. And what is not within the power of enlightened surgery? We have seen the beginning, but who will see the end?

ARTICLE IV.—BIOGRAPHY OF DR. J. MARION SIMS. Read by J. M. TONER, M.D., at the Sims' Memorial Meeting of the Medical Society of the District of Columbia, in Washington, D.C., November 21, 1883.

James Marion Sims, M.D., was born in Lancaster District, South Carolina, January 25, 1813, and died suddenly of heart disease at his residence, 267 Madison avenue, New York, November 13, 1883. He was a descendant of the great Scottish chieftain Rob Roy MacGregor. His birth-place was in the vicinity of the dividing line between North and South Carolina, near where President Andrew Jackson first breathed life. Having received a good preparatory education at the common school and from private tutors, he also became well grounded in the classics and acquired a knowledge of French, which he spoke and wrote with readiness. At a suitable age he entered South Carolina College, and graduated in letters in 1832. His medical studies were pursued first in Charleston, South Carolina, then in Philadelphia, Pennsylvania, where he received the degree of M.D. from the Jefferson Medical College in 1835. The following year he began practice near Montgomery, Alabama, and a year later he removed to that city, where he acquired a large and lucrative business. In 1845 he communicated to the profession some new views on "Trismus Nascentium," which he published in the *American Journal of Medical Science*, in 1846, and a second paper on the same subject in 1848. In following the professional labors and life of Dr. Sims it should be borne in mind that he was scholarly and well-read in his profession, a good general practitioner, a careful diagnostician, and a fearless and dextrous surgical operator, before he developed the specialty of gynæcology. Although this is well-known to the older members of the profession, it is fully manifested by the subjects which early engaged his attention as an author. His first five contributions to medical literature were upon diseases and operations of interest to the general practitioner and surgeon. It was not until 1852 that he published any account of his discoveries and operations, which he followed with such an amount of success, and which justly brought him such distinguished honors.

In 1845 his attention was especially called to the subject of vesico-vaginal fistula, which previous to that time had been much neglected by surgeons, or deemed incurable. Dr. Sims conceived the idea of relieving these victims by a surgical operation. To this end Dr. Sims established at Montgomery a private hospital into which he received patients suffering from this accident, and after many efforts and modified operations he, in 1849, fully established the fact to the profession that his operation was a success. The devotion and earnestness with which he pursued this branch of surgery led to the invention of a number

of new and important instruments and devices to accomplish the results desired, some of which bear his name. Among them is "Sims' speculum" and the use of "the silver wire suture," which instead of the silk thread was of great value. Subsequently he used the silver wire suture in all operations where sutures were required. Owing to unceasing toil his health failed in 1850, and in 1851, while confined to his room from his severe and protracted indisposition, which he and his friends feared would terminate in death, he wrote his famous paper on "Sims' Operation for Vesico-Vaginal Fistula," which was published in the *American Journal of Medical Science* for January, 1852.

The good results which had been obtained in his hospital for the especial treatment of diseases and accidents to which women are liable, reports of which were, from time to time, published in the medical journals, awakened in the profession much interest, and patients were sent to consult Dr. Sims from all parts of the country.

A change of climate, on account of his health, as well as to find a larger field for professional work, led him to remove to the City of New York in 1853.

Although his health was not fully restored, he, with the encouragement of some of the leading physicians, within a year commenced the founding of a woman's hospital in that city, which through his energy, efficiency and surgical skill, and under the patronage of some forty of the first ladies of New York, became, in 1855, an established fact.

To bring the subject directly before the profession of the City of New York, Dr. Sims determined to deliver an address to the profession and the public on the necessity of a hospital for women. The following is a copy of the call which was published in the leading city papers :

"Lecture on the necessity of organizing a great Hospital in this city for the Diseases Peculiar to Females. The undersigned will deliver a lecture on this subject at the Stuyvesant Institute, No. 659 Broadway, on Thursday evening, the 18th inst., at 8 o'clock. The medical profession and the public are respectfully invited to attend.—J. MARION SIMS, M.D., 77 Madison avenue."

From the *New York Tribune*, May 17, 1854.

As this was a most important juncture in the professional career of Dr. Sims, we will be pardoned for referring to the effect of the lecture, as he chose to call it, upon the profession and the public. The *New York Post*, and also the *New York Times*, on the morning of the 19th, each had brief notices of the meeting, thus cautiously commending its objects :

The following is from the *New York Times* of May 19, 1854 : "Dr. Sims on a Hospital for Females.—In spite of a heavy shower that fell just at the hour when the meeting was announced to open, the lecture room of the Stuyvesant Institute was nearly filled last evening with persons who were present to hear Dr. Sims on the reasons why a hospital should be established in this city for the treatment of the diseases peculiar to females. A large proportion of those present were physicians. Some of the 'solid men' and a number of ladies were in attendance, too. The doctor spoke with great earnestness, and directly to the point, at times becoming eloquent with his subject.

"He aimed, by the history of a Southern institution with which he had been connected, and its results, to show how much might be done in this city, and how great was our need. The attention was undiminished to the close, and it was evident that the right impression had been made.

"On sitting down, Dr. Griscom, of New York Hospital, after a few complimentary remarks, moved that those present organize themselves into a business meeting, and nominated Dr. Edward Delafield to the chair, and Dr. Edward Beadle as secretary, which was seconded by Dr. Gardner, and which motion was unanimously confirmed.

“Dr. Griscom, in the course of his remarks, said that the interests of humanity united in demanding such a hospital. He remarked that a large percentage of the cases of insanity in our insane asylums is due to the neglected diseases of females.

“A resolution of thanks to Dr. Sims was unanimously passed, and another resolution approving of the project, and that a committee of ten persons—five physicians and five laymen—to devise ways and means to accomplish it be appointed, was also passed.

“The committee is to be named by the President, and hereafter through the press. Meanwhile the project will be discussed by the profession, and we trust not ineffectually. The labor of establishing a new hospital in this city is not a trifling one. But there is a demand for more hospital room for these special diseases—a most urgent demand. We trust that the benevolent will turn their attention this way.”

The project and the address is commented upon in the *The American Medical Monthly* for June, 1854, p. 479, in the following language: “On the evening of the 18th ult., 1854, a number of professional men and others, about two hundred, among whom were conspicuous five ladies, attended the Stuyvesant Institute by invitation, to hear Dr. Sims’ argument in favor of a hospital for the reception and treatment of diseases peculiar to women.

“The lecturer traced the history of his operation for vesico-vaginal fistula, and related in a pleasing and effective manner the various steps by which he had attained progressively to the present excellence in the performance of this great achievement in curative surgery.

“It was a striking narrative. The obstacles and difficulties he encountered, and from every quarter the failures and disappointments which mortified but did not subdue him, the discouragements of friends and the sacrifice of time, money, bodily and mental labor, would have been sufficient to defeat a less resolute will, to try a faith not sustained by the soundness of principles which directed him, and the sufficiency of the science on whose altar he was laboring to place the trophy of perseverance, ingenuity and devotion.

“At the conclusion of the lecture, Dr. Delafield was appointed chairman of the meeting, and Dr. Beadle secretary, when two resolutions were unanimously passed, one expressive of accordance with the views propounded by the lecturer, the other appointing a committee of ten, comprised of five medical men and five lay members, to devise a plan for accomplishing so desirable an object as the establishment of the institution then so eloquently advocated.”

The committee of ways and means was composed of Drs J. W. Francis, Valentine Mott, Alexander H. Stevens, Horace Green, J. Marion Sims, Peter Cooper, Hon. Erastus C. Benedict. An appropriation of \$2,500 was obtained from the City Council, with which, added to funds raised by the ladies, a house was rented for temporary use, and the hospital opened in May, 1855.

The *New York Medical Times* for June, 1855, p. 368, has the following: “Woman’s Hospital.—A building on Madison Avenue, No. 83, having been rented for the purpose of this institution, it was formally opened on the 2nd of June, 1855, being the first hospital of the kind in New York. Dr. J. W. Francis, one of the consulting physicians, presided, and delivered an appropriate address commendatory of the object. The other prominent speakers on this occasion were Drs. E. H. Dixon (of the Scalpel), D. M. Reese and Horace Green. There were at the time nineteen patients under treatment.”

Dr. Sims had been elected attending, and Drs. Mott, Stevens, Francis, Delafield and Green, a consulting board. The institution was patronized by patients from all parts of the country. The success attending the treatment given, and the important operations performed in it, speedily demonstrated its usefulness and the need for an enlarged establishment.

During the sessions of the New York Legislature of 1857 and 1858, Dr. Sims, aided by influential gentlemen of New York City, obtained a charter for "The Woman's Hospital for the State of New York," and received from the city a grant of a block or square of some eighty thousand feet of ground, and an appropriation of \$10,000 to assist in erecting suitable buildings for hospital purposes near the Central Park, opposite Columbia College.

Dr. Sims made a careful study of hospital designs and plans, and finally recommended the pavilion system as the best suited to the purpose.

The first pavilion, with a capacity of 70 beds, was completed and occupied in 1866. Largely through Dr. Sims' personal efforts, and the merits of the work done in the hospital, aid was at different times obtained from the State to the amount of sixty thousand dollars for the institution. A second pavilion was opened in 1876, and the combined capacity of the two pavilions is two hundred and sixty beds. This hospital is at once a grand monument to the genius of Dr. J. Marion Sims, and to the humanity and medical progress of the age. In 1861 Dr. Sims first visited Europe, chiefly to study hospital construction and their sanitary requirements. His arrival was everywhere heralded with encomiums of praise for his valuable discoveries and surgical skill, and he received from the profession in all the large cities and hospitals of Europe such a welcome as has rarely or never been given to a medical man. He was pressed to operate in many of the leading hospitals, and by surgeons who themselves enjoyed world-wide reputations.

Dublin, London, Paris and Brussels were each in turn the theatre of his surgical triumphs. He operated in nine different hospitals in London, and perhaps a greater number in Paris. His successes were so noted and brilliant that he speedily received decorations from the Governments of France, Italy, Germany, Spain, Portugal and Belgium as a public benefactor. Indeed, he received two medals from the Government of Italy.

From France he received the Order of the Knights of the Legion of Honor, from Belgium the Order of Leopold I., and from Germany the Iron Cross.

Having returned in 1862, after a brief stay at his home, he revisited Europe, to place his children at school, but with the intention of returning to his practice in New York, which had grown to be large, responsible and remunerative. But as soon as it was known that Dr. Sims was again in Paris, patients flocked to him in such numbers from all parts of the world as to fully occupy his time, and rendered it next to impossible for him to refuse treatment, and it was not till 1868 that he again returned to New York and resumed his practice, his family remaining in London.

At the opening of the Franco-Prussian war in 1870, Dr. Sims happened to be in Paris, and was the prime mover in organizing what is known in history as the Anglo-American Ambulance Corps, and was made its surgeon-in-chief. The organization did good service at and after the battle of Sedan, which led to the downfall of Napoleon III. He was placed in charge of Mayory Hospital, with over four hundred beds, and served faithfully and efficiently for a month, when he resigned the position and returned to Paris. He was one of the escorts that attended Marshal McMahon from the field when wounded by a shell.

The incident was gracefully remembered and acknowledged by the Marshal, who gave him 1,000 francs to purchase delicacies for those confined to the hospital. A report of the services and operations of the Anglo-American Ambulance Corps was made by Dr. Sims' first assistant, William McCormack, now Sir Wm. McCormack, and was published in London in 1870. I am unable at this time to give a full list of Dr. Sims' contributions to journal medical literature. Whenever he wrote he had something to say which the profession was ready and anxious to hear from so original and able an exponent of the art

and principles of medicine. The following is presented as an approximate list of Dr. Sims' publications. Most of his writings have been translated and published in the French, German and Italian languages :

"An Essay on the Pathology and Treatment of Trismus Nascentium, or Lockjaw of Infants." 8vo. pp. 21. Philadelphia: Lea & Blanchard. 1864. From *Amer. Jour. Med. Sc.*, April, 1846, Vol. II., p. 363.

"Removal of the Superior Maxilla for a Tumor of the Antrum. Apparent Cure. Return of the Disease. Second Operation. Sequel." Illustrated by woodcuts. *Amer. Jour. Med. Sc.*, April, 1847.

"Osteo-Sarcoma of the Lower Jaw. Removal of the Body of the Bone without External Mutilation."—*Amer. Jour. Med. Sc.*, October, 1847.

"Further Observations on Trismus Nascentium, with cases Illustrating its Etiology and Treatment."—*Amer. Jour. Med. Sc.*, July, 1848, pp. 59 to 78.

"Further Observations on Trismus Nascentium, with cases Illustrating its Etiology and Treatment."—*Amer. Jour. Med. Sc.*, October, 1848, pp. 354 to 366.

"On the Treatment of Vesico-Vaginal Fistula." With illustrations.—*Amer. Jour. Med. Sc.*, January, 1852.

"On the Treatment of Vesico-Vaginal Fistula." A reprint. 8vo. pp. 28. New York. 1853.

"On the Treatment of Vesico-Vaginal Fistula." By J. Marion Sims, of New York, late of Montgomery, Ala. Philadelphia: Blanchard & Lea. 1853. Pp. 28.—A review in the *New York Med. Times*, December, 1853, p. 104.

"Two Cases of Vesico-Vaginal Fistula, cured by J. Marion Sims, of New York, late of Montgomery, Ala."—*New York Med. Gaz.*, January, 1854, p. 1, with an illustration.

"A case of Vesico-Vaginal Fistula, with the Os Uteri closed up in the Bladder; cured by J. Marion Sims, of New York, late of Montgomery, Ala., with an Illustration Exhibiting the Parts."—*Amer. Med. Monthly*, February, 1854.

"A case of Vesico-Vaginal Fistula resisting the Actual Cautery for more than Seven Years; Cured in Thirteen Days by the Author's Process."—*New York Med. Times*, May, 1854.

"Vesico-Vaginal Fistula of Seven Years Duration; Cured in Thirteen Days by Sims' Method."—From *New York Med. Times*, 1854; *Amer. Jour. Med. Sc.*, July, 1854.

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As Dr. Sims was a frequent contributor to the current medical journals, a more careful study will greatly increase the list. And he was an active or corresponding member of many medical societies in America and Europe, besides being an honorary member of the Edinburg, Brussels, Berlin, Christiania, Paris, and Dublin societies, a Fellow of the Obstetrical Society of London, and numerous other medical and scientific bodies at home and abroad.

He was a member of the Alabama State Medical Association, New York County and State Medical Society, New York Academy of Medicine, New York Neurological, Pathological and Surgical societies. Honorary member of the Connecticut State Medical Society, Virginia, South Carolina and California State Medical Societies.

Dr. Sims became a member of the American Medical Association in 1852, as a delegate from the Alabama State Medical Association; and in 1858 attended for the Woman's Hospital of New York. He also attended meetings of this organization in 1860, 1872, 1874, 1875, 1876, 1877, 1880, and was president of it in 1876. He was also a member and president of the American Gynæcological Society, and has contributed ably to its transactions. His skill and experience in the obstetrical art led to his engagement to attend the accouchement of the Empress Eugenie, of France, and also to attend the Empress of Austria. His practice in Europe was largely among the nobility, from whom he received large fees and valuable presents. The Doctor visited Washington City but a few months ago, and selected and purchased a most eligible site for a residence, and looked forward to the enjoyment of a home in this city a few years hence, when he should retire from active practice.

He was, when here, in apparently good health, and certainly looked remarkably well, but spoke of the necessity he was under as to being careful as to diet and exposure.

Wishing to avoid the rigor of our winters he proposed to visit Italy, and anticipated a delightful visit to Rome, where he spent last winter. Some three years since, Dr. Sims suffered from a severe attack of pneumonia, since which time, in cold weather, some unwelcome heart symptoms were from time to time observed. Hence, for the past two years, he has passed the winter months in the South of France and in Rome, and the remainder of the year in other parts of Europe, France, and the United States.

Dr. Sims was united in marriage, Dec. 21, 1836, to Eliza Theresa, daughter of

Dr. Bartlett Jones, of Lancaster, S.C., who, with seven children, survives him. His son, Henry Marion Sims, is in active practice, and most abundantly inherits the ability and skill of his father, whose memory the whole medical profession loves to honor, for by his genius the science and the art of medicine has been advanced as much, if not more, than by any medical man of the present century. Dr. J. Marion Sims' name will stand in the history of the progress and discoveries in medicine, associated with Harvey, Morgagni, Laennec, and other grand characters who have heroically and successfully devoted themselves to the science and the art of medicine for the benefit of mankind.

Biographies of Dr. Sims were published some years since in Johnson's "Universal Cyclopædia," in "Physicians and Surgeons of the United States," and in the *Virginia Medical Monthly*, from all of which the material for this sketch has been freely drawn.

An excellent portrait, engraved by R. O. Brine, from a photograph by Kurtz, was made some years since. It exhibits the Doctor at about the age of sixty, and wearing his decorations. It also contains a fac-simile autograph. A fine marble bust of the Doctor was, in March 12, 1880, presented by the surgical staff of the Jefferson College Hospital to the Alumni Society of Jefferson College. This Society has presented it to the trustees of the Jefferson College Hospital, and it now occupies a conspicuous place in the hall of that institution. In commemoration of the founder of the Woman's Hospital of New York, a fine marble bust of Dr. Sims was presented to the institution by Mrs. Russell Sage, a few days since, on the twenty-ninth anniversary. The bust was cut by Dubois, of Paris, and is a good likeness of the great apostle of gynæcology, and a splendid work of art.

Dr. Sims' funeral took place, in an unostentatious manner, from the Madison Square Presbyterian Church, where he was one of the oldest pewholders, on Friday, November 16th, and was largely attended by the medical profession and leading citizens of New York. The Rev. Charles H. Parkhurst, minister of the church, conducted the services, and eulogized the character and achievements of Dr. Sims in merited and glowing terms. The interment took place in Greenwood Cemetery. Peace to his ashes.

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## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

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STERILITY DUE TO CONTRACTION OF THE UTERINE CERVICAL CANAL. COMPLICATED OR NOT BY FLEXIONS OR VERSIONS, SUCCESSFULLY TREATED MECHANICALLY BY THE UTERINE BOUGIE.

Undoubtedly the most numerous cases of sterility are due either to a simple contraction of the cervical canal, or to such contraction complicated with one of the various flexions or versions of the uterus; and although treatment of the former by dilatation and the latter by pessaries has long been in vogue, patients and gynæcologists have shared their disappointments innumerable. Convinced that pessaries in women who have not borne children frequently give rise to irritation or inflammation, thereby adding another impediment to conception, Dr. E. A. Spooner, in *American Journal of the Medical Sciences* for January, 1884, states that he has long since abandoned their use in the treatment of these cases, employing such supports for patients requiring relief from prolapsus



or other displacements without regard to the question of conception. Fortunately, many cases of flexions or versions are amenable to the treatment of the uterine bougie, and when occurring as complications of a partial atresia of the cervical canal, the correction is readily made coincident with the dilatation, and he has been surprised at the ease with which long-existing and extreme flexions have yielded to the plan of treatment by bougies, which he describes in detail and illustrates with the histories of several successful cases selected from his note-book.

CLINICAL HISTORY OF A CASE OF RECURRENT DROPSY OF THE LEFT MIDDLE EAR, COMPLICATED, AFTER EIGHT YEARS' DURATION BY AN ACUTE ATTACK OF MONOCULAR OPTIC NEURITIS (CHOKED DISK) ON THE SAME SIDE, FOLLOWED BY GENERAL TABETIC SYMPTOMS.

In *The American Journal of the Medical Sciences* for January, 1884, Drs. Burnett and Oliver record this very rare case, which is as yet unfinished. They enumerate the four following factors of disease as being the cause of the patient's condition.

*First.* The early appearance in life of a polypoid growth in the right ear, which, upon being extracted, caused obliteration of the right auditory canal, and destruction of the contents of the middle ear. A partial loss of motility of the facial muscles upon the same side took place at the same time through peripheral traumatism; although this was not of sufficient moment to cause interference with their electrical reactions.

*Second.* A chronic catarrhal inflammation of the left middle ear, of an exceedingly rare and almost unique type. The peculiarity consisting in the formation and the retention of a sero-mucous fluid within the tympanic cavity, which required frequent evacuation, each operation being productive of a marked increase in audition. The tendency to the accumulation of the liquid at last ceasing, with a return of the power of hearing to a relatively normal standard, this being purely local in origin.

*Third.* This conclusion is divided into two probable conditions, there not being any proof of an individual or combined existence.

*A.* A chronic pachymeningitis, limited to the anterior two-thirds of the left base, involving a few of the nerve sheaths at their foramina; causing sub-vaginal oedema, with a consecutive neuritis and partial atrophy.

*B.* A new growth, very chronic in its development and course, situated in any part of the brain. The neoplasm causing pressure in all directions, with accidental passage of arachnoidal fluid through a few of the weaker foramina into the outgoing nerve-sheaths; this serous exudation producing incomplete choking of the nerve, followed by inflammation and atrophic degeneration.

*Fourth.* Sclerosis of the posterior columns of the spinal cord, the disease having advanced as far as the beginning of the stage of full development, without complication or extension of morbid process.

TREATMENT OF MELANCHOLIA.—Dr. J. G. Kiernan (*Detroit Lancet*, Detroit, Mich.,) makes the following remarks upon this subject: "Should the patient be removed from home? He should at all events be removed from the surroundings under which his insanity developed. To do this it may in many cases become necessary to send him to an asylum; but where he can be transferred from his home under tender guardianship, and can travel, this measure will not be found necessary. Cheerful surroundings, and encouragements to engage in pursuits different from those usual to the patient, will often prove of value. Cold sponging helps the deficient capillary circulation. Morphia and cannabis Indica are pre-eminently indicated. Glonoin and amyl nitrite are especially use-

ful in the atonic condition, and sometimes cut short the affection in the first stage. Tonics are of course indicated. When practicable, alcoholic stimulants are of great value. Conolly found sherry and egg to act well as a night-cap, and egg-nogg has very similar effects. Turpentine enemata often have good effects on the anæsthesia of the intestinal canal. Artificial feeding is often and pre-eminently indicated in these cases. The Davidson syringe, with a long tube, passed through a wooden gag with a large opening therein, is the best means of administering food. He has fed patients for months in this way. To prevent anæsthesia of the digestive tract occurring, the food should be given in small quantities frequently repeated. Egg-nogg alternated with beef-tea and egg is the best form of artificial food. All somatic complications should be guarded against. Emmenagogues should be given to amenorrhœic females. The muscles of the chest wall should be faradised, and, where practicable, massage performed. Constant watchfulness is required in all cases of lypemania. The patient should be induced to labor where close surveillance is practicable. In the first stage, conversation and surroundings of an intelligent, stimulating nature produce a good effect on the patient.

CONJUNCTIVAL OSTEOMATA.—Dr. E. J. Loring reports (*New York Medical Journal*) a case in a healthy and well-developed child of eight months. Just after birth, a small fold of "skin" was noticed in the upper and outer angle of the eye. This began to be more and more apparent until the child was five months old. It did not change during the last three months. The eye has never been red, except to a trifling extent, only at times over the fleshy protuberance, nor has there been any pain. The protuberance presented the appearance of a small oval cystic growth, midway between the outer angle of the eye and the edge of the cornea, and was in about the horizontal meridian. Not until the forceps touched the mass after opening into the fold was its bony or cretaceous character suspected. It was firmly attached to the conjunctiva above and at the sides, though it did not appear to be attached at all to the globe. The wound healed kindly, there only remaining at the end of the fourth week, when the child was last seen, a slight injection along the wound. The other eye was perfectly normal. The child has a slight nævoid-looking spot on each upper lid. The weight of the mass was 45 milligrammes; length, 8 mm.; width, 5.5 mm.; height, 2.5 mm. It was oval in shape, with the long diameter in the horizontal meridian of the eye. It was convex above and concave below where it rested upon the sclera.

HICCOUGH.—A. G. Vogeler (*Druggist*, December, 1883) says that hiccough arising from acidity of the stomach may generally be stopped, as is well known, by an antacid. Ether or chloroform is also good, but when of purely nervous character, the best remedy will be found to be tincture of castoreum in drop doses on a little sugar placed on the tongue and allowed to dissolve. Castoreum is much hooted at by modern practitioners, as also is lactucarium; but both drugs possess more therapeutical value than is now generally admitted. They will be rescued again from temporary oblivion, the same as many other half-forgotten articles of materia medica, and be again heralded as valuable remedies.

QUININE.—Dr. Young (*Practitioner*) gives the following indications and contraindications for the use of quinine: Never give quinine in antipyretic doses in cases where the bowels are confined and the secretion of urine is scanty. In cases where it is being administered and an increase of dose is desirable, this may be safely done if the skin, bowels and kidneys maintain their normal functional activity. In many cases of remittent and intermittent fever, the combi-

nation of the drug with ammonium chloride, or a potash or soda salt, is likely to be more easily tolerated, as well as more useful, than if it be administered in a pure form. During the administration of quinine, should a headache come on or increase in intensity, the case requires the most careful attention. NOTE—American doctors will never take Dr. Young as a guide. They could teach him for a decade.

DOUBTING INSANITY.—Dr. A. Tamberini (*Alienist and Neurologist*, January, 1884) says that in this psychosis: 1st. Side by side with a fixed idea which is accompanied by fears more or less distressing, and an overpowering impulsion to certain acts, consciousness of the absurdity of such acts usually remains complete. 2nd. In all there is an almost absolute impotence of the will, not only to control the absurd ideas, but also an irrestrainable tendency to those acts. 3rd. In almost all the cases there was a very conspicuous hereditary predisposition to psychopathic disorders. 4th. Of ten cases, seven were in females, and two in boys, in the period of puberty. The patients in general belonged to the cultivated and respectable class.

TABLESPOON CAPACITY.—The Paris Pharmaceutical Society (*Druggist*) recently resolved that, in place of defining the capacity of a tablespoon, it be proposed to physicians that when they prescribe a tablespoonful, they understand this term as meaning a quantity equal to fifteen grams of distilled water. The size of normal "drop-counter" (*comptegoutte*) was defined to mean that the diameter of the tube from which the drop falls should measure three millimeters; very volatile liquids should not be measured by drops. It would seem that some action of the kind might be adopted in this country. If the teaspoon and tablespoon are to be retained in medicine as definitions of quantity, it is obvious that some uniformity in capacity should be established. Once established, physicians could readily introduce the use of the regulation spoons either by oral recommendation to their patients, or specification in prescriptions. Dispensing by weight loses its every advantage by the prevailing crude method of administration.

A CASE OF AINHUM.—In *The American Journal of the Medical Sciences* for January, 1884, Dr. L. A. Duhring reports a case of ainhum, of which but few have been reported in our country. Its geographical distribution includes chiefly the West Coast of Africa and certain countries in South America, more particularly Bahia, Rio de Janeiro, and Buenos Ayres. As the disease becomes better known, it will, doubtless, be found that it is met with throughout our Southern States, though, probably, as one of the rarer diseases. Appended to the paper is an exhaustive study of the microscopic appearances.

OSTEOTOMY FOR BOW LEGS—Dr. W. H. Carmalt reports, in *The American Journal of the Medical Sciences* for January, 1884, a case of a child of five years in which there was marked outward curvature of the tibiæ and fibulæ of both legs, and in which he divided the bones, under antiseptic precautions, with excellent result.

ON THE TREATMENT OF HAY FEVER AND ALLIED DISORDERS.—In a very valuable paper on this subject in *The American Journal of the Medical Sciences* for January, 1884, Dr. Harrison Allen claims that the means of effecting the cure of this hitherto considered incurable disease is simply to overcome the tendency to obstruction in the nasal chambers.

The symptoms of hay fever are always associated with some degree of obstruction of one or both nasal chambers. A cause of this obstruction is dilatation of the bloodvessels. There is no doubt that the local phenomena are in

most instances the same, and that the multiform related symptoms, such as injection of the eye, headache, malaise, asthma, etc., are due to reflex vasomotor disturbances. But many patients report for treatment who exhibit swelling of the nasal mucous membrane, occlusion of the respiratory passages, and mucoid or semi-purulent discharge, without any of the related reflex phenomena. Yet a third and intermediate group exhibits perhaps a tendency to turgescence of the mucous membrane, together with one or more of the more common constitutional symptoms of typical hay fever. Indeed, there is nothing peculiar to the disease just named save its sharply defined periodicity, particularly in that phase of it where the periods of recurrence happen to coincide with the time of fruitage of certain plants, or the gathering of certain crops. In a small group of cases, where, in addition, other signs and symptoms become prominent which would invalidate the above propositions Dr. Allen is inclined to attribute them to mental impression—in some of the varied phases of hysterical or neurotic excitement.

Or the case may be stated in different language, as follows: In an imperfectly defined group of cases of nasal catarrh a sensation of sudden obstruction of one or both nasal chambers is a conspicuous symptom. This sensation is accompanied by a constant change in the chambers themselves, viz., engorgement of the membranes over the turbinated bones, producing pressure against the septum and occlusion of the respiratory passages of the nose. The sensations are recurrent, but vary greatly as to the time of the day or the season of their return. With some patients they are nocturnal, and are associated with the recumbent position; with others they occur after meals only; with some they occur in the summer season; with others yet again, in the winter. The sensations may be confined to either chamber, or be present in both. In aggravated cases they are associated with numerous reflex symptoms, among which may be mentioned lachrymation and hyperæsthesia of the conjunctiva, headache, and asthma. Patients having a disposition to obstruction during the summer and autumn report themselves as suffering from "hay fever;" while those having alternating attacks in the right and the left chambers report with "nasal catarrh."

The cases so far studied exhibit one feature in common, viz., that the inferior turbinated bones lie well above the plane of the floor of the nasal vestibule. In many persons, not the subjects of "hay fever" and allied disorders, the lower free portion, including, of course, the inferior border of the bone, lies below the plane of the floor of the nasal vestibule; and in ordinary inspection the inferior meatus is out of sight.

It will thus be seen that the mucous membrane, which is known to be the most erectile, is also the most exposed to irritation from extraneous substances, and to changes in the temperature of the surrounding air.

The conclusions to be drawn from the study of the six cases reported by Dr. Allen may be summarized briefly as follows:

1. That the treatment of all conditions of obstruction in the nasal chambers, no matter from what cause arising, can be successfully carried out by destroying the causes of obstruction. If the cause be an overgrowth of bone-tissue, it must be filed, sawed, or drilled away. If it be caused by a deviated cartilaginous portion of the septum, such portion must be re-set in a new place. If, as is often the case, it is due to periodic turgescence of the mucous membrane or the resulting secondary hypertrophies, such growths must be destroyed, either by the galvano-cautery, by the snare, or by caustic acids.

2. That the treatment of hay-fever and allied periodically recurring nasal affections in no way differs from the treatment of other nasal diseases accompanied by obstruction, and that the treatment may be conducted during an attack as well as in the intervals between any two attacks.

**ELEPHANTIASIS ARABUM CURED BY LIGATURE OF THE FEMORAL ARTERY.**—In view of the fact that the successful operations, both in this country and in Europe, for the cure of this most obstinate disease of the lower extremity, by ligation of the femoral artery, are so few as to be easily counted upon one's fingers' ends, and because of the apparent propriety of resorting to this last method before amputation becomes an imperious necessity to save the life of the patient, the successful case operated upon by Dr. G. C. E. Weber, and reported in the January number of *The American Journal of the Medical Sciences*, has considerable interest. Thirty days after the operation the limb had diminished in circumference nearly one-half, and at the end of six months the patient reported that he suffered no inconvenience whatever from his limb, save that upon unusual exertion a slight œdematous swelling would supervene.

**PAGET'S DISEASE OF THE NIPPLE, OR MALIGNANT PAPILLARY DERMATITIS.**—Dr. S. Sherwell, in the January number of *The American Journal of the Medical Sciences*, records two cases of this rare affection, the diagnostic evidences of which he summarizes as follows:

1. The subjective symptoms, itching, burning, etc., are those of an eczema, and not those of an ordinary carcinomatous affection, but they are more marked than in an ordinary case of eczema.

2. The objective appearances are like eczema; the discharge is absolutely similar to that of eczema; it stiffens linen, and forms crusts entirely undistinguishable from those of an impetiginous eczema. The color of the surface is, perhaps, occasionally more livid, but the border is not more sharply defined than is common in that trouble; the somewhat elevated appearance of the patch simulates exactly the acutely macerated and swollen conditions of the lower epithelial layers frequently found in eczemas.

3. The disappearance of the nipple, which is spoken of by Mr. Henry Morris as a "melting away."

4. The retraction of the nipple or tissues immediately beneath, if retraction there be, is not to be distinguished as such, as is so easy in ordinary cancer.

5. The "malignant papillary" feature, as described by Thin, is a very diagnostic point, and would of itself instantly resolve any doubts as between Paget's disease and a true eczema.

6. The extreme length of time before the appearance of anything like positive evidence of carcinoma.

IN *The American Journal of the Medical Sciences* for January, 1884, Dr. Thomas G. Morton reports an interesting case of fracture through the anatomical neck of the humerus, with complete separation and dislocation of the head of the bone into the axilla, with its subsequent removal. The line of fracture was directly across the anatomical neck, where some capsular tissue remained attached. The humerus showed considerable absorption, and rounding off at the seat of fracture, but the joint was otherwise uninjured.

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BRUSHES or combs used on the heads of persons afflicted with scaly baldness will communicate the disease to other heads, and Dr. O. Lassar considers that baldness is spread by hairdressers who employ combs and brushes on their customers, one after another, without any regular cleansing of these articles after they are used. Hair which fell from heads in which dandruff occurred plentifully were collected and rubbed up with vaseline. The ointment thus made was applied to the fur of rabbits or white mice. Soon baldness made rapid progress in the parts so treated. Vaseline alone produced no effect.

## ORIGINAL ABSTRACTS.

(BY J. G. KIERNAN, M.D., CHICAGO, ILL.)

FOREIGN BODIES IN THE EYE.—Leiber (*Arch. fur Ophthal.*, XXVIII.) has found that copper introduced aseptically into the anterior chamber excites purulent inflammation, but only when it is in contact with the iris. This does not occur when it is imbedded in the lens and projects free into the anterior chamber. If the particle of copper be suspended free in the vitreous, purulent inflammation does not arise; if lodged in the coats of the eye in the ciliary region, there results a circumscribed suppuration in the immediate vicinity of the foreign body. Lead does not give rise to purulent inflammation either in the vitreous or anterior chamber. On the other hand, particles of lead suspended free in the vitreous produce the same form of detachment of the retina as is found in cases where particles of iron or copper have lodged in the eye. Metallic mercury, introduced aseptically, causes violent purulent inflammation, both in the vitreous and anterior chamber, which is to be distinguished from septic inflammation by the fact that it does not extend to the remaining parts of the eye.

EAR COMPLICATIONS OF NASO-PHARYNGEAL DISEASE.—Dr. Beverley Robinson, (*New York Medical Journal*) believes that, in the eruptive fevers in which inflammation of the middle ear so frequently developed, the aural affection is due rather to the nature of the disease than to extension of inflammation from the throat, although when the latter was present the otitis was more likely to occur. Dr. McKenzie, of Baltimore, had excited redness of the drum membrane by irritation of the sensitive point in the nasal passages, and believed that otitis media was sometimes of reflex origin, due to nasal disease.

DEATH AFTER TRACHELORRHAPHY.—Dr. P. F. Mundé (*New York Medical Journal*) relates the following case: Three or four weeks ago a woman entered Mt. Sinai Hospital to be treated for cervical laceration of the uteri, and accompanying cystocele and proctocele. The uterus could be drawn down to the vulval outlet by the slightest traction without producing any pain. The laceration was repaired without the use of an anæsthetic. The patient did not complain of much pain. After the operation the temperature rose to 104° Fahr., but was reduced to 102° by the use of quinine and ice-water applications to the abdomen. Hot carbolyzed vaginal injections were given. The temperature then ranged from 101° to 103° for ten days. There was an offensive bloody discharge from the vagina. The sutures were not removed until the eighth day, when union was found to be perfect. The temperature remained between 101° and 102° for several days after the removal of the sutures, but the patient's condition was very low; she complained of no pain. Quinine, opium, and stimulants were administered, but death took place about the fourteenth day after the operation. The autopsy showed general peritonitis. There had been no signs of peritonitis before the removal of the stitches, and Dr. Mundé thought the patient must have been suffering from septicæmia. It was probable, in the light of the autopsy, that there must have been a gradual development of peritonitis from the uterine envelopes upward until it became general.

MARSHMALLOW IN PALMAR PSORIASIS.—Dr. F. C. Berry (*Practitioner*) states after trying in vain to relieve a typical case of psoriasis in a 65 year-old man, who had suffered from it for eighteen months, by the use of Fowler's solution internally,

and the local application of soft soap, and an ointment of chrysophanic acid and vaselin, oil of cade and vaselin, the ammoniated mercury ointment, and Wright's liquor carbonis detergens, he applied marshmallow ointment. The intolerable itching and consequent irritation were relieved by the first application, and in a month the skin of the hand had almost regained its natural appearance. No other treatment was used except the washings with soft soap. The disease re-appeared in a short time, but fresh application of the ointment cured it at once. There was no history of syphilis. In the palm of the right hand the integument was hardened and thick, and from off its surface glistening white scales could easily be removed. In some places it was corrugated and fissured. Extension of the fingers caused the cracks to bleed. The thumb dorsal surface was also affected. The ointment was made by cutting the fresh leaves into small pieces, stirring them together with lard and boiling the mixture for half an hour, after which process it is strained through muslin or through a common kitchen strainer, and is then ready for use. It is by no means improbable that Dr. Berry's ill success with chrysophanic acid was due to the use of vaselin.

DIPHTHERITIC OPHTHALMIA AND ITS TREATMENT.—Barette (*Arch d'Ophthalmologie*, March-April, 1882) calls attention to two complications not previously mentioned—loss of the eyelashes and lid paralysis. In the patients examined the ciliary bulbs were so altered by the disease that most of the cilia were lost, and were not reproduced. The treatment consisted in exciting in the mucous membrane a state of inflammatory congestion favorable to elimination of neoplastic products and production of healthy pus, and then treating this purulent inflammation by means in use false membranes are removed. He uses also antiseptic lotions and hot fomentations. As an antiseptic lotion he employs either Labarraque's solution, or a five per cent. solution of carbolic acid.

CHROMIC ACID IN NASAL POLYPI.—D. F. Donaldson (*New York Medical Journal*) says that the point to be aimed at in the treatment of polypi of the nasal passages was prompt and rapid removal, with a minimum degree of pain and loss of blood, and in a manner to prevent their recurrence. The conditions before mentioned were best fulfilled by an application of fine crystals of chromic acid, or of a solution of a hundred grains to the ounce, first moistening the mucous membrane with a lead lotion. Chromic acid was a most powerful escharotic, and also disinfectant. When instruments were used, it was of advantage first to apply the acid to the base of the growth and lessen the size of the pedicle; or afterwards to the stump, destroying it completely. In the discussion of this paper before the American Laryngological Association, Dr. W. C. Jarvis said that usually the development of nasal polypi near the seat of a former operation took place not from the roots of the polypi that had been removed, but from embryonic structure upon the mucous membrane in the immediate neighborhood which now had room for growth. The application of chromic acid after removal of the large tumor by the wire would prevent this. Dr. W. F. Duncan thought that recurrence of the polypus could be guarded against only by removal of a portion of the turbinated bone from which it sprung. In his experience there had been a recurrence in about eighty per cent. of the cases within from one to five years after the growth had been removed by other methods. Dr. Carl Seiler had found that polypi of the gelatinoid variety were a localized hypertrophy of the mucous membrane which had undergone myxomatous degeneration. In their removal he preferred the wire, which, when tightened slowly, gave rise to less pain than did escharotics. A recurrence did not take place if all the growths were removed. Dr. W. H. Daly had used

chromic acid with satisfaction, but he had found one escharotic about as good as another.

**TREATMENT OF SERPIGINOUS CORNEA ULCER.**—Verdèsè believes (*Arch. d'Ophthal.*, March-April, 1882) this form of ulcer originates in an obstruction in the course of the tears, or a simple diminution in the force of the current, which becomes insufficient to carry along with it or to retard septic substances engaged in the inferior orifice of the nasal canal, either spontaneously or by the patient blowing his nose. These septic substances, *leptothrix buccalis* or *aspergillus*, penetrate into the lachrymal canals, and, being in an excellent state for cultivation, multiply, and await the proper moment for their necrotic action. The serpiginous form of ulceration is entirely due to the infection by micro-organisms which thus find a nidus of cultivation in altered conditions of the lachrymal canals. In the majority of cases simple lachrymation precedes the corneal complications. These serpiginous germs may infect slight corneal desquamations, possibly produced by obstruction to the course of the tears. He recommends the injection of intact lachrymal puncta with a four per cent. boracic acid solution, as prophylaxis against simple as well as the serpiginous ulcers. When such an ulcer appears, he scrapes roughly its entire surface with a narrow cataract knife, to produce an actual resection of the pultaceous margin, especially on the side where the destructive action is going on. As the necrotic elements are detached, an assistant brushes over the cornea with a salicylic acid and borate of sodium solution, each one gram to ten grams of water. Then the lachrymal punctum is opened, the point of an Anel's syringe introduced, and a series of injections made with a four per cent. boracic acid solution. The conjunctival cul-de-sac is then carefully cleansed with carbolized cotton, and the salicylic acid and sodium borate solution spread over the cornea. The eye is then covered with carbolized cotton. This dressing should be done twice a day. Bowman's operation may be done on the lachrymal passages if advisable.

**COTTAGE ASYLUMS.**—Dr. R. S. Dewey, Superintendent of the Hospital for the Insane at Kaukaee, Ill., says (*Alienist and Neurologist*, January, 1884) : Institutions for the insane were at first only founded for public relief and without the idea of benefit to the insane. It has always been a too general impression that the insane were essentially different from the sane in everything; instead of the fact being recognized that they possess natural traits and activities, which are, however, modified through the agency of disease, wrongly directed or held in abeyance; and this mistake has been very mischievous in its effects upon the provision for them, preventing the supplying of a natural and domestic abode, adapted to the varying severity of different degrees and kinds of insanity. The essential difference between an institution for the insane and all other institutions, in confining and controlling those who are held as prisoners, without being guilty of any offense, and who are entitled to the utmost privileges and consideration of their wants, without possessing in the eye of the law or in the exercise of reason, the ability to enforce their claims, was long overlooked, but has come to be more fully appreciated. Gradually insanity has come to be recognized as a disease, hospitals have been founded, mainly for curative treatment, and the congregate asylum has been developed, admirable for its purpose, but not adapted for universal application to the entire body of the insane. Finally the infinite variations among the insane, in the manifold forms of the disease; in the degree of reason and self-control possessed by different individuals or characterizing different groups of the insane as a whole; in the various classes of private and pauper, criminal and innocent, epileptic, inebriate, etc., are beginning to be more fully understood by the public and the medical profession, and a variety is being introduced in the erection of buildings, as to



location and internal arrangement, by which an appropriate environment for each and all is sought to be attained, while at the same time the opinion gains ground that the domestic or "segregate," as contrasted with the "congregate" or "institution" idea, should prevail for a large proportion, in providing for them economical and substantial buildings, with as much of the house-like and home-like character as in each instance the fact of insanity would permit.

VASELIN OINTMENTS.—Dr. Kiernan (*Druggist*, December, 1884) says that on testing vaselin ointments on dogs and on himself he is fully prepared to confirm Shoemaker's conclusions. On making a five to thirty vaselin ointment of potassium iodide and rubbing it into his neck and thighs he could not detect either in the urine or saliva any trace of iodine; on repeating this experiment in a dog the same result occurred. The following day these experiments were repeated with a lard ointment, and iodine was to be detected in very decided quantities in the saliva and urine of himself and the same canine. The use of an atropine vaselin ointment had no effect on the pupils of either the canine or himself, while the action of an oleate or lard ointment was very decided. The ordinary blue ointment of the pharmacopœia, well rubbed in, resulted in the finding of mercury in his urine and that of the canine, while the vaselin mercurial ointment had no such effect. The use of a vaselin strychnine ointment had no effect on the canine, while the same quantity of strychnine in a lard ointment produced very decided effects in respect to tetanizing the animal. A mixture of one-third fluid extract of conium and two-thirds vaselin was, when well rubbed in, without effect on the strychnine symptoms, while the same proportions of fluid extract of conium and lard controlled them in a very decided manner. From his own results, Vigier's and Shoemaker's, he concludes that while vaselin and glycerin ointments might be of some value as purely local applications, as in insecticide preparations, such excipients should not be used in cases where the drugs incorporated in the excipient are to be absorbed.

TASTELESS QUININE MIXTURE.—Dr. J. Bartlett (*Chicago Druggist*, Dec., 1883) recommends administering quinine drug to children and fastidious persons in this form: Quinine sulphate, 20 grains; tannin, 6 grains; com. syr. sarsaparilla, 1 ounce. Mix by first triturating together the dry powders, and then adding the syrup. This procedure is considered essential in order better to unite the alkaloid with the tannin.

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PARENCHYMATOUS INJECTIONS OF HYPEROSMIC ACID.—In April last M. Winwarter used injections of hyperosmic acid into the tissues of a soft sarcoma of the size of a child's head, situated in the right side of the neck. Every day for fourteen days the injection was repeated. Each time three drops of an aqueous 1 per cent. solution of the acid was employed. At the end of this time the tumour was completely broken down, and the necrosed pieces mixed with seropus were eliminated by incisions made through the skin, which remained perfectly sound. No local inflammation or general disturbance attended the treatment. Since then the injections have been used with success in a case of sarcoma of the shoulder, in cases of multiple lymphomata, scrofulous glands of the neck, and other kinds of cervical tumours. With carcinomata of the glands, the result has been negative. According to M. Delbastaille, the principal advantage of the acid appears to reside in its property of acting slightly or not at all on healthy tissues, and of confining its action to the sight of injection:

## SELECTIONS.

## THE ANNUS MEDICUS 1883.

THE year 1883, from a medical point of view, cannot be regarded as a very eventful one, though the sequel will show that it has not been deficient in matters of interest and in work of promise. On a cosmic view the year will be strangely remembered as one of earthquakes and of red sunsets in winter. In this quiet country, where the "shaking fits" of "the old and crazy earth" are not "frequent," we have had several slight reminders that even we are not entirely beyond the reach of that incessant volcanic activity which, in the case of Casimicciola and Krakatoa, has been attended with such appalling and widespread consequences. The seasons have been moderate in character, with results to be noticed as we proceed. Without further delay, and dividing our summary into various sections, we shall briefly indicate the chief points in the history of the year.

## ANATOMY AND PHYSIOLOGY.

Amongst the more important new works on anatomy and physiology, or new and greatly modified and extended editions of old works, that have been published during the last year are Hyrtl's "Anatomie," which has long been out of print, but which contains much original matter; Gegenbauer's "Anatomie des Menschen," which treats the subject of human anatomy in the broad and comprehensive spirit to be expected from a great master of comparative anatomy; Langer's "Anatomie der Äusseren Formen," adapted for artists; Wiedersheim's "Vergleichende Anatomie," which is completed by the issue of the second part, dealing with the invertebrata; Gray's "Anatomy," the tenth edition of which has been edited by Mr. Holmes and Mr. Pick; the first three parts of Vogt's "Anatomie Comparée;" the third and concluding part of Ecker's "Anatomie des Frosches," which completes his work on the "Anatomy of the Frog;" Marc See's "Anatomie et Physiologie du Cœur," which especially deals with the disposition and structure of the valves, and it is noticeable that he calls in question, if he does not altogether deny, the safety-valve action of the tricuspid valve, generally admitted in English physiological text-books. Fick has published the third edition of his convenient "Compendium der Physiologie;" Foster the fourth edition of his "Physiology;" whilst a third edition of the well known "Embryology" of Foster and Balfour has been edited by Adam Sedgwick and Walter Heape; a second edition of Landois' "Physiology," one of the best of all the German works, has also lately appeared. Sappey has published a valuable essay on the lymphatic vessels; and Loewe a magnificent quarto on the anatomy and development of the nervous system, illustrated by many drawings; M de Quatrefages has written a treatise with the title, "Hommes Fossiles et Sauvages," which contains many facts bearing on the history of the human race, a subject to which a new dictionary, the "Dictionnaire des Sciences Anthropologiques," is devoted. Moquin-Tandon, the professor of zoölogy at Besançon, has completed a French translation of the well-known "Grundzüge der Zoologie" of Claus, which may be recommended to those who have not mastered German. Hermann's large "Handbuch der Physiologie" has been completed within a reasonable period by the

issue of a part on the chemistry of the secretions, by E. Drechsel, and the six volumes as they now stand constitute the most authoritative, comprehensive, and complete account of physiology that exists in any language, and are fairly comparable with the great "Dictionary of Physiology" published in 1842-43 by Wagner. An important and extremely well got up series of manuals for students of medicine was published at the commencement of the winter session by the Messrs. Cassell, embracing histology, surgical pathology, surgical applied anatomy, clinical chemistry, dissections, human physiology, physical physiology, therapeutics, comparative physiology, and operative surgery, by such distinguished authors as Klein, Pepper, Treves, Ralfe, Power, Bruce Clarke, and others. Some valuable papers have appeared in the *Journal of Physiology*, the most important being those by W. H. Gaskell on the "Innervation of the Heart," with especial reference to the heart of the tortoise, in which the influence of the vagus is especially studied; Dr. Wesley Mills on the "Physiology of Voice;" and Drs. Yeo and Cash on the "Latent Period of Skeletal Muscles." In the *Journal of Anatomy and Physiology* Dr. Fraser gives the results of his experiments on the action of infused beverages on peptic digestion, which deserves careful study on the part of the practitioner. The second and third volumes of the *Archives Italiennes de Biologie* have appeared, and contain important articles by Capparelli, Pellacani, and Sertoli on "Unstriated Muscle"; the first-named observer having shown that the period of latent excitation may be as long as one second and a half, and that this form of muscle undergoes cadaveric rigidity, attaining its maximum in from six to ten hours after death, whilst Pellacani has chiefly occupied himself with the action of curara and other poisons on it. Sertoli notices that it undergoes rhythmical contraction of a spontaneous character, lasting five or six minutes, or more. He finds that temperature is of great importance. Below 15° C. it does not contract at all when stimulated, and it attains its maximum at 37° C. We have only space to mention a few of the numerous essays that have made their appearance in the two great French periodicals, the *Archives de Physiologie* of Brown-Séguard and his coadjutors, Charcot and Vulpian, and the *Journal de l'Anatomie* of Charles Robin and Pouchet; but Schmidt, Hayem, Robin, Mayet, and Vasilio have discussed the structure and reactions of blood-corpuscles; the anatomy, physiology, and pathology of the nervous system have been described and illustrated by Ranvier, Vignal, Dastre and Morat, Déjérine, Beauregard, Hoggan, and Testu, whilst there are many scattered papers of merit. The set of the tide in physiological research is perhaps best indicated by the astonishing number of memoirs, treatises, and papers on embryology. The successive numbers of the *Archiv für Anatomie und Physiologie* contain, for example, those of Strahl on the "Development of Reptilia," Spee and Hensen on the "Development of the Guinea-pig," Froriep on the "Development of the Spinal Column of the Fowl," V. Noorden on the "Development of the Labyrinth in Osseous Fishes," Gottschau on the "Structure and Development of the Adrenals," and many others. The Americans have been unusually active, and many valuable essays and memoirs have appeared. A new journal, named the *Bulletin of the American Museum of Natural History*, has been published at New York. John Mason, of Newport, U. S. A., has published a very fine folio on the Minute Structure of the Central Nervous System of certain Reptiles and Batrachians of America, which is illustrated by no less than 113 plates. The application of the graphic

method of recording movements and of instantaneous photography has so far advanced that Marey has been able to give a precise analysis of the movements of the wings of birds in flight. Nicolaides has followed the course of the vaso-motor nerves in the spinal cord. Louis Olivier finds from experiment with an aeroscope that in Paris a cubic metre of air contains on an average 7,000 spores of cryptogams in December, January and February, 12,000 in May, 35,000 in June, 23,000 in August, 14,000 in October and 8,000 in November, and that the influence of the direction of the wind is of immense importance. An elaborate essay by Béchamp has appeared on microzymes, in which he describes very fully the characters of these minute organisms and their relations to the doctrine of spontaneous generation (against which he pronounces) to histogeny, physiology and pathology, with all of which they are in intimate relation. He holds that the germs of disease, whatever names they may bear, are only microzymes or the organized products of their evolution; that they penetrate into the system by either the respiratory or the gastro-intestinal tract, and that after a time they may cease, by a change in their structure or function, to be active. The statement of Dr. Brown-Séguard that anæsthesia without loss of consciousness can be produced by stimulation of the laryngeal mucous membrane by means of carbonic acid gas, if supported by further experiment and if capable of being applied with safety, may effect a revolution in the exhibition of anæsthetics. Rosenthal has devised a new myograph, with which he has determined the latent stage of contraction of muscle to occupy about .01 sec., a period that is in close accordance with the time originally given by Helmholtz.

#### PATHOLOGY.

Not many years ago those pathologists who declared the discovery of micro-organisms in diseased tissues and fluids were listened to with incredulity, if not with impatience. Now all this is changed, and the search for these microscopic parasites is being pursued in every pathological laboratory with more or less success, and their discovery in new fields announced with more or less justification. The labors of Pasteur and Lister, of Koch and Klebs, are bearing fruit; but so eager is the search that the history of pathology is now in great measure fully made up of this branch of inquiry. Koch himself has announced the discovery of a bacillus in the intestinal walls of cholera patients, and he is not a man whose opinion in these matters can be lightly disregarded. But even he has failed to obtain sufficient confirmatory evidence from inoculation; and his inquiry, commenced in Egypt, whither he had been sent by the German government, is to be continued in India. The discovery of the "cholera" had been several times previously announced, Hallier's micrococcus, discovered in 1868, being perhaps the best known. The French scientific expedition organized by Pasteur returned from Egypt with less positive results, but with a decided opinion against the specificity of Koch's bacillus; the expedition, moreover, lost its leader, Dr. Thuillier, who fell a victim to the disease he was investigating. But of all subjects, that which has engaged the widest attention has been tuberculosis. Not a congress meets without its being discussed, and many have been the papers, lectures, and researches upon this topic, which has come to be regarded as the most pressing question of the day. The impetus to this study was given by Koch's now famous discovery of the bacillus tuberculosis—of the existence of which there is a vast preponder-

ance of evidence. This organism has been detected not only in phthisical sputa and tubercular lungs, but in tubercular lesions of all kinds, and in the urine in renal phthisis. In this country the most prominent writers on the subject are Mr. Watson Cheyne—whose report made last spring to the Association for the Promotion of Scientific Research confirmed Koch's experiments entirely—Drs. H. Gibbes, Heron, S. West, Whipham, and C. T. Williams. Others have also contributed to the subject, especially in relation to phthisis; whilst more recently Dr. Gibbes, in conjunction with Mr. J. B. Sutton, communicated to the Pathological Society a paper on so-called tuberculosis of birds, wherein the bacillus was found in abundance. It is impossible to mention the numerous memoirs that have appeared in the continental and American journals on the subject, but it is only right to refer to the vigorous attack made upon Koch's discovery by Spina of Vienna, an attack which was as vigorously repelled by Koch. Even in Vienna opinion is gaining ground in support of the views of Koch. Mention also should be made of the statement by Dr. Wilson Fox that, in face of facts obtained by a repetition of his well-known experiments on the inoculation of tubercle—a repetition conducted at Dr. Fox's request by Dr. Dawson Williams—he admitted the existence of a fallacy in his earlier experiments, which seemed as if indifferent materials could excite tuberculosis in animals. Lastly, as the direct outcome of the bacillary doctrines, we find a belief in the contagiousness of phthisis revived, and to a limited extent supported by the results of an inquiry undertaken by the British Medical Association Collective Investigation Committee. The same subjects are now being more rigidly investigated in Germany. Bacterial pathology does not, however, rest here. This year has seen the discovery of a bacillus in glanders, made simultaneously in France by Bonchance and others, in Germany by Schutz and Loeffler, and later in Russia by Vasilieff, and experimental inoculations have tested the value of this discovery. Neisser's discovery, made in 1879, of a micrococcus in gonorrhœa has been confirmed by Sternberg of San Francisco and Bockart of Wurzburg; whilst Friedlander has lately produced very strong evidence in support of his previous discovery of a specific micrococcus in acute pneumonia, which has also been often sought for by others. Fresh researches have been made on the bacillus of leprosy by Hansen, and in this country by Thin; and Fehleisen has continued his experimental work regarding the micrococcus of erysipelas. Dr. Domingo Freire has announced the discovery of a micrococcus in yellow fever, and Dr. Crooke of a bacterium in scarlet fever. Nor does this exhaust the list, which is attaining very considerable proportions, of diseases alleged, on a more or less sound basis, to be due to the intervention of these minute organisms. Arising out of this subject is the important question of preventive inoculation by means of attenuated virus, which Pasteur has shown can be extended to anthrax and chicken cholera, although Koch, with regrettable animus, published early in the year a lengthy indictment of Pasteur's method. This question of inoculation has lately been ably reviewed by Professor Roy in his Brown lectures at the University of London. Mention may also be made of Falk's important research upon the action of the gastro-intestinal secretions on bacteria. Dr. Creighton, in his address on Pathology at the meeting of the British Medical Association, ably confronted some of the problems which modern pathological discovery has opened up, and dealt with disease from the evolutionist point of view. Turning to other matters, there is but little to record. Not much light was thrown upon the nature of diabetes

in the discussion raised at the Pathological Society upon its morbid anatomy. "Acute rickets" has been shown with convincing force by Dr. T. Barlow to be probably a combination of scurvy with rickets. Dr. Heubner has inquired experimentally into diphtheria, with results tending to show that the affection of the mucous membrane in this disease depends upon catarrh, denying the necessity of catarrhal ulcers, or that the fluid is other than an excessive production of the normal secretion of the mucous membrane. Under the title of "Porencephalie," Professor Kundrat has published a memoir dealing with a peculiar condition of the brain, to which Drs. Savage and Hale White also contributed at the Pathological Society. Ziegler's text-book is approaching completion; Orth has issued a new and revised edition of his compendium, and is engaged in publishing a more detailed work on "Special Pathological Anatomy." Dr. Hamilton of Aberdeen has published an original and suggestive book on the "Pathology of Bronchitis;" Dr. Coats, of Glasgow a "Manual of Pathology;" Dr. Sims Woodhead, of Edinburgh, a work on "Practical Pathology." So that both at home and abroad it is safe to say that pathological science is being prosecuted with zeal and with profit.

#### THE PROGRESS OF THERAPEUTICS.

One progress resembles another in many principal features. In natural progress time plays an important part. The progress of therapeutics is a natural one, no matter what vicissitudes it may have been subjected to. It is natural, because all the agents concerned in its welfare are the processes or the objects of nature. Man, man's mind, and the remedies he makes use of constitute the elements of the machinery of human therapeutics, for we would draw a distinction between human and animal therapeutics. Indeed, it might be well to distinguish between human and animal therapeutics. Pushing the same notion further we might with justice speak of individual therapeutics. Such considerations are suggested when we reflect on the meaning of the term "idiosyncrasy." Taking a retrospect of the past year we can discern no tower projecting its height far above the level of ordinary discovery or progress. And so it behoves us to take humble ground and inquire of the lesser lights which have been lit—and, alas, in many instances burnt out—during the year 1883.

Perhaps the chief matter which has shown itself has been the importance of remedies which may best be called of antiseptic nature. Antiseptic inhalations in cases of pulmonary disease have been much spoken of and a good deal written about in the closing year. We think their use of considerable value in many cases. No doubt the impetus which their employment has received came from the parasitic doctrine of the nature of phthisis. But it is not on that ground we would venture to support their use. In cases of bronchiectasis, where the long-secreted purulent matter is possibly mixed with minute or even larger sloughs, the adoption of the antiseptic treatment not only renders the patient more tolerable to himself and others, but unquestionably in many instances relieves cough, diminishes secretion and conquers fever. And so it undoubtedly is in some cases of phthisis, where gangrenous processes, however minute, or secretions pent up for however long, are apt to be a source of annoyance and danger. A large number of preparations have been either newly introduced or freshly brought to notice. The bulk of these have, perhaps, died out, possibly again to make their

appearance; but a few of these have held a portion of their ground, or at least attracted special attention. Kairin, which is in some way related to the cinchonas, has occupied considerable attention. Favorable reports of its antipyretic action have been forthcoming from chiefly German quarters. The impression left on our minds is that it is hardly likely to supersede the older and better known antipyretics. Whilst we are on the subject of reduction of pyrexia, we may refer to the remarkable prominence given to the treatment of enteric fever by cold water at the Paris Academy of Medicine during the early part of the year. Whatever advantages may have been claimed for that method of treatment, we think we express the general feeling of the great centres of therapeutics in England when we remark that the universal employment of it in all cases is firmly condemned. Moreover, it cannot be too strongly insisted upon that simple pyrexia seldom kills an individual affected with typhoid fever. No doubt the mere increase of body heat is directly harmful, but it is exceedingly probable that the danger lurks much more in the poison of the fever than in the pyrexia itself. *Convallaria majalis*, or convallamarin, according to the latest accounts of Beverley Robinson, is inferior as a "heart" remedy to digitalis. Nitroglycerine seems to have established itself more firmly in favor for the relief of anginal attacks referred to the heart; and Dr. Matthew Hay has contributed an important paper on the subject. But little use seems to have been made of naphthol in the treatment of cutaneous diseases; tar appears likely to continue its valuable career in the relief of chronic eczema. *Jaborandi* has been highly spoken of by Dr. Miller Ord and others for the amelioration of that generally progressive disorder, myxœdema. The hypodermic injection of nitrate of pilocarpin to the extent of producing profuse diaphoresis (dose, one-sixteenth, one-eighth, or one-fourth of a grain of the nitrate) has been followed by marked improvement. So far these therapeutical agents have been tried in an empirical fashion. But the scientific clinical physician yearns after a more rational basis in the use of drugs and other remedial agents. The efforts of Drs. Lauder Brunton, Ringer, Murrell, and Sainsbury in England, of Schmiedeberg, Germain Sée, Bochefontaine, Laborde, and others on the continent, to place on a more secure basis the therapeutical action of drugs, deserve commendation. The pages of the *Lancet* are dotted here and there with valuable attempts in these paths. The view that digitalis contracts the bloodvessels may now be regarded as positively proved. A valuable inquiry into the action of quinine on the heart was abstracted in the *Lancet* for February 24. Two papers by Mr. George Padley of Swansea, on the successful treatment of "Pernicious Anæmia by Arsenic," deserve careful perusal and excite hope in regard to a hitherto very intractable disease. It will thus be seen that the year, whilst not fruitful in any extraordinary way, has yet yielded a good crop of useful observations. Whilst we speak thus hopefully of the therapeutical treatment of disease, we cannot conclude without repeating our conviction of the immense importance of the physiological treatment of disease. The maladies of the body are largely concerned with disorders of quantity. Too much or too little play important *roles* in a multitude of ailments. For such complaints the stupendous value of strict and appropriate diet, including under this term everything that is ingested, cannot be too robustly insisted upon.

## SURGERY.

The year has not been marked by any very striking advance in sur-

gical knowledge or practice that can be pointed out as certain to make 1883 memorable in surgical annals. This has not been from any lack of earnest surgical work, as our own columns and those of contemporaries in all lands will show. In reference to the ever-pressing question of the treatment of wounds, there is nothing fresh to report. The vigorous discussions of years gone by as to the truth of the septic theory of wound diseases and complications have died out. This and the other great principles of wound healing and wound treatment are daily becoming better and more widely known, and quite recently surgeons who are very far removed from ranging themselves under Sir Joseph Lister's banner have been at pains to explain that they accepted to the full his theories of septicæmia and local septic infection, and of the great mischief wrought by organisms introduced into wounds from without, and that they only differed from him as to the best mode of carrying out what is spoken of as the "antiseptic principle." On the continent Sir Joseph Lister's theories and practice are enthusiastically believed in and adopted, although by many other agents are used than carbolic acid—especially iodoform and corrosive sublimate. Unquestionably the revolution in our notions of the proper treatment of wounds is rapidly spreading and becoming general, and it would seem, as indeed it would be expected, that the younger men are practising aseptic surgery more uniformly, and with greater faith than their seniors. In leaving this subject, the greatest of all in the domain of surgery, and looking to special branches of the art, we have to record a steady advance in professional confidence, in digital exploration of the male bladder through an opening made into the membranous urethra, and removal of non-malignant vesical tumors through a similar opening. Sir Henry Thompson has already accumulated a considerable experience in these operations, and his published results show a most gratifying success; we are not premature, therefore, in speaking of these operations as approved surgical procedures. Abdominal surgery has been steadily progressing. Enterectomy with suture of the ends of the gut has been practised, and is evidently a practicable operation in suitable cases. In Vienna, particularly, excision of the pylorus has been practised repeatedly, but the success attending this very severe operation has not, thus far, been such as to afford hope of its ever securing a recognized position, even for the limited number of cases in which it is practicable. Digital dilatation of the contracted pylorus has been introduced and practised with success at least once. Gastrostomy is now a not unfrequent operation at our hospitals, and has proved itself to be of real service. In operations for cancer the area of tissue removed is often wide, and in many cases the neighboring lymphatic glands are removed, as well as the organ or part primarily affected. Cancer operations are thus becoming more severe, but it appears to be proved that they are more successful in prolonging life and in averting recurrence of the primary disease than formerly. To the surgery of the osseous system the debate on wiring together the fragments of fractured patella is the most important contribution, while Ollier, Royes Bell, Golding Bird, and others have advocated new ways of excising the knee-joint. One of the most recent additions to our surgical knowledge is a statement by Kocher, of the grave constitutional effects resembling those of myxœdema, which follow total extirpation of the thyroid gland. Nerve-stretching having been chosen by Professor Marshall for the subject of the Bradshawe Lecture this year, we have had from him such a review of the *modus operandi* and value of that procedure as is certain to increase the interest already felt in that opera-



tion. There can be no doubt that the tendency of surgery at present is to advance its operative side. Everywhere operations are superseding less satisfactory means of treatment. And in estimating the value and effect of Sir Joseph Lister's work it is necessary not only to regard the reduction of mortality after wounds, and the banishment more or less complete of wound diseases, but also the great increase of the field of operative surgery which his researches and teaching have directly stimulated and effected.

## OBSTETRICS AND GYNÆCOLOGY.

In "Obstetric Medicine" Dr. Robert Barnes has discussed the Naegelé obliquity of the foetal head; Dr. Champneys has contributed a scientific paper on the "Pressure of the Femora," and its influence on the shape of the pelvis; Krukenberg, an exhaustive memoir on the source of the "Liquor Amnii;" and Charpentier, a work on "Midwifery." In gynæcology the year has witnessed the scientific method applied for the first time to "sterility" in the Lettsomian Lectures by Dr. Matthews Duncan; while Vedeler's paper on "Dysmenorrhœa," Wyder's on the "Mucosa Uteri during Menstruation," and Leopold's on "Menstruation and Ovulation," contain matter which will help to place gynæcology on a scientific basis.

## OPHTHALMOLOGY.

In ophthalmology, the elevation of Mr. Bowman to a baronetcy has given general satisfaction. The work which Sir William Bowman—if we may designate him by his new title—has accomplished is amongst the best of its kind that has been done; and the lapse of forty years, the employment of microscopes of superior penetration, and the most intense and unremitting efforts on the part of many histologists, have enabled surprisingly slight additions to be made to his account of the structure of muscle and of the kidney, or to his various observations on the anatomy and physiology of the eye. Whatever he has done he has done well, and the distinguished position he has held, both in this country and abroad as a representative of scientific ophthalmic surgery, has rendered the honor conferred upon him a source of warm congratulation to the profession at large. The proceedings of the Ophthalmological Society are of considerable interest. Sir W. Bowman, in resigning the presidential chair after a tenure of three years, in which he has been succeeded by Mr. Hutchinson, has had the liberality to present the society with the sum of a thousand pounds to assist in defraying the expenses of the meetings and the formation of a library. The papers read and the discussions upon them have been of interest, the most important being those of Dr. Gowers on "Eye Symptoms in Diseases of the Spinal Cord," on the "Growth of the Crystalline Lens," by Priestley Smith, and on "Ocular Movements with Vertigo produced by Pressure on a Diseased Ear," by Dr. Hughlings Jackson. Several interesting cases of sympathetic disease have also been reported. A remarkable series of treatises on "Glaucoma and upon Sympathetic Affections of the Eye," has been published by Ludwig Mauthner, in which the ætiology and pathology of these affections are very fully and ably discussed. The first part of what will probably prove a large work, if continued on the same scale, on ophthalmic medicine and surgery, has just appeared by Drs. Galezowski and Dagenet. The present instalment deals with the diseases of the conjunctiva, cornea, sclerotic, and iris. Otto Becker

has made the most important contribution to our knowledge of the anatomy of the eye, in his splendidly illustrated treatise on the healthy and morbid lens, whilst Dr. Robinski has given in a small pamphlet a good account of the methods of investigation that may be adopted with advantage in studying the same organ. Charpentier has written a good paper on the rapidity of reflex actions effected by retinal stimulation. Wöltzke has made some interesting observations on the tension of the globe. He finds that dilatation of the pupil is constantly followed by augmented tension, whilst contraction of the pupil is followed by diminished tension. Hence atropine augments and eserine diminishes tension; but he has determined the noteworthy fact that eserine in larger doses than those which were just sufficient to produce myosis causes increase of tension. The treatment of the intractable affection named trachoma, or granular conjunctivitis, by means of jequirity, has been brought prominently forward by De Wecker and Deneffe, by Bordet in his graduation thesis, and others. The substance named jequirity by the French is an old friend under a new name—the *Abrus precatorius*, producing red seeds with a black spot, which, as we learn from Power and Sedgwick's *New Sydenham Society's "Lexicon,"* belongs to the Leguminosæ, and is a native of Java, Mysore, Hindostan, and Assam, where it is used for allaying heat in the eyes in cases of ophthalmia, as well as for other purposes. The effects of the drug have been carefully studied. The conclusions drawn by various observers have been strikingly different. The infusions recommended by De Wecker for use are one in which thirty-two seeds well triturated are infused for a day in 500 grammes of cold water, and then in 500 grammes of hot water; and a second in which ten seeds are infused in 500 grammes of cold water for a day. The application of the cold liquid is made to the inner surface of the lids with a brush three times daily. It sets up acute inflammation, and, according to De Wecker, cures the granulations. M. Bordet declares that none of the patients submitted to its influence have been cured, and he believes it to be in no way superior to sulphate of copper or nitrate of silver. The employment of homatropine has been strongly recommended by Durr as an efficient means of enabling the refraction of the eyes of school children to be taken rapidly with the minimum interference in regard to work. He finds a 5 per cent. solution begins to produce mydriasis in about five minutes; that the maximum dilatation of the pupil is accomplished in from fifteen to twenty minutes; that the degree of greatest dilatation lasts for three or four hours, and that all effect of the drug has passed away in about twenty-four hours. The proportion of cases of astigmatism to healthy eyes seems, from the observations of Nordensen, to be greater than is usually thought. In 452 eyes examined by him in Paris, only 9.2 per cent. were free from any appreciable degree of this defect; 77.2 per cent. possessed corneæ the curve of which was least in the horizontal direction, 1.3 per cent. in the vertical, and the remainder in oblique directions.—*Lancet*.

PROSTATIC GOUT. By REGINALD HARRISON, F.R.C.S., Surgeon to the Liverpool Royal Infirmary.

I propose offering some observations on an inflammatory condition of the prostate which, though never, I believe, terminating in abscess, is attended with much suffering, and not unfrequently leads to further consequences. Though this gland is not so often selected for acute

gouty manifestations as the ball of the great toe and the vicinity of some of the smaller joints, yet cases are sufficiently common to make the subject deserving of comment, and particularly in reference to one or two points. Gouty prostatitis, so far as I have observed it, occurs in persons who, though having a gouty diathesis, either hereditary or acquired, have previously remained free from the more ordinary attacks of this disorder. Its occurrence is often assigned to catching cold, getting wet, or sitting upon damp seats. Like gout acutely affecting the great toe, the attack usually comes on at night, the patient experiencing severe pain, which he refers to the perinæum, and not unfrequently likens to a hot cork. Though painful, the desire to micturate is irresistible, and is accompanied with spasms, which often render any attempt to retain urine, even while the patient is getting out of bed, almost impossible. Sympathetic pain is at the same time experienced in the groin, or in one or both testicles, rendering the latter extremely sensitive to the touch. Exploration of the rectum with the finger—a necessary examination, which is sometimes so painful as to call for an anæsthetic—shows the prostate to be both tense and tender. During the day the symptoms generally abate, to recur at night. Like the analogous manifestation in the great toe, these acute prostatic attacks are not usually of long duration, as they merge into a chronic form, which will presently be noticed. The urine is loaded with lithates, and is invariably of an acid and irritating character. After an acute attack the prostate is often left excessively sensitive, and this is a point worthy of special consideration. After an acute attack of gout in the foot the limb is tender, and the person is more or less lame. So with the prostate—it remains sensitive, and the patient dreads to call forth sufficient muscular force to completely empty his bladder. In fact, he lets his urine dribble off voluntarily, and retains a portion of it, so as to form a sort of water-bed behind his prostate. In this way he wards off from his sensitive gland the last and most painful efforts of each act of micturition. Watch a patient, with a prostate tender from gout, pass water, and the manner in which he cautiously eases off the pressure as the act is about to close is very significant. I have satisfied myself on several occasions that a degree of retention was thus caused, by passing a rubber catheter and removing an ounce or so of urine, when it was believed by the patient that he had emptied his bladder.

It is generally conceded that a hypertrophied prostate, which causes urine to be constantly retained within the bladder, is a condition favoring the formation of stone. I have thus endeavored to show that the urine of the gouty is not unfrequently submitted to similar conditions, but under different circumstances. May not this consideration explain why the inorganic elements of the urine of one gouty person concrete, whilst in another they do not? Is the shortness and dilatibility of the female urethra sufficient to explain the rarity of stone in women, even in those of a markedly gouty diathesis?

In the treatment of acute prostatic gout there are one or two points to which prominence is to be given. In the first place it is always associated with a highly acid condition of the urine, and with an excess of urates as well as of uric acid. The administration of alkalies under these circumstances can hardly be regarded other than as a natural expedient. It has been stated that the neutralization of these urine salts by the alkali is little else than masking the disorder, as the cause of it still remains untouched. But there is a mechanical aspect to this question which must not be passed by entirely without notice. One effect

of the administration of alkalis upon such urine is not only attended with a marked disappearance of the urate salts from the urine, but careful microscopical observation has shown that the use of alkalis is frequently followed by a change in crystalline form, which is of considerable advantage to the patient, though he may still continue to void urates. When the degree of vesical and urethral irritation was intense, I have seen all this disappear coincident with a change in the crystalline form, being brought about by some artificial means. It is interesting to notice the relation the mucus that is deposited in the urine holds to the kind and quantity of the crystalline forms existing in health as well as in disease in this excretion. Some crystals of uric-acid salts, for example, excite an immense discharge of this mucus. Such salts seem to act upon the urinary apparatus much in the same way as a foreign body in the eye stimulates a flow of the natural secretion, and renders it inordinate so long as the irritant remains there. Can it be doubted that the means we possess of influencing the urinary mucus through changes in the urine salts we are capable of artificially effecting are not important ones in relation to the subject of stone formation? Does not such a consideration take us one step further back in treating calculous disorders, or the tendency thereto, by bringing them distinctly within the scope of medicines rather than of machines?

The chronic form of the disorder, where the prostate remains tender for a considerable period, or until it is relieved by treatment, requires careful consideration, as it is a far more frequent cause of residual urine than is generally supposed. Occurring, as it often does, at a period of life when hypertrophy of the gland usually takes place, the demonstration by the catheter that the bladder does not empty itself is a circumstance which is sometimes received and acted upon as conclusive evidence that the time has arrived when what Sir Andrew Clark has aptly spoken of as "the catheter life" should commence. There is this important difference, however, between the residual urine of a sacculated bladder in connection with a large prostate and that dependent on a gland which is sensitive and merely temporarily enlarged; the former is benefited by catheterism, the latter is aggravated by it. The former is comparatively uninfluenced by medicines, whilst the gouty prostate which interferes with the complete emptying of the bladder is speedily relieved by those measures which belong to the department of the physician rather than of the surgeon. Where the urine is rendered alkaline in the bladder by circumstances which bring about its decomposition, it is not difficult to understand how a phosphatic stone may be the result. In the view I have urged, relating to another reason for residual urine, is to be found a vesical cause for the collection and aggregation of those materials which the urine of the gouty furnish. It has been observed by Dr. Ord. "Two-thirds of all urinary calculi are in bulk composed of or start from concretions of uric acid."

The symptoms of chronic gouty prostatitis are often anomalous and difficult to sum up; they may be briefly enumerated as urine habitually loaded with uric acid and urates, unnatural sensitiveness of the prostate to the touch, or even to pressure applied to the perineal region, and the presence of uncomfortable sensations referred to the neck of the bladder, as if there was a swelling, or the viscus was not emptied, the latter sensation being practically well founded. The treatment of the affection resolves itself into the employment of those general measures appropriate to the gouty diathesis, which it is not necessary for me to

refer to. Iodide of potassium internally, and a mild form of counter-irritation to the perineum, will often be found very advantageous in removing prostatic tenderness. Lastly, this is a class of disorders which is often largely benefited by some spas where the diathesis is corrected by suitable diet and waters. In our own country I have found Buxton of very great service; whilst abroad there are many watering-places which such persons may visit with advantage. It is not always easy to recommend suitable drinks for these cases. I have found the Giesshuebler Sauerbrunnen a very pleasant beverage; as imported into this country I can endorse Dr. Kraus' recommendation of it as "a very pleasant and refreshing drink, which invigorates the nervous system, removes acidity of the stomach, gently stimulates the action of the bowels, and causes a copious flow of urine, thus combining the qualities of a good drinking water with those of a mild curative agent." It mixes well with red wine.—*Lancet*.

ON SUPRAVAGINAL HYSTERECTOMY, WITH REMARKS ON THE PRINCIPLE OF THE EXTRA-PERITONEAL METHOD OF TREATING THE PEDICLE. By THOMAS KEITH, M.D., F.R.C.S.Ed., Surgeon for Ovarian Disease to the Edinburgh Royal Infirmary.

The natural history of the ordinary uterine fibroid is different from that of other tumors. It has a limited life. Other morbid growths go on, and vex or kill according to their nature or place in the body. A stone in the bladder, if it be not taken away, is there forever, and as it grows, it torments the more; but, to the woman with a fibroid uterus, who has passed many a weary year in weakness and suffering, middle age brings relief, and old age may be spent in peace. Hence the difficulty in knowing how far we are justified in advising interference for a disease that troubles for a time, though it rarely kills. Till of late years uterine tumors were let lie undisturbed, unless when they were mistaken for ovarian cysts; but the restless surgery of to-day lets nothing alone; it has no patience for the menopause, and would attack all and sundry in some way or other, till one almost begins to think that old-fashioned responsibility has gone out of date. So far as operations for the cure of this disease have yet gone, the mortality is out of all proportion to the benefit received by the few. In the last edition of his book, Sir Spencer Wells gives his results after hysterectomy as follows: 20 deaths in 39 completed operations, or one in every two operated on. In 31 exploratory incisions for fibroid, partial operations or attempts at removal, one out of every six died; while of those who survived the abdominal section, brief notes are given of other eleven cases, fatal mostly within two years, some within one. Mr. Thornton's results, as given at Liverpool in August last, show a mortality from supravaginal hysterectomy almost as high; and, of all operations of "one kind or another" for uterine fibroid, one out of every three died. Professor Schroeder lost 20 out of 66; but, of the last 40, the mortality had diminished to less than one out of every four patients operated on. These are the latest published results with which I am acquainted, and they are of value, because they represent the whole number of operations performed by these surgeons. I believe Dr. Bantock's results are even better for supravaginal hysterectomy, and those of Dr. Hegar are still more favorable. It must not be forgotten, however, that, in many of these operations, the tumors removed were of no great size. Indeed, I know of some that gave no trouble at all. The best of these results

shows an excessive mortality, even if the disease for which the operation was performed were invariably, in time, a fatal one. I cannot accept such a death-rate. Surely surgery can do something better, else hysterectomy should be laid aside.

It was well remarked by Dr. Wallace of Liverpool, at the meeting of the British Medical Association last August, that our opinions on almost everything connected with uterine fibroids and their treatment, are in a chaotic state. We should learn much if the members of the British Medical Association would record their experience in well-marked cases on the following points: What is the natural history of the various forms of uterine tumor when menstruation has passed away? What proportion of cases have been seen to die directly from them, and what are the causes of death? How often do simple fibrous tumors kill from hæmorrhage? On this point there is no exactness. Some maintain that life is almost never in danger from them, and that it is better to let well alone. Then Mr. Thornton tells us that he has removed a large number of ovaries to check the growth of bleeding fibroids, and that he only operates when life is threatened. Some assert that these tumors are rarely fatal from simple hæmorrhage, while Mr. Tait tells us that he has seen many die from this cause alone. Then, details of a large number of operation-cases are much wanted, especially of the failures, for successful cases tell little. A hundred honestly reported cases, such as that given by Dr. Walter of Manchester, in the number of this *Journal* for October 13th, would be of great value. I am often asked what are the best books to read on ovariectomy, and I name first the volume of cases published many years ago by Sir Spencer Wells. It is a record of experience without expression of opinion, and you are left to draw your own conclusions. Such a series of cases of hysterectomy would be as valuable now as these cases of ovariectomy were when given nearly twenty years ago.

For myself, I was slow to begin this operation. Many uterine tumors had passed through my hands. The greater number gave no trouble whatever; a few even disappeared; and many—I may say hundreds—got over the menopause with little disturbance. But some—not a large proportion certainly, and, if I were to make a guess, I would put it at about 5 per cent.—suffered horribly, year after year, and, at the time, death would often have been welcome. Now I sometimes see certain of these old bad cases enjoying a fair amount of health, and able, in every way, to live like other people. Wishing to have the patient's view of the situation, I tell them that nowadays their tumor would be removed, and that, had they lived a little later, much of their former sufferings would have been spared them. The reply has invariably been, "I am so thankful that I had no operation." I never had one in my own practice die from simple hæmorrhage, though many have, at some time or other, seemed to be very near it.

The first operation for the removal of a fibroid tumor done by me was ten years ago. It was a case of rapidly growing fibrous cystic tumor with much solid, and it was mistaken for an ovarian tumor. I had long expected that this mistake would some day happen to me. It had come to others, and I knew I could not always escape, for the diagnosis is difficult. I was thus not quite unprepared for it. A very thick stump was kept outside, as near as was possible, by Kœberlé's instrument; but, from the distension that came on a few days afterwards, part of the large sloughing mass passed inside the abdomen, fortunately without doing any harm. The second, done a year later, was almost

forced upon me by the patient herself. Her sufferings were great, and long protracted, for suppuration was going on in part of the tumor. She almost died on the table from hæmorrhage a few minutes after the operation was begun. The next one operated on was a nurse, on account of a bleeding fibroid. She could no longer earn her bread, and she had no friends to fall back upon. There was alarming secondary hæmorrhage a week after operation, nearly proving fatal. This accident gave me such a fright, that no more were operated on for three years, when a young woman, twenty-three years of age, was done. She was under observation for two or three years before. The tumor weighed 27 lbs. Menstruation had long ceased, and rapid growth was going on. The left broad ligament enveloped one-half of the tumor, and much enucleation was necessary. Pulse and temperature were high from the first, and the presence of some blood in the urine on the second day was attributed to absorption of carbolic acid. On the fourth night, when all danger seemed to be over, she passed into a state of acute mania; for days she raved without ceasing about her glorified body, till she died nine days after. Under the upper part of the incision, where some of the sutures had given way in her restlessness, was a little matter. In the pelvis all was well, and there was nothing to be seen but the healthy repair of a great injury. The next sixteen cases were successful, and there was a second mistake of a fibrous cystic tumor for an ovarian cyst. Then came the second fatal case, seven days after operation. The local conditions seemed favorable, but the patient was naturally a delicate, feeble woman. She had worked on till she could hardly go on any longer, and the œdematous abdominal wall formed of itself a tumor of the size of an adult head, reaching to the knees. There was no adhesion in front; the tumor moved with the respiration; the condition in the pelvis was satisfactory, and posterior adhesions were never thought of. After a very free incision was made, the tumor would not for some time move forwards. All around appeared a red fringe of very vascular adhesion. One-half of the tumor was embedded in omental intestinal and mesenteric adhesions of such firmness and tenacity that every portion had to be cut. The raw surface on the tumor, which weighed 30 lbs., measured 30 by 31 inches. In addition to all this, there was a curious cystic condition of the mesentery, such as I had never met with before. There were hundreds of small serous cysts, and to get all bleeding stopped amongst these was no easy matter. The adhesions were very bad, but much worse had existed in some of the other cases, and a fatal result, when the patient was placed in bed, was never anticipated. The pulse was rapid from the beginning, yet she took food and stimulants well, never had pain or sickness, and there was no distention. I regretted much that she was not drained, but the case did not seem bad enough for drainage. On the fifth day, two days before she died, I removed three or four ounces of thick syrupy blood from the pelvis. This contained no organism. The cause of death was, however, some form of blood-poison.

With the exception of the cases in which the ovaries were removed to check the growth of bleeding fibroids—and all of these yet operated on have recovered—my list contains every case of uterine tumor with which I have ever interfered by abdominal section. Every operation was completed—some with great difficulty. In two cases, there was a mistake of diagnosis between a fibrous cystic tumor and an ovarian tumor. All the rest were carefully and correctly diagnosed. All were cases of supravaginal hysterectomy. Nearly all were under observation for some

years—some for many years. A gradual deterioration of health had been watched, till the stage of uselessness and utter wretchedness was reached, when death seemed preferable to life. I have never seen such pronounced anæmia as existed in some of these patients; and this of itself certainly does not forbid an operation. The average weight of the tumors—nearly seventeen pounds—shows at least that there was no hurry in interference. All but three of the twenty-four were, from their condition in life, hospital-patients. Their position was laid plainly before them, and they were allowed to decide much for themselves. Some preferred to let bad alone, and these are still working on in more or less discomfort and misery, waiting for the menopause. The argument that life was threatened was never used. I do think that some of the cases had nearly seen the last of their days. Were I anxious for operations, I might ere now have done two or three hundred during the last ten years. Eighteen operations were performed without carbolic-acid spray, with one death. In six done under spray there was one fatal result. He is insane who does not accept, *toto animo*, the antiseptic principle in surgery; but in the surgery of the abdomen I draw the line at the carbolic spray. Some of the operations were extremely trying and difficult to complete in a satisfactory surgical way, or in a way to satisfy one—more especially a few that were half extra-peritoneal and half intra-peritoneal operations.

Most of them were extra-peritoneal, and one was entirely intra-peritoneal. Kœberlé's instrument was at first used, and in the half extra-peritoneal and half intra-peritoneal cases, it is very useful. The broad ligaments were almost always separated off the tumor and tied separately—sometimes left in, sometimes secured outside, according to the circumstances of the case. Great enucleation was often necessary, especially in the large tumors, in order to get the wire placed as low as possible when there was no cervix. The bladder was half a dozen times dissected down. It sometimes rose as high as the umbilicus, and its size was often remarkable. It is not an easy matter to distinguish its edges sometimes, if the ordinary stupid direction be followed, that the bladder be emptied before the operation is begun. Leave it full, and bladder-difficulties are wonderfully modified. One case was so simple, that the operation lasted barely half an hour; three times, the time of the operation was two hours; the average time a little over one hour. When practicable, there is no more convenient plan of extra-peritoneal method than that of the good old clamp, made of a very large size, and, if the parts below be first constricted by one or more wires, there is no difficulty in closing the wound properly round it. The ovaries were more or less enlarged and diseased in every case. In one there was an enormous psoepinx, the Fallopian tube resembling a piece of dilated intestine seven or eight inches in length.

In five of the twenty-five cases, and these were the cases of small tumors, operation was commenced in the hope that removal of the ovaries would be practicable. It was found impossible to remove them, and even sometimes to get near them; or when got at, one or both were so adherent, that it was safer to go on and remove the whole tumor. This must happen sometimes to others, if it has so often happened to me. The tumors on which I operated were, perhaps, too large, and this drawback may not occur in cases of smaller tumors. I shall not soon forget a scene that happened one afternoon in the hospital. The operation was one for removal of the ovaries for great pain, and to check the growth of a small bleeding fibroid; by that, I mean a tumor not extending much



above the umbilicus. It was late when we began, and both ovaries were felt enlarged on the tumor, about the level of the iliac crests. The right, with an enormously dilated Fallopian tube, and enlarged fimbriated end, was close on the tumor. It was ligatured, with barely room to hold the ligatures. The left ovary felt a little larger; only a small part could be got at. A fine long trocar was put into it, and some thick tarry-like fluid came away; but, instead of a small amount, several ounces filled the aspirator. The incision was enlarged, and the hand got in, but, to do this, some adhesion was separated, and there was surface-bleeding. An elongated cyst, closely fixed to the tumor, was now felt extending beyond the reach of the hand, and dipping down into the pelvis. At last, by separating more adhesion, and causing more bleeding, I was able to feel the distal end of the elongated ovarian cyst. It was pulled upon, and gave way, and, with some force, the whole was stripped off the tumor. It was seven or eight inches in length, along with a dilated tube. The wound filled with blood in the most alarming way. Sponges were packed in, and, after waiting for a time, were withdrawn, when the hæmorrhage went on as much as ever. This process was repeated over and over again. I would now fain have removed the uterus, but this was not practicable, from the way the tumor was fixed in the pelvis, and, indeed, almost everywhere. The wound was more enlarged, and part of the bleeding surface was with difficulty brought into view. Some points were stopped by the thermo-cautery, but, on removing the sponges, blood came as fast as ever. The patient was now quite faint, and it was getting dark. A sponge, soaked in perchloride of iron solution, was pushed down, left for ten minutes, and then slowly withdrawn. A large glass tube was left in, and a few stitches introduced, leaving nearly half the wound open in the centre. As the patient was lifted into bed, blood was again filling the opening. Pressure of cotton-wool and a bandage was then trusted to, as she was now quite pulseless, and more dead than alive. Some hours afterwards, on removing the dressing, there was a flat coagulum under the cotton-wool, extending up to the neck, but the bleeding had ceased. It did not recur. Convalescence was painful and very slow. She is now being trained for a nurse. She is free of pain; menstruation continues regular, and is now quite normal. The tumor is a little smaller.

The health of all these patients since the operation continues to be perfect, and in no case has any harm come from the long cicatrix. In none have I seen any hernia, or anything like an approach to it. The after-comfort of the patient is, therefore, in no way affected by the length of the incision, if proper care be used at the time to close the wound very accurately, and not to allow the patient to be going about too soon. The long convalescence is certainly a drawback to the extra-peritoneal treatment in hysterectomy, and my impression is that we must perfect the intra-peritoneal method if we are to make progress and improvement. This brings me to say a few words about the extra-peritoneal treatment of the stump by the clamp, which, at one time, served us so well, but at which some are now throwing stones. The principle of the extra-peritoneal treatment is a sound one. The mortality attending this method was certainly high in the early days of ovariectomy, but much of this was owing to the late stage in which patients were then brought to us. Thus my results in ovariectomy with the clamp give a mortality of 148 per cent. in nearly 200 cases. In the first 100, from the forty-fifth to the eighty-fifth case, there were only three deaths in forty cases; and, in the notes published at the time, it is stated that the fatal results were not caused

by the way the pedicle was treated. This cannot be called a murderous mortality. The mortality of the silk ligature was much higher, and for the simple reason that we had no Lister to tell us to boil or disinfect our ligatures. We boiled our sponges, put the points of all our forceps through the flame of the spirit-lamp, but we trusted to *pure* silk. The principle of the clamp was not at fault, only we carried it out in an imperfect way. The antiseptic principle was, to a certain extent, clearly understood by Kœberlé, Sir Spencer Wells, and others. Wells' dressing—the chalk and tar bags—was an excellent antiseptic dressing, only the antiseptic element in it was not strong enough. At that time I used iron wire instead of silk, and later on the cautery, and, consequently, did not suffer so much in my results as others who used ordinary silk. I am convinced that, if I were to go back to the clamp in ovariectomy, the results now would be very different, simply because the antiseptic dressing would be different. The extra-peritoneal method seems to be at present the favorite one with British surgeons, and is certainly with us the more successful. I do not see, however, that a fixing of the tenth part of the tissue in the wound in ovariectomy should be condemned, when in a hysterectomy ten times the amount is generally treated in the same way.

Truer words were never uttered than those with which Professor Schroeder began his paper, read at the last meeting of the British Medical Association in Liverpool, in August last. "The prognosis of the removal of large solid tumors of the uterus depends altogether on the development of the technical methods of operating." The removal of a simple pediculated fibroid—an operation rarely, if ever, necessary—must be a simple enough matter, and requires no more surgical skill than is necessary in the removal of a simple serous cyst of the broad ligament—also, as a rule, an unnecessary surgical proceeding. But to take away a large adherent solid fibroid filling the pelvis, and to get the patient well after it, is by no means an easy matter. I do not think that the mortality after supravaginal hysterectomy should be greater than it now is in bad cases of ovariectomy. I fear we cannot look for a mortality of only two or three per cent. as we now do in the removal of ovarian tumors. The results here given show a death rate of eight per cent., or one death in every twelve operated upon, and I am mistaken if this cannot be reduced.

After all, the great difficulty is not in doing these things, but in knowing what are the cases in which we are justified in advising those who trust themselves to us to run the risk of a dangerous operation, with all its attendant miseries. Could we get the mortality down to five per cent. in the bad cases, and these only are the fit subjects, we might then advise interference with a more easy mind. I am not sure if we can so advise, if the mortality cannot be kept down under ten per cent.—*British Medical Journal*.

A RAPIDLY FATAL CASE OF ARSENICAL POISONING. By DAVID W. FINLAY, M.D., B.A., Lecturer on Forensic Medicine in the Middlesex Hospital Medical School, and Assistant Physician to the Hospital.

The following case presents several points of interest, the chief, however, being the rapidity with which a fatal result ensued.

Richard H—, aged fifty-one years, a man in moderate health, although not robust, swallowed by mistake, at 8.30 P.M., on February 27

last, nine drachms of a preparation for softening the skin of the hands, supposed to consist chiefly of glycerine, which was contained in a small flask-shaped spirit bottle. He was seized with a feeling of faintness and collapse, and slight epigastric pain. He was brought without much delay to the Middlesex Hospital, arriving there about 9 o'clock; and it was stated that he had not vomited. His skin was cold, and his face bedewed with clammy sweat; pulse slow and very feeble; respiration shallow; pupils moderately dilated, but acting to light. He presented generally the appearance of collapse, and complained of headache and pain at the epigastrium, with a sense of constriction across the chest. He was quite conscious, and kept spitting to clear his mouth of viscid mucus. An emetic of mustard and water was immediately administered, but did not induce vomiting, and the stomach-pump was then used, the stomach being well washed out. The matter removed from the stomach appeared to consist almost entirely of the mustard and water which had been given as an emetic. Some brandy was then administered, and he was removed to the ward and put to bed between warm blankets, hot bottles being also applied. Notwithstanding, he speedily became pulseless, and although stimulants were freely given, he rapidly sank and died at half-past nine o'clock, one hour after swallowing the fatal dose.

At the post-mortem examination made by Dr. Fowler, the mucous membrane of the larynx was found moderately congested; the trachea was brightly injected throughout, and, with the larger bronchi, contained some very viscid mucus. The lungs were emphysematous and engorged. The right cavities of the heart contained some fluid blood and clots, the left were contracted and nearly empty; the valves and muscular substance were normal, but the endocardium of the left ventricle showed numerous ecchymoses. The liver and kidneys were congested, the spleen normal. The stomach contained about six ounces of turbid fluid, consisting apparently of brandy, mustard in solution, and viscid mucus. The mucous membrane was intensely injected; there were also a very few small ecchymoses, but no erosion of mucous membrane. The duodenum and jejunum contained pale pultaceous matter; the contents of the ileum and colon were brown and semi-solid. The bladder was contracted. It was, of course, sufficiently obvious that death was due to poison, but there seemed nothing either in the symptoms or post-mortem appearances to point conclusively to the particular poison, and hence at the inquest which was held an analysis of the stomach and its contents was ordered. This resulted in the detection of arsenious acid in large quantity, both in the matter removed from the stomach at the post-mortem examination, in the tissues themselves, and in the small quantity of fluid left in the bottle from which the unfortunate man had swallowed the poison.

What remained of the latter, together with the quantity which the bottle was known to contain by a mark left on it in consequence of the length of time the solution had remained in it undisturbed, supplied data for an estimation of the quantity of the fatal dose. The former, amounting to half a drachm, converted into sulphide was found to represent exactly a decigramme, or rather more than one grain and a half of arsenious acid, and the total quantity of liquid in the bottle, being nine drachms, would equal twenty-seven grains and three-quarters. Deducting from this total the quantity left in the bottle, the conclusion is reached that upwards of twenty-six grains had been swallowed. The fatal period is one of the shortest on record, indeed I am aware of only one instance

in which a more rapidly fatal result ensued. This occurred in the case of a youth, aged seventeen, who was stated to have died within twenty minutes after a large dose, the symptoms being of a tetanic character. Reference is made to it in Taylor's "Principles and Practice of Medical Jurisprudence," Vol. I., page 256, second edition, but details are wanting. In the present case the largeness of the dose, its state in solution, and the comparatively empty condition of the stomach, all of which would favor rapid absorption, sufficiently account for the speedy death. The same considerations also account for the somewhat abnormal character of the symptoms, those referable to the stomach being slightly marked, while collapse was profound and conspicuous. Such cases lend support to the opinions expressed by M. Vryens, whose experiments and the conclusions drawn therefrom are set forth in the "Archives de Physiologie," Vol. VIII., 1881. The latter are to the effect that the fundamental character of arsenical poisoning consists in a perversion of the entire nervous system, and that the pneumogastric, sympathetic, and vaso-motor nerves especially are paralyzed or reduced to a state of paresis.

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ON BANDAGING THE INFANT.—In his retiring address, Captain Douglas Galton, President of the British Sanitary Institute, delivered a philippic against the baby-bandage. He condemned what he described as "those mischievous two yards of calico," which, wound round the middle of so many infants on their introduction into the world, as a sort of baptism to the numerous evils of fashion in dress to which they were admitted, constricted and hindered the expansion of that very region of the body where heart and lungs, stomach and liver, organs of no mean importance, were struggling for room to grow and do their work, and where natural mechanical conditions threw some difficulty in the way of full development. The expansion of the lower part of the chest, which was so pronounced a feature in the well-formed human figure, was attained chiefly in higher animals, and, like most of such higher prerogatives, was the result of more than ordinary effort, and was, proportionately, liable to suffer from interference. The chief effort to accomplish it was made soon after birth, when breathing and food-taking, and the various changes incidental upon them began; and at this very juncture the opportunity was taken by meddling hands to hinder the expansion of the region where these new processes, upon which the well-being of the whole fabric depended, had to be initiated and carried out. A more pernicious device could scarcely be conceived than this relic of antiquated nursedom; and it was impossible to estimate the number of deformed or pigeon chests, of hampered stomachs, livers, lungs, and hearts, with their varied attendant life-induring infirmities and curtailment of life, that must result from the use of these "swathers," as they were called, for which there was not the slightest necessity. The oft-condemned tight waistbanding and lacing of after years, which affected only the small fashionable section of one-half of the community, was not, even in those who were subjected to it, so mischievous as this concealed semi-strangling process which was diligently carried out in the case of a large proportion of infants of all classes. Of the three demands of the infantile period—liberty of movement, fresh air, and good food—it seemed strange that the first two should be limited by smothering bed-clothes, swathers, long petticoats, and other devices, together with imperfect ventilation of rooms, while the last was liable to be supplied sometimes in sufficient quantity and bad quality, but often, whether good or bad, in superabundance.

## ORIGINAL CORRESPONDENCE.

DEAR SIR: In No. 18, Vol. XLI., of the Philadelphia *Medical News*, appears an editorial on clinical obstetrics, in which curious practice is advocated. The learned writer does indeed admit that "there may be circumstances under which such a procedure would be manifestly improper." Precisely what those conditions are we are not privileged to know, but presume one obvious one would be the woman's relation to the author, for it would be clearly "improper" thus to treat his mother, sister or wife. Another class which we infer from the article should be exempted are those whose purses have been so filled (no matter how) as to enable them to pay the fee of a decent and respectable physician. With one curl of the lip and one dignified sneer at "exposure" and "humiliation," he strikes from the question the possibility of pauper modesty. We have seen patients whose misfortunes have thrown them upon the charity of the world, and we have seen those whom a life of degradation has brought to the same traits; but we have yet to see the first human female, sober and sane, in whom there was not a fundamental principle of feminine modesty, to be crushed only by external "circumstances." In order to render the editorial "exhaustive," we are referred to the "great benefits to the community" resulting from the practice, without however deigning to favor us with a single example, and we think it would be quite safe to challenge the editor, or any teacher of obstetrics, to name one. There is no doubt that the practice will bring students to our "colleges and hospitals in thousands." Wonderful argument. So did the exhibition of "living artists" bring to the theatres of New York in 1848-9 thousands who were anxious to perfect their tastes in the fine arts, especially that of sculpture.

What are the facts? Most obstetric instruments are intrapelvic in their use and before reaching the scene of their work are entirely out of sight both to operator and looker-on, and the "light" is of no earthly use to any mortal in the case. But a properly constructed model or machine will enable a teacher to exhibit to his class the introduction and application of the instrument to the foetus, and every stage in its use.

Nor are the evils of this pimpish practice confined to the clinique, nor yet to their pauper victims; but the thousands who are thus induced to rush to such schools and hospitals scattered through the country find it easier to imitate the vices than the skill of their teachers, and practice their modern instructions upon lady patients who are as far from "pauperism," or low "moral tone" as are the friends of the editor, and that, too, in the simplest cases of instrumental or natural labor or miscarriage, referring in justification of their conduct to the modern principle that science and suffering humanity are sexless. These are no fancied sketches of the vicious results of such teachings, but to our knowledge are truthful portraiture of the "evil egg of an evil crow." Had we no regard for the feelings of our patients, it seems to us some regard should be had for decency in *our mother's son*.

Truly Yours,

G. A. WILBUR, M.D.

Skowhegan, Maine, January, 1884.

## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—ED.]

## MEDICAL SOCIETY OF LONDON.

THE ordinary meeting of this society was held on Monday, December 17th; Sir Joseph Fayrer, F.R.S., president, in the chair. The evening was the occasion of a characteristic and able address by Sir Andrew Clark, Bart., followed by an interesting discussion, in which Sir Henry Thompson, Mr. Savory, and others took part. After the official adjournment of the meeting, the chief battles were fought over again, so to speak, *en famille*, in which all the principal combatants joined issue.

Sir Andrew Clark read the following paper on

## CATHETER FEVER.

GENTLEMEN: Somewhere about the year 1850 one of the medical officers of Haslar Hospital, between fifty and sixty years of age, of nervous constitution, but apparently robust in health, requested me to examine his urine. Accordingly I submitted it to as careful an examination as I was then competent to make, and all that I could find against it was that it was too great in quantity, too low in density, and too pale in color. He then informed me that he had trouble with his bladder, that he meant to consult Sir Benjamin Brodie, and that he wished me to accompany him for that purpose to London. Sir Benjamin examined his patient, drew off a large quantity of urine from the bladder, told him he was suffering from simple enlargement of the prostate, prescribed the regular use of the catheter, and with a few general cautions against a careless diet and exposure to cold, he quickly but kindly dismissed us both. We returned to Haslar. In about a week the patient was free from local discomfort, and without complaint of his general health; but then he began to feel and to look ill. He complained of malaise and weakness and general pains. He lost his appetite, was tormented by thirst, had nausea, became feverish, took to his bed, got daily worse, and, notwithstanding the efforts of his colleagues, who could not agree as to the nature of his malady, he died in about three weeks from the beginning of his illness. No post-mortem examination was made or allowed. The case, here so imperfectly narrated, made upon my mind an impression which has never been effaced; but until about the year 1865 I saw no other case exactly resembling it. In that year I was summoned by Mr. Peter Marshall to visit a gentleman suffering from fever. Certainly he was in what is called vaguely by our elder brethren a typhoid state. He was between fifty and sixty years of age. He was lying on his back in bed, apparently in a state of great prostration. The face was faintly yellowish and mottled, the lips dry, the pupils dilated, and the breath fetid. The tongue was small, brownish-red, dry, tremulous. There was complete anorexia. The bowels had been imperfectly relieved. The urine, habitually removed by the catheter, was low in density, acid, deposited on standing a little muco-pus, and containing a small quantity of albumen. The heart's action was quick and frequent; the pulse small and compressible. The bases of both lungs were congested. The skin, subicteric and for the most part rough and dry, was here and there, chiefly about the hands and feet, bedewed with watery sweat. The acuteness of all the special senses was blunted; and the patient, dull, heavy and indifferent, could yet be roused

to speak and answer clearly questions put to him. The temperature of the body at the time of the examination in the afternoon was  $103^{\circ}$ . The history of this case resembled that of the case first narrated, and first seen by me. The patient, supposed to be healthy, but suffering from an affection of the bladder, was, a few weeks before my visit, enjoined the daily use of the catheter, did well for about a week, then became ill, and fell suddenly into the condition in which I saw him. Neither Mr. Marshall nor I ventured to form a definite diagnosis of the nature of the patient's malady; but remembering the case at Haslar, I suggested that the fever, which we agreed was not a specific fever, had originated out of the condition begotten by the entrance upon catheter life. I saw the patient only once. The remedies proposed—the food, the alcohol, the quinine, and the aperients—were all of no use to the patient, and he died within a week of our consultation. With great difficulty permission was obtained to make a post-mortem examination, and although it was made with both care and interest (for I was interested in the matter), nothing definite was found outside the bladder, and nothing in it sufficient to necessitate or account for death. The prostate was enlarged, the bladder was dilated and thickened—viewed from the inside it was trabecular and slightly saccular—the mucous lining congested and in part eroded, and everywhere coated with a grayish-white, stinking mucus. There was nothing to be detected in the urethra or kidneys, although they were examined carefully. I was accustomed to such examinations, and neither Mr. Marshall nor I could say anything better of the cause of death than that it was due to irritative fever.

The study of this case gave birth to the opinion, now in my mind a confirmed belief, that the entrance upon catheter life occasionally gives rise to a pernicious fever which, in the majority of instances, destroys life, and sometimes, without the intervention of any sensible structural change, is sufficient to account for death. Since 1866 every year has added to my experience of such cases, and for over ten years at least I have been in the habit of mentioning such cases to surgeons with whom I have had the privilege of consulting. From Sir James Paget, and especially from Sir Henry Thompson, whom I have often met in such cases, I have received at various times much important information; but as I have received from neither of these distinguished surgeons explanations completely in harmony with my own experience and thought of such cases as the one just narrated, and as further information might be now in their possession, or in the possession of others, I ventured, upon a recent occasion at the Clinical Society, to mention the subject in the way in which it has occupied my thoughts, and to invite from my surgical contemporaries their latest experiences and conclusions concerning it. The constitution of the Clinical Society did not permit abstract questions of this kind to be discussed; therefore, at the request of several persons, I have brought it before you to-night. My remarks finding a place in the medical journals, and being by them widely disseminated, have elicited from practical surgeons in all parts a variety of interesting and instructive communications concerning the nature and causes of the fever which occasionally follows casual or habitual catheterisation. Nevertheless, as the exact character of those remarks which I made has been, doubtless by my own fault, misapprehended, and as the subject is of such importance as not only to justify but to require that statements made respecting it should be accurate and clear, I gladly, as I have said, comply with the request made to me from various quarters to reopen the subject.

Now, it is not my intention on the present occasion to narrate a series of cases, and to build thereon a dissertation upon what, for the sake of provisional convenience, I have called catheter fever. I have not, indeed, at my command the materials necessary for such an undertaking, and if I had, devoid as I feel myself to be of the enlightenment and strength which flow out of the surgical

instincts begotten by long surgical experience, I would not attempt it. I have seen many cases of catheter fever, but I have never had charge of one. I have visited my cases only occasionally, and in consultation with other practitioners, and almost always my colleagues have been too busy to keep and to furnish me with minute and continuous records. Indeed, from the present temper of the public mind, the fear which patients have of being made the subjects of experiment, and the demands so thoughtlessly and even cruelly made upon a practitioner's time, it has become increasingly difficult to keep clinical records of any case for oneself; and the public, in what I must call its vicious stupidity, is thus hindering us from helping it so well as we might otherwise have the power to do. But although my records of individual cases of catheter fever are thus, from the necessity of the case, incomplete, I venture to think that, both by the study of their salient characteristics and by the questioning of those in charge of them, I have learned at least enough of their nature and importance to justify me in making certain propositions and in asking certain questions concerning them. The statements which I purpose making about this catheter fever will be most conveniently embodied in a short series of propositions. But before submitting them to your consideration and criticism, it will be necessary, in order to obtain a clear and comprehensive understanding of the underlying subject, to discover the origin and to follow the historical development of those ideas which have shaped the theories of surgeons and determined their lines of practice. I have placed here a table, which I regret to say is imperfect. It is a table prepared by my assistant, Dr. Delépine, who has devoted to it most careful study and conscientious care, and it has, on account of the deficiency of indices to books, occupied an amount of time and caused a degree of labor which you can scarcely imagine. I shall have it, for further purposes, completed; in the meantime it will enable those who do not follow me closely in reading to determine for themselves the order and development of the ideas which have been promulgated concerning this subject. I shall not, in my retrospect, follow as minutely as is here followed the development of these ideas, but I shall take the leading ideas, for by holding to these leading ideas alone I think we shall be able to survey the whole field. (Table omitted: not necessary.)<sup>4</sup>

In 1800 it was known, but not distinctly expressed, that surgical interference with the urethra and bladder was sometimes and in certain circumstances followed by an irritative fever. It was not, however, until 1810 that Moffait, as quoted by Velpeau, described a case of chronic stricture of the urethra, in which simple catheterism was followed by rigors, irregular fever, purulent arthritis (as it is called in France) and death. In 1832 ideas concerning the causal relationship of catheterism to consecutive fever first found form and expression in the writings and teachings of Brodie and Velpeau, and perhaps of Civiale. Brodie distinctly, and even emphatically, mentions the dangers of catheterism, and describes, as occasionally occurring in consequence of it, paroxysms of irregular fever like ague, and leading sometimes to prolonged debility, sometimes to continued fever with rheumatic pains, and sometimes even to mania. He further says that in such cases death may follow, but he cites no case of its actual occurrence. Velpeau enters much more minutely into the nature and relations of fever thus mentioned, and contributes several new ideas to the further development of the subject. He alleges that in some persons perfectly healthy, not exposed to the influence of malaria, even easy catheterism may develop a consecutive and continuous fever, and that this fever has five varieties. In the first it consists of a single paroxysm of fever, ending in malaise and debility, with recovery in a few days. The second consists of recurring paroxysms of fever issuing in continued fever, and oftentimes fatal. The third consists of an inflammatory fever arising out of nephritis, phlebitis, or other local inflammation. The fourth consists of fever associated with purulent arthritis. The



fifth consists of a rapid succession of violent paroxysms of fever, speedily ending in collapse and in death. Velpeau then points out, and very clearly, that in the second and fifth varieties he has never found present at the autopsies any adequate structural cause of death, and in these cases he is disposed to regard the origin of the fever as caused by the absorption of vitiated urinary constituents. But on this, and indeed on similar points of pathogenesis, he is both obscure and vague. Civiale, whose great work is disfigured by passionate claims of priority in this matter (of which claims he furnishes no proof), and by the satirical invective which he launches against the juster and greater Velpeau, gives a full and admirable description of this catheter fever; but whilst admitting that the fever is due sometimes to the urethra and sometimes to the bladder, and contending that the fever of the one differs essentially from the fever of the other, he almost angrily minimises the effects of surgical interference; and, it would seem as if with a judgment disturbed by emotion, contends that in most cases the fever has existed before the use of the catheter, or that it is due to nephritis. (I owe to Dr. Matthews Duncan my best thanks for a letter in which he tells me that he himself has listened to Velpeau setting forth the characters of this very catheter fever to which I am calling attention.) But in a latter part of Civiale's work, marked by greater sobriety of language and a more judicial tone of argument, he distinctly qualifies these strong assertions, changes his point of view, and says that the cause of the fever is vague and uncertain, and that in speaking of its nature we can only guess. In 1858 M. Philips contributed some further ideas concerning the conditions under which this fever is developed. Describing the fever, and in the main following the classification proposed by Velpeau (who, it may be remarked, is the source whence almost all subsequent writers have derived their inspiration, and sometimes their ideas, without acknowledgment), he asserts first that the simplest as well as the severest catheterism, with the largest or the smallest instrument, may originate the fever; secondly (and this is the most important contribution, if it is a true one, which he has made), that the affection of the urinary passage lies behind the bulb, the fever does not follow; and third, that the predisposition to the fever does not lie in the state of the nervous system at all, but in the existence of certain diatheses and in chronic disorders of the general health.

In 1859 Marx, in a monograph of remarkable merit, reviews the state of the question at his time, and contributes to its elucidation and development certain important facts and ideas expressed with great clearness, and used with judicial ability. He adopts a classification of the varieties of catheter fever similar to that given by Velpeau, recognizes uncomplicated cases issuing in death without any discernible structural lesion outside the bladder, quoting eight or nine that occurred in his own experience; asserts that it may occur in persons of perfect health, and that in them, as well as in others not healthy, it may follow upon any state of the urinary organs requiring the passage of a catheter; and finally, he declares with emphasis the fever to be positively uræmic, and ascribes its origin to insufficiency of the kidneys arising out of functional or structural disease. In this work perhaps for the first time the casual relationship of catheterism to catheter fever is most clearly and comprehensibly set forth, and a logical, coherent, and ingenious, if not accurate, theory of the genesis of the fever is propounded. In 1867 the practical, and, indeed, also in some respects the theoretical aspects of this subject were most greatly advanced by the publication of the now classical work of Sir Henry Thompson on the urinary organs. In this work characterized by great force, method, clearness, precision, and knowledge, he mentions the perils of catheterism, gives instructions for averting them, notices the occurrence, in a few exceptional cases, of a low, irritative fever, and quotes Sir Benjamin Brodie to show that

in a few weeks it might terminate in death. Furthermore, he says (and here he differs from almost every one of his predecessors in this line of inquiry) that in all such cases there will be found old-standing pyelitis, with dilatation and marked degeneration of the renal structures, and that in no circumstances could such patients long survive. Looking at the unrivaled experience of this distinguished surgeon, and remembering how often I myself have consulted with him about cases such as this I am now considering, I confess to a feeling of disappointment that he has not made time to give to the profession a more serious and adequate account of this important matter, which he must know better than almost any one else. In 1867 the distinguished president of this society, Sir Joseph Fayrer, gave an admirable account of the varieties of catheter fever, declared, if I understand him aright, that the predisposition to it lay in the malarious state and its consequences, or else in incipient or advanced disease of the kidneys or other parts of the urinary tract; that it began (and from him we have for the first time a clear and express statement on this point) in reflex disorder of the nervous system; that it was not toxæmic, and that catheterism alone, without injury or sensible irritation, was in these circumstances sufficient to originate the febrile phenomena and process. In 1868 Sir James Paget notices this fever, and makes some remarkable additions to our knowledge of it. He says that when the urine is of low density and abundant, when the patient is gouty, dyspeptic, or otherwise chronically disordered, when having a stricture, it becomes irritable and weakens the health; or when, being old, something has occurred to cause temporary depression of the health, catheterism will be specially dangerous, and may bring about a fever ending in death. He leans to the opinion, but does not distinctly express it, that renal degeneration is the cause of the fever, but admits that so far as his own experience goes the cause is apparently inadequate. Lastly, he states that the mortality of such cases is from three to four per cent., which, even with my grave views of the subject, is a much higher ratio than my own experience would have led me to expect. In 1871 Banks, of Liverpool, describes the effects of simple catheterism, and classifies them into three varieties: first, rigor with malaise, recovering speedily; second, rigor with malaise and prostration, followed in a few days by fever and death; and third, cases of shock, producing death within sometimes a single day. Admitting that renal disease predisposes to such attacks, he denies that they are due to suppression of urine, and he ascribes them to shocks of greater or of less severity propagated through the sympathetic nervous system. Here the nervous theory begins to preponderate over the other. In 1873 Malherbe, in his work on "Fever of Diseases of the Urinary Passages," presents a fairly just account of the state of our knowledge of this subject at the time of publication, and he adds certain important cases of his own. These cases are illustrated by a number of interesting and instructive temperature charts. He avers that the fever may arise without local irritation, describes it as uræmic, alleges that the predisposition to it is renal, and whilst admitting—nay, giving evidence of the admission—that in some cases, not a few, no structural lesions are found after death, he yet holds to the hypothesis that the origin of the fever is in renal imperfection.

In 1877 Mr. Marcus Beck contributed to the further elucidation of this subject two important papers bearing upon them the marks of practical knowledge, accuracy of observation, and careful thought. Describing the fever in which death may occur in from nine to forty-eight hours (and not, as I found, noticing the longer fever of which I speak), he holds that the predisposition to it lies in chronic disorders of the health, in renal imperfections, and in age; that the exciting cause is probably mechanical irritation or lesion of the urethra, and that the fever is begotten through irritation of the spino-cerebral and sympathetic nerves reflected upon the kidney, and bringing about structural or other in-

sufficiency thereof. Beck strongly supports the hypothesis that the fever is uræmic.

Now, without carrying it further, it will be seen from this rough historical retrospect that catheterism is occasionally followed by a fever, which has received the various names of urethral fever, urethro-vesical fever, urinary fever, uræmic fever, catheter fever, and so forth; that in some cases this fever is dependent upon, or associated with, purulent arthritis, ordinary pyæmia—what is known in England as surgical kidney or interstitial nephritis—and that in a small, but still noticeable, percentage of cases no adequate structural cause of death has been found. Now, it was of this last variety of fever that I spoke upon a recent occasion at the Clinical Society, and it was of this variety alone that I made, or mean to make, the following propositions:

First, that about middle life in men perfectly healthy, or with no discoverable evidence of disease, except perhaps, and even that not always, a low density of urine, the commencement of the habitual use of the catheter, is sometimes followed by fever of the remittent type, which often ends in death, and that for the fatal issue in such cases no adequate structural explanation can be found. Secondly, that it is important that such a fever, arising in the midst of apparent health from such a seemingly small cause, and leading so often (as it certainly does) to a fatal issue, should be well and widely known, lest death should take the friends of the patient by surprise, and arrangements necessary to the welfare of a family should be left unmade. Thirdly, that although it is well known that in persons affected with renal disease, or with chronic gout, or with grave disorders of the general health, the commencement of habitual catheterism is attended with peril to life from secondary fever, the fact that this fever may arise in what seems to be good health, and without the mediation of any visible structural lesion, issue in death, is not well known—or at least well known only to a few—and has, I repeat, no adequate place in English surgical literature or in the English surgical teaching of this time. Of course this knowledge will be found, as I have in a very imperfect way shown you, in special monographs and papers, but those are the luxuries of the few, and for the most part the luxuries of specialists who work in that direction; but such knowledge should be, as I think, fully imported into all our common text-books, and so made accessible to the whole body of the profession. Fourthly, that this fever is neither distinctly uræmic nor distinctly pyæmic; that, although having some of the characters of each, it has all the necessary characters of neither; that probably it begins in the nervous system; that probably the disturbance of the nervous system reacts in the first instance upon the general metabolism of the body, and in the second instance upon the secretory organs, beginning with the kidney; that the effect upon the kidney may consist either in structural alterations of the kidney, invisible by the aid of our finest instruments of research, or (as seems to me much more probable) in alteration of the constitution of the blood, that dynamic condition of its constituents in the renal vessels essential to the elaborative action of the secretory cells thereof; and lastly, that the concurrence of these conditions may, and often is, enforced by septic reabsorption into the blood. Fifthly, that a more complete knowledge of this variety of fever, and of the conditions of its origin, maintenance, and increase may, at least we may hope, lead to a material diminution of its mortality; and that even now, by treating in a serious manner entrance upon catheter life, by taking the precautions set forth by Sir Henry Thompson, by great temperance in the use of foods and stimulants, by rest, warmth, and by other general means upon which I shall not now dwell, such mortality, I repeat, may be possibly considerably diminished.

Of these propositions the one at the present moment most open to attack is the fourth, wherein it is asserted that this fever is not distinctive and exclusively

uræmic. For in these days it has come to pass that almost every writer of distinction adheres to the view of the uræmic origin and nature of catheter fever, or of the thing known under that and other names, and I am, as it were, left by myself very imperfectly armed to oppose it. I oppose it. I ground my opposition to the exclusively uræmic theory upon the fact that the phenomena of catheter fever, not as they exist at a particular moment, but in their assemblage and in their progress together, are different from those of the ordinarily recognized uræmia. The duration is at once longer and shorter—longer than that of acute uræmia, and wanting its headache, its perversions of sensation, its changes in the urine, its convulsions, its profound coma; shorter than that of chronic uræmia, wanting its neuralgias, its recurring headaches, its defects of sight, its fleeting paralyses, its itchings of the skin, its vomiting, its characteristic breath, its attacks of dyspnoea and palpitations, its painful nervousnesses, its low temperature. Furthermore, the urine of the catheter fever of this variety, at least of catheter fever, is always loaded with micro-organisms of various kinds, and although it is deficient in urea and contains more or less albumen, it deposits no tube casts and it is capable of amendment. Lastly, whilst chronic uræmia issues in death, catheter fever may issue, sometimes does not issue, in complete recovery. Sir Henry Thompson may remember that I saw with him a distinguished nobleman not far from Oxford street, who had to make an entrance upon catheter life, and he very justly and wisely warned the relatives that it was a serious procedure, and that perhaps he might suffer constitutional disturbance after the starting of this mode of life; and it happened that he did suffer this constitutional disturbance. It happened indeed that he had a mild variety of this fever which I am now describing, and that it continued for between a fortnight and three weeks. Eventually, with Sir Henry Thompson's help, he recovered, and I think I may say now, five, six, or seven years afterwards, he is in good health at an advanced age. Except in its long duration, in its occasional rigors of great severity and its exceptional clearness of mind, the phenomena of what is called endocardial fever resemble more nearly those of the fever which I have called for the moment catheter fever, than any other malady with which I am acquainted.

Two questions of a practical kind arise out of this study of the history of catheter fever. The first is this: seeing that by almost universal assent the fever originates at least in a disturbance of the nervous system, and seeing furthermore that in the cases accessible to me at least there is no account of the fever following in cases where narcotics or anæsthetics have been used, may it not be that the fever is capable of being cut short by the administration on entering upon habitual catheterism of narcotic or anæsthetic remedies? I remember that my great master, Syme, in Edinburgh, for a reason which his instincts very often knew better than his understanding, invariably gave his patients whom he had to catheterise frequently a grain or two of opium from the very beginning, and I must also add that he was singularly free from catheter accidents. The second question is this: assuming the presence of the fever, and seeing that quinine has signally failed in controlling it, what are the drugs to be employed on such occasions? and what is the sort of hygienic management to be followed, especially in respect of food and alcohol, which are so variously used on such occasions in order that the fever may be brought, if that be possible, to a successful ending?

Such, then, are the main conclusions which I have drawn from my fragmentary studies of this form of catheter fever. I know that they are incomplete; I even fear that they may be inaccurate; but, however this may be, I submit them to your consideration, and I console myself with the reflection that they may call forth the ripened experience of practical surgeons, who, in this matter, furnished with a larger knowledge and a more practiced judgment, may

be able not only to correct me where I am in error and to confirm me in any small point where I may have caught the truth, but to supply us with the very sort of knowledge which at this juncture we need and ask.

A vote of thanks having been passed to Sir Andrew Clark for his paper,

Sir Henry Thompson said: Sir Joseph Fayrer and Gentlemen—I received a very courteous invitation from your secretary to take upon myself the very responsible task of opening the discussion upon Sir Andrew Clark's paper. I may perhaps be permitted to premise that, in common with the rest of you, I hear this paper for the first time. You must not suppose that the acceptance of the position I have taken has carried with it the slightest information as to the line that Sir Andrew Clark would follow, or of any facts that he has brought before us to night. Had I had that advantage, I might perhaps have been able to offer you a better *résumé* of what I might desire to say respecting it. You find me, therefore, rising with an enormous amount of matter in my mind which I hear for the first time, admirably arranged, and resulting from the diligence of Sir Andrew Clark, with the careful power of organizing what he has to deal with which he so manifestly possesses.

I desire in the first place, if I can, to see how I may divide this large amount of matter in an orderly way so as to deal with it in detail. I must thank Sir Andrew Clark in the meantime for the opportunity he has given us of discussing this question. A more important question can scarcely come before us in connection with this department of surgery, and which, having naturally seen a good deal of, I should be glad to endeavor to throw any light upon in my power. First of all, I desire, with great deference, to object *in limine* to the title itself of "catheter fever." I do not think Sir Andrew Clark holds very keenly to it, for he said "What we may call catheter fever." I must object at present to the term, and I think we shall see before I have finished the ground upon which the objection is made. There is a great deal of information floating in the minds of many of us, without perhaps being distinctly formulated, in relation to this subject, and it is precisely these formulæ which Sir Andrew Clark asks for to-night. He has given us the terms employed to denote this fever by many writers, commencing with Velpeau's, but I think we should do better to adopt the one simple and familiar term of urinary fever, and afterwards discuss how much of that may belong to the catheter, and may have any right to be called catheter fever. I think it becomes our duty first to inquire what urinary fever may be. Sir Andrew Clark has proposed for discussion catheter fever, which is only one form of urinary fever, and he has asked us to discuss one particular kind of it, evidently suggested to his mind by the two cases which he saw—one in 1850, which made a great impression upon him, and the other in 1865, which he saw with Mr. Peter Marshall. These two cases I take to be types of the kind of fever that he desires us to discuss to-night. But first, in order that there may be no mistake or confusion as to what it is we are discussing, let me say that in my experience—and I believe I am now formulating the views of us all who have had any experience in the matter—that there are, regarded from a clinical point of view, three distinct forms of urinary fever. The first, perhaps, should scarcely be called an acute fever; it is simple febrile attack. All observers will agree that it may be called an acute transient attack—the most common phenomenon we observe in connection with urinary organs, the urethra particularly, when mechanically disturbed. We are all familiar with it, and it may occur after certain provocation which is not always catheterism. It may happen equally after other disturbing conditions, but, inasmuch as the catheter or the bougie is the implement in ninety-nine cases out of a hundred which thus affects the urethra, the febrile symptoms have been called under the circumstances "catheter fever." But it is really a form of urinary fever—a single paroxysm occurring after provocation. We are all familiar with it as occurring within four or five hours after

that provocation, commonly after the first passing of the urine. Supposing the instrument has been passed at a certain hour, then in three or four hours, shortly after passing water, not invariably, a severe rigor occurs, followed by dry heat and pains in the back, and that again followed by sweating. These symptoms pass away slowly, no recurrence takes place, and the patient is after two or three days as well as ever. That I would call the acute transient attack. The temperature rises rapidly and very often highly during the cold stage; it continues during part of the hot stage, and it gradually falls and ceases to be elevated through the sweating attack. The whole series of phenomena may occupy four or six hours, anything up to twenty-four or thirty-six hours, and it may manifest very different degrees of severity. And this attack occurs in persons who have the most healthy renal organs; but whether it occurs always from one cause I think is very doubtful. Certainly I think it occurs occasionally from a simple absorption into the bloodvessels of some small portion of the urine, and the attack I have described is simply a sign of nature's efforts—a "storm," if I may so term it, produced in the system while nature is getting rid of the poison. I think there is another kind of attack, which occurs solely as a nervous attack, and that the phenomena described may be caused by two conditions there can be no doubt. I think it is the first, the typical form, in which urinary fever is presented—the acute transient attack. The second distinct form we meet with is the acute recurring form. We will suppose that the patient who has had such an attack as I have described having become nearly, if not quite well, two or three days afterwards has another attack. This second attack always gives rise to a certain amount of suspicion or anxiety on the part of the attendants; for mostly some degree of renal implication must be believed to exist. In two or three days, by no means after any regular interval, perhaps he has another, and one's anxieties are increased; but by no means necessarily should there be any alarm in such cases, because we find that they often recover with rest and care, and in connection with treatment of the local disease with which they are most associated, probably stricture. This will cause, perhaps, some anxiety; but after a short time, with a good deal of lowered health, it comes to an end; and after four or five attacks the fever disappears. Such cases are also quite familiar to us, and I think we must regard them as examples of the second distinct type—that of acute recurring fever. Both of these are, I conceive, excluded from the cases which we are especially considering now. The form of case on which Sir Andrew Clark has laid most stress this evening, and out of which this discussion originally arose, is the third form, entirely distinct from those which I have sketched, and it may be called the chronic or continuous urinary fever. I can scarcely, perhaps, describe it better than it was described by Sir Andrew Clark in reference to those two cases. It comes on very insidiously, not necessarily by any smart rigor, with perhaps a little chilliness, and usually in an old man who has had deficient power of passing water for a very long time; then, when it is absolutely necessary for him to commence catheterism, he begins to feel out of sorts, loses appetite, is thirsty, has a dry tongue, is always feverish, but without distinct attacks; meantime the temperature is not much interfered with necessarily, and sometimes not at all. As an illustration of this, I may say that I have been called to two cases of that kind during the last week, the second of which I saw to-day. When first seen there was complete retention; the catheter was absolutely necessary, and forty-five ounces were removed. All possible precautions were taken, and now, on the fifth or sixth day of catheterism, he is somewhat delirious, and in a not very hopeful state. He has a temperature slightly under 98°, taken by myself to-day. The marked difference in this character of this third form is that which I call your attention to—sometimes increased temperature, sometimes a wavy line of temperature from day to day, at others rather below the average, and this latter is a condition which I may re-

mark is by no means a hopeful one. Now, I have not mentioned one class of cases which has been referred to by Sir Andrew Clark, and which I think we have no right to call fever at all—I mean those cases in which death will occur from twenty-four to thirty-six or forty-eight hours after the attack. I have referred to such cases, although Sir Andrew Clark possibly has not seen it, in my writings, but purposely have not classified them with fever because I thought that these phenomena did not come in connection with any feverish condition. This is clearly a case of shock of some kind, and when we know that the simple passing of a bougie upon a young man who has never had an instrument passed before in his life very often produces a rapid fainting fit and then a fit of slight convulsion, looking more or less frightful for a few minutes, but invariably disappearing before long; when we see this happening on the mere passage of a bougie in a perfectly healthy man upon whom some exploration has been necessary, we cannot but be struck with the close sympathy that is established between the urinary organs and the nervous system—and it is therefore not surprising that in a very few and exceptional cases, with no obvious disease existing in the organs, the passage of the catheter sometimes may bring about a fatal result in twenty-four hours, no special lesions being found to account for it. I think these have no right to be included in any discussion under the name of fever, and especially of catheter fever. I will now ask you just to consider what I may call the typical form, in which this third condition of continuous or chronic fever reaches us who are surgeons. But perhaps before I do that I may just advert to one thing which I desire particularly not to forget. Sir Andrew Clark expressed surprise that I should have said that in these fatal cases of urinary fever the autopsy revealed invariably advanced disease of the kidneys and ureters.

Now I have never said anywhere in any part of my writings that such is the case, but only that such advanced signs were found in relation with the chronic continuous form of which I am now speaking associated with long-standing, neglected disease. I have especially limited that remark of mine, and it occupies the last three lines of one of my lectures on this subject. I there state that in no case have I ever seen a fatal event in the circumstances which I am now describing in any other than advanced disease of the kidneys and ureters. Happily, a great many cases do not require autopsy, as in the case, so well referred to by Sir Andrew Clark, of the nobleman whom he and I saw together. That occurred nine years ago, and I believe that gentleman was then sixty-five years of age. I remember the case well. The patient disliked, naturally enough, the restraint necessarily imposed, and was, as all such patients are at the outset, much disturbed on learning that it would probably be essential for him from that time henceforward to use a catheter on every occasion on which he desired to pass water. He was then sixty-five, he is now seventy-four, and that catheter has added that number of years to his existence, which has been passed in comfort and in activity since. Notwithstanding, his case was one of severe and long-standing urinary fever, and I was anxious about the results of it for some time; but the patient has done well, as many, many others have done. Hence, to a certain extent, my inability to supply you with the result of autopsy. Then there is another reason, which is also to the point, that is that in private practice it is not always easy to get autopsies. It is not as in hospital cases. How I miss the enjoyment and the advantage of hospital experience, which, having had for twenty-five years, I was at length compelled to give up. You can imagine that it is not always by any means easy to get the post-mortem examinations we require, nor is it always easy under a very great press of business to find time to make them, but whenever I can make them I always do so. But I repeat, however, what I said in the three lines at the end of my lecture, that I have seen this continuous chronic form appearing in elderly men only after long-standing obstruction of the urethra, and then not without advanced renal disease. Lastly,

let me refer to the case which I said was a typical form of that which often reaches the surgeon. The cases which reach the surgeon have not unfrequently such a history as this : A man of sixty-four or sixty-five tells me that for a long time he has been passing water five or six times, or more in the night, and every hour and a half or two hours in the day. I ask him to pass some, and he does so with difficulty. I observe a dribbling stream of pale water, and he assures me that he has passed all he can. But at the lower part of the abdomen there is an obvious protuberance, and before doing anything further I get his history more completely. He states that he has been in this way for a year. "How much more?" I ask; and then, perhaps, he thinks it may be two. Then, when I ask him, "How long have you been rising two or three times in the night?" he replies, "Well, it may be six or seven years." Then I know full well that I have a case of advanced obstructive disease of the urethra, almost certainly prostatic, and I have to convince him that such is the fact; because, if I simply told him that he had a distended bladder, and that it was necessary to use the catheter, he would not believe it; he would probably reply that he wanted help to check the unnatural flow, and not contrivances for withdrawing it. He is told that his bladder, to use a simile he can understand, is like a cask with the tap at the top instead of at the bottom, and that the reason why he makes water so fast is that he can only pass an ounce or so from the top while the vessel is filled below. It is very necessary that patients should understand this. The catheter is then introduced, and to his great astonishment a number of ounces, perhaps twenty or thirty, of urine are drawn off, and, if the quantity is large, leaving some still there. It is necessary to tell him what is the matter, and to make him see it for himself. On inquiry how this state of things has come about, it often appears that he has neglected his symptoms altogether, sometimes indeed that he has had some kind of treatment for years; but that he has avoided all suggestions that further examination is necessary. Perhaps he has been sent to Contrexeville or to Vichy or somewhere else, and without any benefit; that he has undergone a considerable amount of treatment there and elsewhere. Then he says, "Sir, I have the greatest possible objection to the catheter. I have been told that if I once adopt the catheter I shall be in a worse condition than ever I was, and only add another to my present troubles. The condition of this patient is already damaged irretrievably.

What should be said by the surgeon to such a patient is this—and it is a plan from which I have found great advantage during the last few years, as I have especially mentioned in a recent edition of my lectures, "I will have nothing to do with you if you cannot arrange for remaining without any exercise, in a warm room, perfectly quiet, with gentle careful catheterism as often in the day as may be necessary." He is to be told that it is an important event in his life to exchange a distended bladder for one that has to be maintained nearly empty; and that the change to this new life is one that requires a sort of apprenticeship and the closest supervision. Formerly I was less circumspect, but experience has taught me the necessity for this cautious procedure. For after all, it must be evident that a great number of these cases do exceedingly well without any precautions; if the quantity is not too large no care is necessary. But where the residual urine is considerable, it mostly involves serious consequences, unless great care is taken. Nevertheless, as a most rare exception to that rule, I may say I once saw a man with five pints of urine withdrawn from his bladder, and commencing what Sir Andrew Clark terms his catheter life without any precautions, and without a single rigor being occasioned by it. The reflection, then, which I cannot help making is this: that it is not an attack of any catheter fever, but the want of the catheter at an earlier stage of the malady, which has placed these individuals in their dangerous condition. In these cases, where the patients have been long taking medicine and travelling from place to



place in search of relief, had the catheter been used when there were only six or eight ounces left in the bladder we should have heard nothing of catheter fever. So that you will see the ground of my objection to the term, and will understand my belief that the only association that the word has with this fever is the important fact that the catheter was wanted and was not used. Perhaps in the progress of such a case we may hear that a fatal event takes place some two or three or four weeks after catheterism was commenced. I ask what was found at the autopsy, and I am told that it was surgical kidney. Then I reflect, and I say with equal justice, "Surgical kidney!" Surgical kidney only in the sense that it came to pass through want of surgical treatment at the outset. Surgical kidney and catheter fever are two terms that I do not like to accept in connection with this matter. I think we had better adopt for the symptoms the term of "urinary fever," and for the pathological condition of the kidney a term which shall describe the form which is present; for these symptoms may arise in connection with varied forms of disease of a local kind, and even disease of septicæmic origin. And if in treatment we can carry out the plan I have ventured to intimate in connection with it, I hope and think we shall find that there are less of these fatal results than unfortunately have before obtained. The instruments employed in catheterism were formerly often too rigid, too large, or too carelessly passed, and have occasioned unhappy results. I trust that you will forgive me for having taken up so much of your time. Yet I am very conscious that I have failed to notice several points in the instructive and suggestive paper we have had the advantage of listening to this evening.

Mr. Berkeley Hill said he was surprised that Sir Andrew Clark had not found kidney disease in the second case which he had narrated, where the bladder was obviously diseased. He thought there must have been some obstruction to the flow of urine from the kidneys which would have occasioned renal alteration. In nearly, if not all the cases which he had been able to collect from the records of University College Hospital, marked disease of the kidneys of the nature of an interstitial nephritis existed.

Mr. Savory: Allow me to express the pleasure I have experienced in hearing Sir Andrew Clark's paper, calling attention to a fact of great importance to all surgeons, and one well worn, like many others which are familiar to us, but likely to be overlooked in the multitude of new subjects that come before us day by day. Seeing how constantly catheters and all kinds of instruments are passed into the urethra, and how comparatively seldom it is that any serious consequences follow even when catheters and other instruments are somewhat roughly used, I think it follows that there must be something peculiar in those persons who suffer from the use of them, and of these persons I think we may say that one class consists of those who have mischief in the kidney.

That a large number of persons who experience serious evil from the passage of the instrument, whether it be in the form of fever or something still worse—even to a fatal issue—I cannot doubt that in many of these cases the kidneys are seriously affected. I am also sure that in many of these cases the kidneys are not affected in the ordinary way—that is to say, in ways corresponding to the descriptions which we get in works on certain diseases of the kidney. They are not characterized after death by very striking changes, but that they are affected I think is evident from certain facts which often come before us on careful inquiry during life. I have been accustomed for many years past previous to performing operations, as I suppose all surgeons would be careful to do, to examine into the state of the kidneys; and what I would look to, particularly in these cases, is not whether the kidneys yield a large quantity of albumen, or even a small quantity of albumen, or whether there be in the urine certain forms indicating advanced degeneration; but what I think is of more importance is the estimate of the quantity of urea which the kidneys are sep-

arating from the blood. In many cases I am convinced that the kidneys are in this respect weak, and of all disasters which can happen to the surgeon probably the worst comes from those causes where this condition of the kidneys has been overlooked. In many respects the heart and lungs are organs more immediately vital than the kidneys; but with regard to serious operations, or in considerable shock to the patient, I would rather have thoroughly sound kidneys on my side than even a sound heart or lungs; and I think it is in this respect that the kidneys often fail. Therefore, I should take it that in some of these cases which were said to show no appearance of mischief after death, the kidneys have still been at fault. I was struck during the reading of Sir Andrew Clark's paper with the statement that the urine was low in density. The urine being low in density often suggests to surgeons that such mischief as this may lurk behind, therefore I exclude this class of cases by saying that they form a large proportion of those in which catheterism is likely to be attended with disastrous results. Then, where the kidneys may be perfectly sound, we come to a class which I should think is very rare, in which after the use of instruments we get undoubtedly blood-poisoning, septic inoculation. This subject of blood-poisoning is a very wide one; it presents various phases, and we all know that we can distinguish separate classes of cases of blood-poisoning in this regard. We now come to the cases to which I suppose Sir Andrew Clark more particularly alludes—those cases in which very severe fever (for I would accept the term "fever" without the objection which Sir Henry Thompson takes to it), or even a fatal issue occurs, and in which there is certainly neither renal degeneration nor any form of blood-poisoning. I for one think that there are two distinct sources of fever, or as I would call it, to avoid objection, constitutional disturbance. Fifty years ago there was only one source of constitutional disturbance recognized, and that was the nervous system. Then, as our knowledge of blood-poisoning increased, the interest and importance of this so overshadowed the other that for some years past it seems completely to have shut it out of view, and no surgeon now talks about the nervous system as a source of constitutional disturbance consequent on local irritation. By the way, the term "local irritation" is an uncommonly good one, and I was glad to hear Sir Andrew Clark use it to-night. We all remember the classical work of Mr. Travers on "Constitutional Irritation." When he wrote that book one source only of constitutional irritation was understood, and that source was the nervous system; but so true and faithful are his descriptions of the cases which he gives that by the further light which we now possess it is quite easy for surgeons to read these cases through and separate them into their two distinct classes—to say that one class of these cases belongs to the nervous system and the other belongs to blood-poisoning. I take it that in the cases to which Sir Andrew Clark has more particularly alluded to-night we have a most conspicuous and very striking example of constitutional disturbance produced through the nervous system—in fact, what we venture to call, using the term in a broad and large sense, to which I see no objection, cases of shock, in which the effects of a shock either lingered on towards recovery, or in some cases terminated in death. And there is this remarkable fact, that of all parts of the body no part seems in so close and intimate association with certain nerve centres as is the urinary apparatus. There are many facts bearing upon this: every surgeon must be familiar with the fact, which is confirmed by physiology, that during the administration of anæsthetics after the power of reflex action has ceased in all other parts of the body, it can still be provoked by irritation about the urinary organs. If you decapitate a turtle and wait for some hours, the power of evoking reflex action dies out part by part, but the last part in which you can evoke it is the region of the cloaca. With regard to the urethra and the organs in connection with it, all surgeons have for a long time past been quite familiar with the fact

that certain "accidents," as the expression goes, occur when these parts are dealt with in various surgical ways. It is not merely the passage of the instruments into an elderly person, or a person who has been for some time the subject of disease, but I suppose it must be in the experience of every surgeon that occasionally, even in the very young and healthy, a considerable amount of shock is caused by the introduction of the instrument. I suppose it must have occurred to all of you to see in some cases, even after sounding children for stone, that a decided shock is produced by the operation. I have seen death follow the amputation of the penis, and after death not a trace of injury has been discovered in any part of the body. I repeat, it is surely familiar knowledge to us all that of all parts of the body in this relation, the urinary organs are the most delicate tests of reflex action of what one must call a morbid kind. There is another fact which bears very strongly upon this, and that is the effect of catheterism to which Sir H. Thompson has alluded. We occasionally get faints, and perhaps more often rigors are produced. Now, this subject of rigor is in itself one of great importance. We all know that there are rigors and rigors. First of all, there are physiological and pathological rigors. There are rigors from mental emotion, rigors from cold, rigors from fear, rigors which are unattended by rise of temperature, and these we would call physiological. Then we come distinctly to rigors which are attended by a rise of temperature, and then we have what we may call pathological rigors. Now, although it is perfectly clear that in the great majority of cases severe and prolonged rigors, especially those which are attended or followed by sweating, indicate septic absorption, yet it must be clear also that we have rigors which indicate nothing of the kind; and if I were asked to defend this position I do not know that I could take any stronger case than those rigors which immediately or very soon afterwards follow the introduction of the instrument. Therefore, Sir, as the sum of all this, if I were called upon to attempt to answer the question which Sir Andrew Clark has raised to-night, I should say that those cases to which he has particularly alluded are cases in which constitutional disturbance or fever or pyrexia is produced by local irritation through the nervous system.

Mr. Reginald Harrison laid special stress on the antiseptic treatment of cases occurring in elderly people where the dilated bladder required catheterism. He was in the habit of substituting some antiseptic fluid for the urine which was drawn off, and thought this procedure tended to diminish the liability to the occurrence of constitutional disturbance. He was inclined to accept the septic view of the nature of the fever. Dr. Althaus spoke of different forms of retention of urine; some were of a spasmodic character. Mr. Bennett May made a few remarks on the subject. Dr. Maclagan regarded the view of Sir Andrew and of Mr. Savory, that the nervous system had much to say in some of these cases, as of the greatest significance. His own experience entirely coincided with that opinion. Sir Joseph Fayrer pointed out the greater liability, and the greater severity, of the constitutional disturbance which occurred after catheterism or other surgical operations on the urinary organs when the patient had been, or was, the subject of malarious disease. He dwelt on the value of the remarks from Sir Andrew, Sir Henry, and Mr. Savory. His own experience in these matters in India had led him to views which agreed in many particulars with those which fell from the lips of the three gentlemen mentioned. He also specially alluded to the importance of a knowledge of the state of the kidneys in such cases.

Sir Andrew Clark, in reply, said: I beg to thank you, in the first place, for having so patiently listened to a physician who has been treading upon doubtful ground. The usual formula on such occasions is that "the author having replied, the society adjourned." I think that is an indication of the wishes of the auditors, and, at this hour, it would be impossible for me, without taxing your

patience very greatly, to reply to each individual speaker in this debate. But I can assure the speakers who have done me the honor to criticise my paper that they shall be answered in due time. To-night I will satisfy myself with referring to one or two of the principal objections that have been made.

The first objection has been to the title of the paper. Before I answer that let me say that on a previous occasion I was misapprehended because I spoke without previous preparation, and I determined to-night to speak with previous preparation, and to speak as clearly as it was in my power to do, feeling assured that there could be no longer any misconception of my meaning. But I regret to say—as a body of Englishmen you will forgive me for saying it—I have been as much misunderstood as ever. With regard to the objection to the term catheter fever, I purposely said, and I repeat it, that I used the term for the moment simply for provisional use, to indicate the variety of urinary fever, or whatever fever you like to call it, which I had in my mind. The second statement which I have to make is that the debate, interesting as it has been, has been in a great measure beside the paper. The paper was meant to call attention to a certain form of fever occurring after catheterization, without reference to the reason for catheterization, and attention was fixed on a certain series of propositions which I read as slowly and clearly as it was possible for me to do. Next it has been alleged—or, if not alleged, clearly implied—that, after all, a great deal of fuss has been made about this; that catheterism is a very frequent affair, and that death from it cannot be so common, or we should hear more about it. One of the most careful observers that I know, who deliberately uses his words, estimates the percentage of death at 3 and 4 per cent. It cannot surely be that English surgeons have lost their respect for the value of human life. What does 3 or 4 per cent. mean? Surely a great deal if it involves the lives of heads of families, and I should be sorry to think—indeed I do not think, notwithstanding what has been said—that there is on the part of English surgeons any want of due reverence for the safety of human life. The next objection is one that has been made by Mr. Berkeley Hill, who is surprised that I should have examined cases—and I have examined more than I have stated—of fever following the use of the catheter, and found no evidence of disease, for he (except in two cases) has invariably found it, or it has been invariably found. Will he forgive me for saying that I am equally surprised that a gentleman of his position should have had to make such a remark. How does he make it? Upon his own experience and the experience of his hospital. But what is the nature of hospital experience? Cases that come to the hospital come to it when they can no longer stop out of it—old, worn-out, diseased people. Surely the same reason which makes the prognosis of hospital physicians so untrustworthy makes the statement of the surgeon not tenable. When you hear people putting the duration of kidney disease at about eighteen months, you may be quite sure that it is a hospital physician who has said it. And why? Because our active hospital physicians at a comparatively early age, when their experience of private practice, which differs from hospital practice, is not large, meet with cases in the hospital at the end of their journey in life, the poor man with renal disease has kept at work, and has never thought himself ill, however much he might suffer, until he had been obliged to take to his bed, and the young hospital physician usually dates the duration of the disease from the time when the man felt so ill that he was obliged to take to his bed, whereas in all probability the disease may have been going on for 20 years before. Mr. Berkeley Hill finds as his experience that in all such feeble, worn-out cases there has been renal disease. I do not doubt it for a moment, but he makes this upon his own and his hospital's experience, and forgets or does not allude to the experience of other people in the world. Let me tell him that Velpeau gives

several cases in which no lesion has been found in this sort of fever that I have been describing, and his post-mortems were made in the public theatre, not by himself. Then, secondly, Marx, in the very able monograph to which I have alluded, gives six or seven cases in which, with the sort of fever that I have described, and after the utmost care in the examination, no structural lesion could be found. Then I may pass on to Malherbe, who also gives a very fair and complete *résumé* of what is known on the subject, and who himself is an advocate of the opposite theory. Like an honest man, he confesses at once that there are several cases in which, with the utmost care, no structural lesion could be found in this fever, and he gets out of it by saying, "Well, you know, I am sure there was some functional disorder."

Now, after that statement of Mr. Berkeley Hill, and my reply—my reply being that many such cases are on record and placed beyond question or doubt—I repeat that I am much surprised that Mr. Berkeley Hill should have made that statement. Then there is another objection which has been made, indirectly indeed, but still with sufficient force, implying that I was objecting to the use of the catheter. On the contrary, I think the reason why such evils, not as I have been describing, but many other evils that I enumerate in cases following catheterization, have existed, has been because the patient has been unwilling, owing perhaps to bad advice, to begin with catheter assistance at once. That is my feeling, and if it is supposed by any Fellows of the Society that I have any objection to the use of the catheter, I must beg to tell them that they are mistaken. On the contrary, the difficulties which I have seen as a physician being occasionally called into these cases have plainly arisen, as Sir Henry Thompson has said, from the catheterism not being early enough. Let me next refer to the very important observation—and all his observations are both interesting and important—of Mr. Savory. He mentions a point which, I think, if no other point had been brought out this evening, would remain a memorial of a useful meeting. It is that he himself attaches, and he believes that every wise surgeon will attach, more importance to the condition of the kidney than to almost any other organ of the body in approaching the performance of an operation. Sir, it is twenty-eight years since I said that; I am not thinking of priority; but I am only wishing to show that the subject has been in my mind. I do not pretend that I was the first to say it, but I said it at least twenty-eight years ago; and on various occasions since, under the term of renal inadequacy, I have pointed out the great peril which exists in all such cases in performing surgical operations. It is only another illustration that those who are faithful observers can come independently to the same conclusion. I do not think that at this late hour I should encroach further upon the time of this society. I repeat humbly, but believingly, that the subject has not been thoroughly exhausted. There are most important points embodied in my propositions which have not been met in this discussion. I hope that some time—soon—we may be able under another, if not under this aspect, to reconsider this question, and keep closer than we have done to-night to the ground which has been laid open for discussion.—*Lancet*.

MEMORIAL MEETING OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA, AT THE NATIONAL CAPITOL, IN HONOR OF Dr. J. MARION SIMS, held November 21st, 1883; President Dr. A. F. A. King in the chair. Dr. T. E. McArdle, Secretary.

Dr. King stated that the regular order of business would be suspended, in order to devote the evening to hearing the report of the committee appointed last week to prepare resolutions relative to the late Dr. J. Marion Sims. He said that while the profession throughout the world would mourn the loss and

honor the memory of so great a man, he was glad to know that this society would not remain silent. While unprepared to attempt any adequate eulogy of Dr. Sims, he regarded him as an extraordinary genius, whose name would remain immortal in the annals of medicine. Among the greatest luminaries that adorn the professional firmament, Sims appeared as a comet, leaving a path of light that would forever reflect lustre upon the medical art. Reading only lately the old treatment of vaginal fistulæ, he referred to the great boon conferred upon the victims of this malady by the inventive genius of Dr. Sims. In conclusion, Dr. King called attention to portraits of the deceased, kindly loaned by Dr. Busey, and then called upon Dr. Garnett for report of committee.

RESOLUTIONS PRESENTED BY DR. A. Y. P. GARNETT, CHAIRMAN OF THE COMMITTEE.

*Whereas*, the Medical Society of the District of Columbia having heard of the death of our distinguished countryman, Dr. J. Marion Sims, with profound sorrow, and being impelled by feelings of the sincerest sympathy and warmest admiration for the lamented dead, desire to record the expression of their sentiments by the following resolutions :

*Resolved*, 1. That the sad intelligence of the sudden and unexpected death of Dr. J. Marion Sims, flashed throughout the civilized world with electric speed, has communicated to us a shock well calculated to overcome us with emotions of unaffected sorrow and abiding regret.

*Resolved*, 2. That as Americans we feel justly proud of the brilliant and efficient career of this eminent physician, whose original and valuable achievements in the domain of surgery, as well as his wisdom, superior skill and rare tact in other departments of his profession, illustrated a genius and intelligence seldom vouchsafed to mortal man, and which challenged the admiration of the scientific world, and deserved the gratitude of suffering humanity.

*Resolved*, 3. That we shall ever recall the man as one who combined an unusual and attractive beauty of manly form, with a refinement and gentleness of manner, and a genial cordiality of deportment, betokening the "kind, true soul within," which seldom failed to win and fascinate all with whom he came in contact, calling forth the grateful love of woman, and the admiring friendship of man.

*Resolved*, 4. That amongst the galaxy of the distinguished men of our country in scientific achievements, Dr. J. Marion Sims stands forth a grand, central light, illuminating the world of science, and fully receiving not only due recognition and reverential observation from the eminent savans of Europe, but royal homage from crowned heads, and grateful tributes from titled peers.

*Resolved*, 5. That although he had attained the period allotted to man, of three score years and ten, we deplore his loss, because we believe that the light of his genius had not grown dim with years, but that to him we might still look for future discoveries of hidden truth in the yet unexplored regions of medical science, which can only be penetrated and made manifest by a genius like that of Sims.

*Resolved*, 6. That a copy of the foregoing resolutions be sent to the family of the deceased as a respectful offering of our sincere sympathy and condolence.

ALEX. Y. P. GARNETT, M.D.

J. M. TONER, M.D.

SAMUEL C. BUSEY, M.D.

WM. G. PALMER, M.D.

W. W. JOHNSTON, M.D.

REMARKS OF DR. A. Y. P. GARNETT.

In presenting these resolutions, Mr. President, which are intended to express

the sentiments of this Body, I cannot refrain, sir, from adding a few words on behalf of myself individually. I enjoyed the honor of the acquaintance and friendship of Dr. Sims during the last five or six years of his life, and therefore claim the privilege of paying a tribute to this noble man as I knew and apprehended him.

I shall not attempt to present even a brief biography of the illustrious dead, nor is it my purpose to review the numerous and brilliant achievements which illustrated his rare powers and adorned his professional career.

The portrayal of these I leave to others who are more familiar with the history of his whole life; and who have doubtless rendered themselves better competent than I am to descant upon these themes.

Viewed from a social standpoint alone, we find him as much appreciated in the salons of European society, where his merits made him the petted favorite and envied recipient of royal honors, as he was the distinguished cynosure in the arena of professional effort. Almost unequaled in polished refinement and gentle fascination of manner, no one could be brought within the sphere of his magnetic influence without feeling the attraction and acknowledging the presence of an extraordinary being.

From the first moment of my acquaintance with this singularly gifted man I felt attracted to him by a mysterious and irresistible charm never before experienced in the presence of a stranger, and, almost unconsciously to myself, I conceived from that moment an interest which was destined in a short time to develop into lasting sentiments of friendship.

It was evidently through his superlative qualities of character and heart, and rare grace of manner, combined with his irresistible personal presence, that he won the exceptional popularity he everywhere enjoyed amongst men and women, not only in the higher circles of society, but in the humble walks of life.

A prominent and beautiful feature of his character was the kind and sympathetic interest he always manifested in the younger members of his profession. Were I familiar with the private history of his life I could doubtless there find many incidents illustrating this admirable trait. In view of the circumstances which call forth my remarks, it cannot be deemed egotism for me to give an instance of his kind thoughtfulness which considered others, even amidst pressing cares and outside duties, because it came home to myself during his recent visit to this city.

Though in Washington for only a few days, he did me the honor to call several times at my office, and conversed fully and freely of his plans and purposes in regard to his contemplated residence in this city; yet he did not forget to make especial inquiries after the health of my son, with whom he was personally acquainted, and to evince great interest in his professional plans. I can see now the earnest and interested expression of face with which he turned to me and said, when about leaving: "Be sure to make your boy come to see me; write and tell him to keep out of Charity Hospital, and send him to me." This interest was manifested towards the young doctor, not merely to the son of his friend.

Apart from the many personal associations which bound me to Dr. Sims, I may be pardoned, I trust, for referring to one incident of his life while in Europe during the late civil war in this country, which not only enhances the feeling of respect that I entertain for him now that he is dead, but served also as a bond of union between us during his life:

I allude, Mr. President, to the efforts made by the U. S. Representative at the Court of Belgium to induce King Leopold to refrain from bestowing the honor of his order upon Dr. Sims, because he sympathized with the people of his own section in their struggle for self-government. All that official influence, inspired by political and sectional malevolence, could accomplish was exerted against him, on the sole plea that he was loyal in heart to the South; and this

sinister influence so far prevailed, that the order of decoration (intended for merit and distinguished ability, that should have received just recognition from even a national foe) was actually deferred for a time.

I cannot repress, sir, the pride I feel that this great and good man was a native of the South, and that I can stand here to-night and claim for that section of this Union, although remote from the great centres of medical learning and the best opportunities of clinical observation and experimentation, the proud honor of having given to the profession the bold and intrepid pioneer in the art of gynæcology, in the person of McDowell of Kentucky, as well as that genius, skill and perseverance which developed it into a science, in the person of J. Marion Sims of South Carolina.

REMARKS OF DR. JOSEPH TABER JOHNSON.

Mr. President and Gentlemen: When John Hancock, President of the Continental Congress, signed his name first to the Declaration of Independence, in 1776, it is said that he wrote his signature in characters so large and so loud that the cry for liberty, which they represented, was heard around the world.

It may be said with equal truth and propriety that when Marion Sims fell so suddenly into the arms of death, the shock was felt wherever women suffer or surgery is practised.

Hancock, by his eloquence, wisdom and example, stimulated not only his associates but posterity to patriotism, learning and noble deeds. Sims by his brilliant genius, patient industry, wonderful skill and dexterity has saved the lives of many, and made the burden of life less irksome to countless numbers of this and future generations. Who shall say that the former is more deserving in fame than the latter?

Poets sing that he who dries a tear or saves a pang to suffering woman has rendered a service more praiseworthy, than to have fought a battle or captured a ship.

Those who have advocated great principles or instilled pure and noble thoughts into the minds of a people; those who by their valor have conquered the enemy of the State; he who by his conquests has added to the territorial possessions of his sovereign; statesmen who have originated, and by their zeal and ability carried through the Congress or the Parliament measures for the relief of the oppressed—all these have received just praises and adulation during their life, and monuments have been erected to perpetuate their memories after they were dead. Equally, if not more, are those benefactors of their race who devise means for saving life instead of destroying it, who by his genius rids the world of a scourge or a plague, as well as he who destroys an army or takes a city.

Prominent among the benefactors of mankind would I see the honored name inscribed, whose useful deeds we have met together to recount, and whose virtues it gives us a melancholy pleasure to commemorate.

If the sad procession could speak to us to-night—which would have gladly and mournfully followed his mortal remains to their last resting-place—made up of those directly benefited by the skill of this great master in surgery himself, and by the much greater host of those indirectly owing their relief from pain and misery to him, there would have been no uncertain voice to proclaim that this beloved name should occupy a position among the highest and noblest upon the pillar of fame.

Honored, as few have been in our land, by the presidency of the American Medical Association, that great representative body of physicians, and with the same distinction by the American Gynæcological Society, elected also to membership in scores of medical and scientific societies, these are exhibitions of the



esteem in which he was held by his countrymen, and of the fact that they delighted to do him honor.

As his reputation increased, so great became his fame that no city, State or country could retain him within their narrow boundaries, and before his too sudden death had taken him from us forever, he had been the reluctant recipient of the most flattering evidences of the regard of the great and the noble in many countries in Europe. Kings and queens actually besought him to accept their orders and decorations. The order of Knight of the Legion of Honor was conferred upon him by the French Government, and he was subsequently decorated by the King of the Belgians, also by the Italian, Spanish and Portuguese Governments.

One of the most remarkable elements in his character, Dr. Emmett said to me only a year ago, was the cool and ready ability which he always exhibited in an emergency. His unequaled and wonderful quickness to appreciate how best to turn to good account some unlooked-for occurrence during the progress of a grave operation had been a constant surprise to him.

This was exemplified in his operation upon a French countess whose life had been despaired of by the best medical talent in Paris. Sims, believing she could be cured, operated—in his weakness and prostration—in the presence of many celebrated physicians, and when about to close the wound, after the skilful removal of the cause of the malady, she apparently expired under the combined effects of shock and anæsthesia, whereupon a bystander sarcastically remarked: "Yes; your operation is successful, but your patient is dead. *We* could have done as well as that."

Sims had staked everything upon this, his first prominent operation in France, and, stung to the quick by the sarcasm of this sceptical Parisian, he dropped his knife, and sprang upon the operating table, remarking, "No, she shall not die," seized her by the feet and swung her head downwards, until the anæmic brain, with the aid of gravity, became supplied with blood. Nervous power was generated to cause the heart to send a vascular supply to the lungs. The patient drew a long breath, and the mysterious machinery of life moved again slowly into action—and the countess lived. The operation proved to be a success, and Sims' reputation was won.

Hanging the head downwards, in cases of suspended animation from chloroform poisoning, was not entirely new or original with Sims, but his cool, quick and successful grasp of the situation was the culminating climax which won to him the hearts of the French people, ever fond of courage and dashing display when crowned by success.

It was not, however, by stage effects, parade of wonderful cures, or the industrious importunities of partial friends or grateful patients, that Sims' glorious and phenomenal reputation was made.

This was founded upon the everlasting rock of solid scientific attainments, and upon those rare elements combined in one man which go to make up, round out, and complete the character of the Christian gentleman. It is said of him that no woman ever distrusted him, while his exceptional purity of speech and life, together with the personal magnetism of his smile, his words, his manners, attracted many to him and held them chained with the silken cords of love, gratitude and esteem.

Gaillard Thomas says: "If all that Sims has done for gynæcology were suppressed we should find that we had retrograded at least a quarter of a century."

This coming from the most prominent, original and justly-celebrated gynæcologist in America, and scarcely second to any throughout the world, is praise indeed, and were it not a sad pleasure to his friends and professional admirers to enumerate his many achievements for science and humanity, and his many

estimable qualities of head and heart, it would be a sufficient eulogy, as it epitomizes whole discourses, and might constitute an appropriate epitaph to inscribe upon his monument.

I have left it to others to describe his operations and to speak of the era in gynæcology inaugurated by the invention of his speculum, and the use of silver wire sutures in vagino-plastic surgery.

It gives me a peculiar pleasure, however, to speak of this great man, who has brought such relief to suffering womankind, whose reputation is world-wide, who was courted by kings and princes, decorated by foreign Governments, elected to honorary membership in many European societies, and whose name is embalmed in the hearts and memories of thousands as a gynæcologist.

As a gynæcologist he began his career in Alabama, in 1836. In 1849 his fame in that State culminated in the perfection of his method of operating for the cure of vesico and recto-vaginal fistulæ. In 1853 he moved to New York, and in addition to the building up of an extensive and lucrative practice as a gynæcologist, he succeeded in establishing one of the largest and best-regulated hospitals in the world, devoted to the exclusive practice of gynæcology.

As a gynæcologist he visited Europe, and it was in this capacity that unparalleled honors were literally showered upon him, and it has ever been in the acquisition of his fame that he wrote, spoke and practised gynæcology.

The grand universal school of Medicine claims him with pride as one of her brightest and most particular stars, and is now everywhere engaged in her journals and societies in doing honor to his memory. The more particular division of Surgery claims him as one of her most skilful and renowned operators, and every professor of surgery has ere this spoken to his class of the glory of his career. But, Mr. President, though Medicine universal may claim him, though Surgery more especially may claim him, it is the specialty of Gynæcology which *owns* him, which cultivated and produced him, which he honored in his life and which *loves* to honor him in his death.

It is sad to think that his last years were too full of cares, occupation and ill health to permit him to finish the great literary work of his life, which would recount for the benefit of posterity the various steps by which he reached the elevated plane upon which he stood. He said to me in his parlor at the Arlington Hotel, during his recent visit to this city, in answer to my regrets that its publication had been so long delayed, with a sarcasm and pathos in his voice which I shall never forget: "My dear doctor, I shall never live to complete it. There are plenty of others to take up the work where I leave it, and I have more important things to do in the little of life remaining to me, than to write of what I have done in the past."

There is a sadness also in viewing the elevation of any man to a plane so high above his fellows that he has no equals of whom to take council, or for daily, friendly intercourse; but this sadness has its alleviation in the contemplation of our honored, loved and trusted friend, standing so high in the clouds upon the topmost round of the ladder of fame, that it was but a step for him *over* into the confines of that celestial country where the weary are at rest forever.

#### REMARKS BY DR. W. W. JOHNSTON.

The great apostle of hero worship has said that "Universal history . . . is at bottom the history of the great men who have worked here. . . . All things that we see standing accomplished in the world are properly the outer material result, the practical realization and embodiment of thoughts that dwelt in the great men sent into the world; the soul of the whole world's history, it may justly be considered, were the history of these." Is this doctrine true, or is it not nearer the truth to hold that great men do but utter the thoughts of

thousands *not great*, and "that all things that we see standing accomplished in the world are the practical realization and embodiment" of the strife and travail of the unfamed, often of the unknown? Events make men, and are not made by them. It took many years of discontent and liberty-craving in England to make a Cromwell. He came to the top as the ablest representative of the long-suffering spirit of rebellion against tyranny and intolerance. He did not make the revolution. The revolution made him. But none the less honor is due to those great names which mark the epochs of the world's history. That these great men did embody in themselves the power and intellect of thousands, gifted with intelligence and aiming at the same ends, is the highest tribute to their genius and fame. Their deeds, however, rank not as miraculous outbursts of genius, but take their place in the orderly procession of events which mark the evolution of man's growing dominion over ignorance and nature.

The knowledge of the diseases of women lay sleeping during centuries. The structure of society in Catholic Europe and among the Arabs, by the peculiar relations fixed between men and women, put a stop to all scientific and practical investigation. Even after all barriers were removed, the time was very long before a real gain was made. The time was ripe when Sims patiently began to work out problems which were essential to operative gynæcology. Even slavery had its uses in the pursuit of his ends. Who can tell how many more years the progress of the art might have been delayed, if the humble negro servitors had not brought their willing sufferings and patient endurance to aid in the furthering of Sims' purpose.

In looking at the after life of the successful surgeon, we are apt to overlook the struggles with many obstacles during the earlier years of his life. The soul of Sims must have been a supersensitive one. We know that beneath a quiet exterior there slumbered emotions which were the necessary accompaniment of his delicate cerebral organization. Such men do not go through life without many crosses. That tenderness which drew all men and women to him was the expression of an impressionable nerve tissue which reacted to the slightest touch of harshness as to a wound.

The life of Sims marked an epoch in medical history. He lived to see a new science born, to watch it grow into the perfection of exact beauty and proportion, and he died with dreams of great things yet to be done filling the chambers of his capacious mind.

After which Dr. J. M. Toner read a carefully-prepared biography of Dr. Sims, which appears in the first department of this number. The resolutions reported were unanimously adopted, and then this historical meeting in connection with Dr. Sims silently adjourned.

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## SANITARY DEPARTMENT.

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THE RECENT ADVANCES OF SANITARY SCIENCE—THE RELATIONS OF MICRO-ORGANISMS TO DISEASE. Abstract of Address by HENRY O. MARCY, M. D., of Boston, President of American Academy of Medicine, New York, October 9, 1883 (*Journal of the American Medical Association*).

Sanitation can hardly be called a science. Many of its most important factors are, at the best, but imperfectly understood. The sanitary laws instituted by Moses are based upon principles which can not be under-estimated or ignored, the Egyptians for centuries previous had understood some sanitary ques-

tions and their solution better than ourselves. The traveller to-day may see in the elegant courts of the old Pompeian houses the marble basins, with their leaden pipes and stop-cocks still seemingly ready to turn the treasured waters of the distant mountain into their old time-accustomed chambers alike to bath and fountain, and go again singing in joyous cadence, ministering to need and pleasure as they found their way through the once busy city to the bay below. Our modern systems of water carriage to remove sewage are but the adaptation of means to ends well recognized by the ancients, and it would to-day be difficult to find a better specimen of sewer or masonry than the Cloaca Maxima of old Rome. That age of Grecian prosperity and extraordinary intellectual activity, which gave to the world Pericles, Sophocles, Aristophanes, Pindar, Plato, Xenophon and Socrates, also furnished Hippocrates, the father of medicine. He it was who formulated the fundamental principles of sanitary science: "Pure air, pure water, and pure soil." The little island of Cos was his home, and here was located one of the most celebrated temples of the Asclepiadæ, or priest-physicians of the Greeks. If Hippocrates, living upon this pearl of the Ægean Archipelago, whose leafy groves were musical in the evenly-tempered balmy breezes which ever played in health-giving zephyrs, whose gentle rills were fed from springs gushing forth the distilled dews of heaven, whose verdant slopes, basking in the clear, warm sunlight, were kissed by the deep blue waves of the Mediterranean, the very place of ideal purity and loveliness, recognized the importance of such maxims, what should be their value to the multitudes crowded at the behest of commerce in localities selected without thought of sanitary surroundings?

The discussion of the problems of life, and the important factorage of ills thereto belonging, by the wise and thoughtful of the ages long ago, is not alone instructive, but has a fascination of its own. Whatever else may be said of Mohammedism as a code of morals and virtue, its cardinal principles of cleanliness and careful living deserve special recognition at the hands of science. The great plagues of the middle ages, and the desolations following the crusades which swept over Europe, were filth diseases of a preventable character. Although spurred into recognition by the bitter experiences of the passing generations, sanitary science is yet under only partial recognition of the laws, and a popular interest is scarcely aroused, even among our more intelligent classes of citizens.

The vital processes, in their sway over matter, hold the balancing between waste and repair. This hypothetical equilibrium is perhaps the best definition of health, and the safe removal of the waste, worn out material is one of the chief factors of sanitary science. This to the individual as ordinarily situated, might seem a question for easy solution. In the wide stretches of country surroundings, although there are many exceptions, this is generally true, but in the crowded conditions of city life there is no problem more pressing or complex. The law of decomposition is vital rather than chemical, and in the changes which ensue there are reproduced in the most marvelous abundance lower forms of microscopic vegetable life, which in their death-dealing danger are far more than the evolution of noxious gases. The relation between the house we occupy, its location and surroundings, its water supply and the best means of removal of potent waste, are as yet but imperfectly understood. The local causes in the production of disease are occupying in a greater degree at present than ever before the best scientists of the medical profession. Although many vital points are yet undetermined, great progress has been and is being made. It is sufficiently established that the water drunk, which is contaminated with the specific infection of cholera, typhoid fever and other diarrhoeal diseases, will at least in certain conditions of the system reproduce these diseases, and if these conditions are widespread, an epidemic will ensue. A similar law holds good with reference to

malarial or intermittent fever, although it is very probable the sources of contamination are not confined to the water supply alone. Heat, moisture, and the resulting decomposition are the seeming gross factors, but it is quite certain that minute living organisms introduced into the system are the potent factors in the production of these diseases.

The condition which this age of steam brings with its modern miracle of civilization, massing the population in great centres, gives new sanitary problems of a very difficult and complex character.

Surrounded by media from which there is even momentarily no escape, and which we must ever breathe, atmospheric impurities must be considered as of the highest importance. The air has no absolutely fixed normal composition; however, its two essential elements, oxygen and nitrogen, under ordinary circumstances, are so nearly invariable, they may be regarded as stable factors. Although, in a simple mechanical mixture, the air is very rarely free from carbonic acid and water, yet carbonic acid, so far as known, is a harmless, but superfluous agent to the animal economy, while, on the contrary, to the vegetable world it is food of the most important character. Some plants go through their entire period of evolution, dependent only upon this element and water. The mechanical admixture of water in the form of vapor is a constantly varying factor, dependent upon location, climate, temperature, etc., and, although rarely entirely absent, is of itself an element comparatively unimportant, but, combined with other factors, it makes possible the development of lower orders of the vegetable organisms, to which we are now warranted in ascribing some of the most dangerous and widespread diseases of the entire animal kingdom. In its indirect bearings upon climatology, influence upon heat, etc., atmospheric moisture is of the first importance.

In the analysis of air, ozone, from its admitted powers, especially in its bearing upon climate and health, should be carefully considered. It is an allotropic form of oxygen which has attained new properties of an intensely active character, supposed to have been chiefly produced by the action of electricity. Its molecular weight is 48, oxygen 32, and its density is about one and one-half times greater than oxygen. According to Houzeau, the maximum quantity of ozone in the air never exceeds 1-700,000 part of its bulk, and is often entirely wanting. More ozone is found during the night than the day; in winter than in summer; upon high rather than low lands; in country than in town; and most of all, after a severe thunder-storm.

Ozone owes its great value as a disinfecting agent to its exceedingly powerful oxidizing qualities. The compounds of ammonia, phosphorus and sulphur are acted upon with great rapidity, and the odors resulting from animal decomposition are removed instantly. It is probably destructive to all the minute vegetable organisms when in active development, but its effect in destroying the vitality of the spores of plants has not yet been determined.

Products of decomposition from cesspools, the organic exhalations from respiration, the lessening of oxygen from the combustion which is going on in brilliantly-lighted rooms, all these are dangerously infective and devitalizing elements, which demand a system of ventilation usually ignored in modern house construction.

From the address upon State Medicine before the American Medical Association at St. Paul, 1882, by Dr. Gihon, Medical Director, U.S.N., I quote, all too briefly:

“So long, however, as society in its highest development of rank and culture ignorantly jostles and wedges itself in contracted parlors and drawing-rooms, already defiled by blazing gas-jets and defective furnaces, where hundreds of lavishly-dressed human machines befoul the air and poison one another with the noxious gases and their own effete animal products in deadlier quantity than the

ragged rabble which herd in the open street, and call this pleasure; so long as godly people drowse and yawn in badly-ventilated churches, surcharging their brains and impairing their minds with blood not half ærated, and ungodly ones exhaust their whole reserve force to resist the insanitary influence of the no less badly-ventilated theatre and exhibition hall, and call the one pious worship and the other rational amusement; so long as men toil to amass riches and then build residences palatial, or sham palatial, and in the name of luxury and æstheticism flood them with artificial light and heat to consume the oxygen which prince and beggar must breathe, and admit the invisible filth by the sumptuously decorated closet and bath-room, by which they think to exclude the vile necessities of humanity which prince and beggar alike cannot escape, and call this comfort and refinement; so long as our children are sent to overcrowded and unwholesome schools, where their eyes are bleared, their hearing dulled, their plastic bodies distorted and their brains fuddled, and call this education; so long as men and women violate daily in themselves and in their children the simplest precepts of hygiene, parents countenancing half-dressed daughters wearing out their strength in unwholesome ball-rooms, seeking their slumber that cannot refresh only when dawn appears; sons launched upon the world to encounter physical wreck in a thousand channels where no beacon warns of danger; old men, senators, judges, divines, perchance learned doctors, uncomplainingly breathing the foul air of public conveyances and apartments in which every door and window have been carefully closed and ventilators carelessly ignored; streets reeking with filth which decrepit laborers play the farce of sweeping in broad daylight; what can State Medicine hope to accomplish in legislative chambers and halls of Congress which are themselves even evidences of sanitary ignorance, sanitary neglect, and sanitary indifference?"

The foreign ingredients of the atmosphere are very various; as dust they are carried great distances by the wind and deposited often hundreds of miles from their source. African organisms have been found in the air of Berlin. It is often difficult to obtain air free from the pulverulent débris of vegetation, and both vegetable and animal organisms abound. From the vegetable kingdom come pollen, vegetable hairs, fibres, scales, cells, seed capsules, spores of fungi and various forms of bacterial growths in marvelous abundance. In the air of living rooms we may find portions of food, animal and vegetable fibres, pus globules, fatty crystals, scaly epithelium, and a number of the micro-organisms.

Dr. Sternberg, in his report to the National Board of Health, says: "The fact, observed by myself, that during the summer months the mud in the gutters of New Orleans possesses an extraordinary degree of virulence, shows that pathogenic varieties of bacteria are not alone bred in the bodies of living animals. The more I study this subject the more probable it seems to me that in this direction lies the explanation of many problems which have puzzled epidemiologists, and that the sanitarians are right in fighting against filth as a prime factor in the production of epidemics; a factor of which the rôle is easily understood, if this view is correct. The presence of septic organisms, possessing different degrees of virulence, depending upon the abundance and kind of pabulum furnished them, and upon meteorological conditions more or less favorable, produces, in my opinion, the *epidemic constitution of the atmosphere*, which wise men were wont to speak of a few years ago as a cloak for ignorance. It must be remembered that the gutter mud of to-day, with its deadly septic organisms, is the dust of to-morrow, which, in respiration, is deposited upon the mucous membrane of the respiratory passages of those who breathe the air loaded with it."\*

Owing to the multiplicity of agents and causes rendering air impure, its analysis has, as a rule, been very uncertain and unsatisfactory. The term

\* Special Report to National Board of Health, April 30, 1881.

albuminoid ammonia, much used in the analysis of air as well as of water, has usually represented a whole series of unknown factors.

It was first noticed by Gay Lussac that all the nitrogen of organic matter, when heated with caustic hydrates, appeared as ammonia. Albuminoid compounds, when disorganized by the growth of the lower forms of organisms, set free ammonia, and the quantity of the free ammonia may, in a general way, serve as a standard to indicate the amount of decomposition which *has* taken place.

The term albuminoid ammonia, on the contrary, stands for the quantity of nitrogenous material in air or water which *may* serve as food for the growth of these infinitesimal organisms. This as yet undecomposed organic matter is not by any means in itself necessarily hurtful, although always objectionable. Combined with moisture at ordinary temperatures, it furnishes the condition for bacterial growth, and may prove sufficient for the development and spread of an epidemic of some one of the class of contagious diseases. We can have no chemical test for discriminating between hurtful and harmless organic matter, since the poisonous infection is *vital*, and where found must ever be looked upon with suspicion.

A proper discussion of the impurities in water would far exceed the limits of this entire paper. Chemically pure drinking water is neither necessary nor wholesome. Soaking into the earth certain mineral constituents must be present in varying quantity. These have long been recognized and may be easily determined. In all natural waters there is more or less organic matter in solution. This is reduced to the minimum in the supply from springs and deep wells properly protected. Organic material may not be harmful, dependent upon its character; dissolved vegetable material may deeply color the water, or the low form of algæ give it a very disagreeable taste without being especially harmful; on the contrary, clear, sparkling, tasteless water may contain impurities in the highest degree dangerous. Water containing albuminoids in solution, if allowed to become standing, is sure to undergo deleterious changes, from its infection by the ever-present atmospheric germs which utilize these products as food and reproduce in numbers utterly beyond conception. It is owing to such infection that the water draining from swamps and marshes, especially in hot climates, has ever been a prolific source of intestinal diseases.

As in the discussion of atmospheric impurities, we found the ever-present moisture an important factor, so in the treating of the water supply, soil pollution must be necessarily therewith taken into consideration. In this relation no question is more important than the power of the soil to purify water by filtration and the retention therein of injurious products. The albuminoid compounds may here be utilized as food for the higher order of plants, and thus be extracted from aqueous solution. Under the influence of sunlight oxidation destroys many of the lower growths, and air and water both thus become purified. It has long been recognized that certain soils in time lose their ability to filter out the impurities from polluted waters. Many cases of disease and even epidemics have been traced directly to the use of water containing sewage that had passed a greater or less distance through the soil. It is apparent that this danger has been greatly under-estimated by all classes. The specific contamination of the ground water, and thereby of the supply for household use, is the more common and wider spread source of some of our most dangerous diseases, the example of which best known is typhoid fever. It is also an established fact that the air which everywhere permeates all soils to the ground water moves in consonance with every barometric change of the outer atmosphere; these air currents, also modified by heat, are of importance from a sanitary standpoint. Every vault, every cesspool, is a source of pollution, and these sub-soil air currents are drawn into our cellars from all direc-

tions when they are used, as is the custom in most of our northern cities, as the source from which the heat in winter is distributed through the house.

The recognition of this danger caused the National Board of Health to institute a very elaborate series of investigations in order to determine the extent to which different soils are able to filter the injurious properties out of the air passing through them. The most interesting report upon "the relation of soils to health," by Profs. Smith and Pumpelly, can here only be referred to. Their conclusions show the utter worthlessness of sand as a filter for germinal matter. Our government in no wiser way could aid in the general well-being of her citizens than by the continuation of such investigations.

"The facts here brought out seem to us of importance, considered with reference to the sources of supply of our drinking waters; the relative location of wells, cesspools, etc., in our towns; and also with reference to the methods of removal of excreta, especially during the prevalence of an infectious disease, the infectious materials of which may be communicated through water. A good bed of sand has commonly been regarded as one of the most efficacious forms of filters, amply protecting our well water against all contamination, even though the wells be sunk at no remote distance from sewers, cesspools, cemeteries, etc. But we see that sand utterly fails to remove germs of putrefaction, such as are normally found in the air and in water from liquids, while its power of absorbing dissolved matter, organic or inorganic, must also be seriously questioned."\*

The subject of germ transmission through the soils demands on the part of sanitarians the most searching investigation, not only on account of the possibility of contamination of our drinking waters through infiltration of germs, but also because the air, especially in our dwellings, may become infected if the soils in their natural condition possess no power of retaining germs or their adult organisms. For whenever in an infected soil the ground water from any cause rises to the surface, germs may be carried with it, and upon drying be taken up by the atmosphere.

The importance of a supply of pure drinking water cannot be overestimated, and its pollution is in a very large degree due to germ contamination. This is no exception even in sparsely settled-country districts. In New England, almost entirely exempt from malaria, the danger from specific contamination of the drinking water is shown in the marked increase of typhoid fever. In Massachusetts alone there occurred from 1840 to 1880 390,000 cases of typhoid fever and 40,000 deaths.

In the military service during the late bloody conflict between the States, zymotic diseases caused a larger number of deaths than resulted from all the battles of the entire war. We quote from the report of the Surgeon-General: "The entire number killed in battle and died as the result of wounds was 93,443; died from disease, 186,216; died from zymotic diseases alone, 108,666." If to these hecatombs of victims, sacrificed in the vigor of early manhood, we add the suffering represented by over 1,700,000 reported cases of diarrhoea and dysentery, and 1,100,000 cases of malarial fever, every village and hamlet of our broad domain still having its representatives of wrecked humanity from these causes, we gain some idea of the dangers resulting from insanitary conditions, although our armies were in service in a mild climate, and the best clothed, fed and housed soldiery the world has ever seen.

The number of deaths in the United States in 1880, from diphtheria alone, was 38,398, a proportion of 51.33 per 1,000. From typhoid fever there occurred 22,905 deaths, a proportion of 31.21 per 1,000.

These terrible scourges, like consumption, are the messengers of death which make their daily visitations, and to which people have become so accustomed as to regard their ravages as the inevitable, or, as the clergy have been wont to

\* Supplement No. 13, National Board of Health Bulletin p. 18.



express it, "the hand of Divine Providence laid heavily upon us." The medical profession talk learnedly of the wise means adapted to the cure. Different schools of pharmacists have their vaunted remedies, but the sad, humiliating lesson of the mortality tables teaches that these invisible monsters are stalking broadcast over the land, seizing prince and beggar alike in their remorseless grasp.

The laborious researches of our distinguished friend, Dr. Henry I. Bowditch, in establishing the relation of soil moisture to consumption, builded for himself a monument more grand and enduring than granite or bronze. The ineffable something, of the existence of which he was equally sure, remained for younger eyes to discover, and the patient, painstaking labors of a well-trained German student to demonstrate, the specific bacillus tuberculosis.

It is very probable no publication of modern times has awakened so much discussion or caused the undertaking of so great an amount of study and investigation.

The fundamental basis of all sanitary law, and I may say also of the treatment of disease, lies in the acquisition of such causative knowledge. The application of sanitary law to city life must demand an atmosphere reasonably free from the defilement of organic waste. This necessitates a system of sewerage which shall continue from the house, in a steady unbroken current, to its discharge at a safe distance from habitation. This current should be of sufficient rapidity to prevent sedimentation, and deliver the house products before time sufficient for putrefaction, even in summer, has elapsed. This can never happen in the systems now in use in those cities situated upon the seashore, since here the sewers are practically tide-locked a large fraction of the day, and a cessation of current with sewerage deposit must ensue, while a backward pressure is necessarily produced upon the sewer air, which, loaded with organic products, must escape into the house through any one of the water traps now in use.

Sewer-gas poisoning, which means air changed not so much in its chemical constituents as defiled by organic impurities, is thus by no means in our best-constructed houses a hypothetical danger, here often the greater, for the costly luxuries of water closets and basins are each a standing menace, and are to be regarded with suspicion. Boston, which has and yet continues to drain into its back bay and harbor its sewage by more than fifty outlets, is upon the eve of inaugurating its new system at an expense of nearly \$5,000,000, by which the sewage is to be pumped into a storage reservoir situated upon Moon Island, and discharged into the outgoing tide, and thus protect the harbor from defilement by sewer drainage.

The wise political economist and world-renowned historian, Mr. George Bancroft, in discussing the future of civilization, once said to me: "I look upon New York City as the future commercial metropolis of the world, a great centre of ten or fifteen millions of inhabitants." This prophecy of years ago has gone on towards steady fulfillment, until, like London, she exacts tribute from the entire world. Situated upon a narrow neck of land between a mighty river and a deep bay, it would seem that good soil drainage would be most easily secured; and yet her sanitary authorities state that the imperfect, incomplete and broken sewers have caused the soil of whole districts to become so charged with sewage that the saturation point is reached. Nearly four millions of people pour their waste into the river and harbor, as is most convenient, while miles of her shores are fringed with wooden wharfs built upon piles, not alone themselves undergoing decay, but a fertile source of detention of putrefying material. The New York physician will tell you that, no matter what disease he has under treatment, it is with the added factor of malaria from such defilement. Rich and poor must alike suffer from such danger, and if the prophecy of America's

distinguished scholar is to be fulfilled, New York must take her sewage out of the harbor, and rival Liverpool with docks of solid granite for the merchandise of the globe.

The water supply must ever be pure and ample. The extraordinary expenditure necessitated by most cities has made water a costly product. Rivers and lakes in sufficient proximity for such use are liable to defilement from suburban towns and manufactories, and only by the greatest vigilance can pollution be prevented. Boston has freely expended her millions upon a water supply confessedly inadequate in amount, and of a character which is a constantly recurring source of complaint and danger. Much of her water supply is retained in artificial shallow storage basins, from which the surface soil was never removed, and whose water-shed comprises a very considerable population; and Natick, with its 8,000 people, still drains its waste into Lake Cochituate, the original source selected for the city supply.

The Board of Health returns for Boston, August, 1883, out of a total of 521, gives from zymotic diseases alone 194 deaths, while 135 cases of typhoid fever were reported.

For September, a total mortality of 765, there were 253 deaths from zymotic diseases, and 215 cases of typhoid fever reported.

With astonished gaze the traveler views the great arches spanning and crossing the Campagna, which once bore to old Rome the pure waters of the distant Albian mountains. The last generation of scant population, with singular energy and foresight, at the behest of commerce, wedded by a waterway, more than three hundred miles in length, the great lakes with the Hudson River. The twentieth century will exhibit yet greater marvels for the securing of pure water. The project is already under discussion to supply the great metropolis from no nearer source than Lake George, with the thought of protecting its water-shed from further pollution, and carrying its pure, sparkling water to the thirsty city at an estimated expense of no less than two hundred millions of dollars.

The danger from the dead must not be forgotten. As we invite our friends to sympathize in our sorrow, let it not be to their peril. Revive, if need be, the custom of Egyptian preservation, or reinaugurate the use of the Roman funeral urn, but do not sow the seeds of an epidemic of the ever-prevalent contagious diseases by our present display of decomposing remains, adorned as if for a reception. Let the genius of some sanitarian devise a casket, at once hermetically sealed, rather than do violence to time-honored custom or shock the deepest and most sacred feeling of broken hearts by urging cremation. The public health act of Great Britain makes the holding of a "wake" over the body of one dying from contagious diseases subject to a fine of five pounds. Let American authorities equally protect from similar dangers.

We turn reluctantly from the consideration of questions having so great and vital an interest to the medical profession, and of primary importance to the entire animal kingdom. If Rip Van Winkle experiences be granted to us in the twentieth century, with little aid of the prophetic power, we may forecast some of the advances then made known to us of our science. In the light of past history, with its fashions and foibles of the *medicamenta*, few would presume upon the mission of its pellets and powders.

Surgery and sanitary science are, however, based upon entirely different factors of our knowledge, and must remain the great cornerstones of a divine art, as wide-reaching as humanity. Upon these shall be builded the grand Æsculapian temple of the future, where will be taught a science foreshadowed in the deeds of the great Galilean Master.

The citizen must not be lost in the physician. A Republican Government demands service of all. As turned from the motley crowd in Castle Garden I

shuddered at the thought that these men were so soon to be my peers in our government, but the bright-eyed children, hiding in the scanty skirt of the mother, looked hopefully up, as if to say, "Welcome us in our escape from the oppression and overcrowding of the centuries." Then came the vision of our broad domain scattered all over with school-houses, academies and colleges. Rosy-hued with health, in youthful vigor, our women in tens of thousands have devoted their best years to the training of the young. Four hundred American colleges and universities with open doors invite to a higher education. Universal knowledge is the Republic's only safety, and further needs have only to be made known to be liberally met by the generosity of the American people. The necessity for research and pure science are recognized as never before, and may the day soon come when our youth will no longer require for their best development and higher education, European training.

Be it our bounden duty as physicians to disseminate to the masses proper instruction in the cardinal virtues of right living, and to demand from our government wise sanitary laws, both State and national, in the enforcement of which every house shall be builded and maintained as sanitarily safe as architecturally; rich and poor alike abundantly supplied with pure air and water, and have their habitation upon an uncontaminated soil.

DEATH-RATE IN FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending January 8, that the death-rate was recently equal to 21.9 per 1,000 in Bombay, and 36.1 in Madras. Small-pox caused 34 deaths in Madras, where "fever" fatality was also considerably greater than in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-two of the largest European cities was equal to 24.3 of their aggregate population; this rate was 2.7 above the mean rate last week in the twenty-eight large English towns. The rate in St. Petersburg did not exceed 22.9, showing a further decline from the rates in recent weeks, although the 408 deaths included 28 fatal cases of diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was only 19.3, the highest rate being 25.2 in Stockholm, where the 88 deaths included 8 from diphtheria and croup, and 6 from scarlet fever. In Paris, the rate was 22.6, and the deaths included 43 from diphtheria and croup, and 32 from typhoid fever. The 183 deaths in Brussels, of which 8 were fatal cases of small-pox, were equal to a rate of 22.8. In Geneva, the 31 deaths gave a rate of 23.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rates ranged from 18.8 in the Hague to 27.0 in Amsterdam, the mean rate in the three towns being 25.4; in Amsterdam, 26 deaths were referred to croup, and 12 to measles. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.8, and ranged from 21.4 and 21.9 in Hamburg and Buda-Pesth, to 30.1 in Munich and 32.1 in Prague. Small-pox caused 24 deaths in Prague, and diphtheria 80 in Berlin and 26 in Dresden; measles showed fatal prevalence in Hamburg, Vienna, and Munich. The rate was equal to 23.3 in Rome, 24.2 in Turin, and 28.2 in Venice, the mean in these three Italian cities being 24.6; 11 deaths were referred to malarial fever in Rome, and 8 and 6 deaths respectively to measles and typhoid fever in Turin. The 132 deaths in Lisbon, including 5 fatal cases of diphtheria, were equal to a rate of 32.9. In four of the principal American cities, the mean death-rate was 20.9; the lowest rate was 17.9 in Brooklyn, and the highest (22.4) in New York. Typhoid fever caused 15 deaths in New York, 12 in Philadelphia, and 7 in Baltimore; diphtheria showed more or less fatal prevalence in each of these American cities.

DOCTORS' MISTAKES—THE WRONG CHART.—It has often been said in jest that

“doctors make mistakes the same as other people, but there are no living witnesses to the fact.” The members of the American Public Health Association know differently, and one of them will never forget it.

Among the papers read were two or three on malaria, and one of the readers, a prominent surgeon in the United States army, whose paper was a compendium of the reports of surgeons at the 212 military posts of the country, had prepared two charts or tables of statistics, the better to impress his facts upon the minds of the members. They showed the rainfall, mean temperature, number of cases, percentage of the population suffering from the disease annually, etc., one of them embracing a range of posts along the Atlantic seaboard from Maine to Florida; the other a range of posts from the headwaters of the Missouri to the Gulf. These were tacked up, one on either side of the stage, in full view of the audience, but not of the reader upon the stage.

The paper finished, and discussion of its contents being in order, a doctor from one of the Atlantic States took the floor and declaimed upon the healthfulness of his section of the country as compared with the West, especially Texas and Kansas, which he declared to be singularly subject to malaria, inasmuch as there is comparatively little marsh land in those States. He evidently knew what he was talking about, and, as he spoke fluently and forcibly, was listened to with marked attention.

An hour later, and while the subject was still under consideration, the army surgeon was seen to approach the chairman and whisper to him.

“Gentlemen,” said President Hunt, as he rose from the chair and addressed the audience, “that there may be no misapprehension of the facts, I desire to state that, through a mistake in the selection of the charts, the one upon my left shows the proportionate amount of malaria in the Atlantic States, while that upon my right shows the amount of Texas cattle fever in the Western States.

There was no roar of laughter, but many eyes twinkled with merriment, and one very red-faced doctor shortly afterwards meandered out into the corridor and disappeared.—*Detroit Free Press*.

THE claim is made for Cleveland, Ohio, that it shows a lower proportional death list for 1883 than any other city in the Union.

PHILADELPHIA'S DRINKING WATER.—It is now about fifteen months since the Schuylkill water was pronounced by physicians unfit to drink. During the whole of last winter, while the ice covered the stream, even the odor of it was so offensive that it produced sickness. On analysis one-sixth part was found to be sewage. Melted snow, ice, spring water, imported by private enterprise, mineral waters, wine, gin, and whiskey were substituted by housekeepers for the genuine article. After waiting for more than a year for some motion for their relief, the citizens are informed that “the Water Department is now going to inquire into the amount of refuse matter emptied into the Schuylkill.” The inspection has just begun at Pottsville, at the very top of the river, and the leisurely progress of the inspectors down to town will consume about a month, when “an official report will be made to Chief Engineer Ludlow, after which he (the Chief) expects that Councils will adopt some method to abate this great nuisance.—*Philadelphia Press*, Jan. 3.

PURIFICATION OF SEWAGE.—Experimental trials of the Andrews-Parker process for deodorizing and purifying the sewage of London have been in operation since last May. The 90,000,000 of gallons daily and nightly flows into subterranean reservoirs located beyond Beckton. By the action of water and repeated pumping before the last station is reached all the fecal matter in the sewage is reduced to a liquid having a grayish-black appearance and an extremely offen-

sive odor. The sewage, after having been drawn into a tank, is subjected to a powerful stream of water, under heavy pressure charged with ground clay, caustic soda, hydrochloric acid, and sulphate of iron. The mixture is then turned into large tanks, where it is allowed to remain until the action of the precipitates has thrown all the sediment to the bottom, when the liquid is drawn off into the Thames, it being a pure, colorless, and odorless water. The sediment is kiln dried and pulverized, and makes a fertilizer which chemical analysis has shown to contain a large proportion of ammonia and phosphates, and to be of much commercial value.

BOSTON'S SEWERAGE EXPERIMENT.—The public will follow with interest Boston's experiment of leading its sewage into deep tide water. This morning the pumps will be set in motion at Old Harbor Point, the final discharge being at Moon Island. The entire cost has been \$4,544,272, and the building of the sewerage is spoken of as "one of the greatest engineering feats of the age." It may seem a little hypercritical to express a regret on this inaugural day of great enterprise that Boston did not see fit to include in its plans all the possibilities in the case. London has taught the world that a nuisance can be turned into a profitable product available for agriculture. The market gardeners about the city eagerly take up all the sewage fertilizers turned out at the London works, and find them even better than what they buy in the market. At Pullman, the infant city of Illinois also, the revenue derived from the sale of the manipulated sewage is a good and fair interest upon the money invested in the works, to say nothing of the incalculable benefit to the community in the solution of a serious difficulty. A glance at the North Cambridge and Arlington meadows, and in fact the market gardening section of Middlesex County, ought to satisfy any one as to the extravagance of the policy which dumps the refuse of a great city into the sea. It is an open question, moreover, whether the "deep tide" will take and hold this sewage. Nantasket and the contiguous beaches may have occasion hereafter to thank Boston heartily for perfuming the surf and giving a new value to their bathing privileges. Of course, the present works need not be abandoned, even if they prove to be a nuisance. The pumping station can be turned into a fertilizing factory, but the roundabout way of getting at it will certainly be very expensive.—*Springfield Republican*, Jan. 1.

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EXPERIMENTS WITH THE SPUTA OF PHTHISICAL PATIENTS.—M. Vignal has been trying some experiments with the view of ascertaining whether the sputa of phthisical patients as found in the streets still contained bacilli. He collected a certain quantity of such sputa and submitted it to desiccation; he then moistened it and let it dry again at different times, so as to place it as much as possible in the condition in which it would be found in ordinary circumstances in a room. He discovered that the sputa thus treated contained bacilli as numerous and as well formed as if they had just been expectorated. He inoculated two guinea pigs with the matter; one of which died in a few days from obstruction in the bowels, and he could not in consequence come to any conclusion; but the second animal, though it increased in weight during the first few weeks subsequent to the injection, afterwards began to lose flesh and died in about three months. At the autopsy it was found that in all the organs there was a great number of tubercles which contained bacilli. M. Vignal concludes that sputa of phthisical patients, as found on the ground in the streets or in apartments, are far from being inoffensive, and might become agents of contagion to person predisposed, or in whom the bacilli would find a favorable soil for propagation.

## PHARMACY AND THERAPEUTICS.

CONVALLARIA MAJALIS (LILY OF THE VALLEY).—Dr. Edward Drummond, of Rome, writes to *The British Medical Journal* (see No. 1,194, November 17, 1883, p. 970) that he has lately met with an account of the use of this drug, in cardiac disease, as far back as the commencement of the seventeenth century, in an old Italian book of *Commentaries on the Materia Medica of Discorides*, by Dr. Pietro Andrea Matthioli, published in Venice in 1621, and Dr. Drummond gives the following interesting translation :

“The Germans use lily of the valley to strengthen the heart, the brain, and the spiritual parts, and also give it in palpitation, vertigo, epilepsy and apoplexy; also as a remedy for the bites and stings of poisonous animals; to quicken parturition, and for inflammation of the eyes. For this purpose they are wont to prepare the wine from the flowers at the time of the vintage, and then infuse them in old wine for forty days in the sun, and subsequently distill and re-distill (but not many times), along with lavender flowers, rosemary and other aromatics. They then preserve it as one of the most precious things to be found amongst medicines, and they call it “aqua aurea,” and preserve it, in vessels of gold and silver, against sudden attacks. They even believe that, given to persons actually *in articulo mortis* it is able to prolong life for several hours. In this, however, they are not unfrequently deceived, as I have myself witnessed.”

In the above translation it must not be taken for granted that the words “distill and re-distill” had their present meaning, for it is highly probable that they had not. Referring to Richardson and other authorities, it will be found that “to separate drop by drop,” was formerly taken in a different sense, and had no necessary relation to rising in vapor and being condensed, or even to heat in any form. By the quotations given in Richardson, its present signification from some former more literal one can easily be traced, and in this translation it should probably be read as “percolate and re-percolate” after the forty days’ maceration.

Hence, it is probable that convallaria has been continuously used in medicine for several hundred years, and that its action on the heart has been long known. Its more modern and rational use in medicine, however, does not date back, so far as the writer knows, further than a paper on the subject by Professor Germain Sée in the *Bull. Thérap.*, for July, 1883.

In connection with M. Hardy its physiological and therapeutic action were both investigated at length, and very important and definite results were reported. Its effects on the heart and arteries, although similar to those of digitalis, were not identical, and were not produced in the same way, while it was free from some of the inconveniences and disadvantages of digitalis. It was not cumulative and explosive as digitalis was reported to be. It did not interfere with digestion, but was perfectly well borne, the appetite rather increasing under its use, while the intestinal action was also improved. The diminution of the heart’s frequency, under normal conditions, amounts to 10 or 15 beats per minute. Irregularity, especially of nervous origin, is lessened. Sensations of pulsations in distal vessels—*e. g.*, in the head—are removed by it. At the same time the force of the cardiac action is increased. It has a powerful diuretic action, increasing the amount of urine to about three times its previous volume. (From *The Lancet*, August 26, 1882, p. 327.)

This paper attracted considerable attention, and was soon followed by others in France, Great Britain and this country. All agreed upon its potency as a cardiac agent. Some regarded it as an equal, and others as an inferior duplicate of digitalis. Some found it diuretic, others not at all so, while in a very

considerable number of the trials the results were negative until toxic doses were used. Long ago it had yielded to chemistry two glucoside principles of very different and somewhat antagonistic action, and these, convallarin and convallamarin were used separately, and the latter was alleged to be the cardiac agent, but with these also, discrepant results were obtained. In a year from the time of Prof. Sée's paper it seemed doubtful if convallaria was not a mere duplicate of digitalis, with the great disadvantage of being by no means so well studied or so well tried, yet stimulated into use by fashion and novelty, and by advertising.

If only a simple duplicate of digitalis, the already overloaded materia medica was much better without it. But if it differed materially in either quality or quantity of action, and was more free from collateral disturbance, the materia medica could not afford to lose the chances offered by it.

At about this period of its career the writer received a note from a very careful and close observer, saying that he considered it a valuable agent, which could not take the place of digitalis in his hands, but which had a place of its own to which digitalis had been applied, but to which it was less applicable, and asking the writer to make a preparation of convallaria for critical trial. This was in the early spring of 1883, and there was no part of the plant to be had in this market. From the character of the plant, and from various considerations developed by the uses of the extract from its various parts by M. Hardy and others, the writer concluded that the root, if taken at the proper time, would be by far the best portion of the plant for medicinal use, and that a well-made fluid extract of the root would be far the best representative of the drug—far better than the so-called active principles which, when divorced from each other—if not made by—chemistry, were found to yield such discordant results.

A florist was found who had some fine beds under cultivation, and when the roots had fairly sprouted they were taken from the ground, cleaned and dried by a gentle radiant heat. In drying they lost just about 75 per cent. of their weight, this loss not varying more than 1 to 2 per cent. in four separate parcels. The dried root and sprouts were then ground so as to pass through a sieve of 20 meshes, and were made into a fluid extract which represented the dried root minim for grain.

As a rule, cultivated plants are not as active, medicinally, as wild ones, but this was the best that could be done. The menstruum used for exhausting the root at first proved not to be a good one, and yet this fluid extract, in the hands of several good observers, proved moderately effective, and some discrepancies in the published statements were shown to be probably due to the use of preparations of different makers, or of different materials.

Specimens of this fluid extract were sent to several good observers, and in course of a few months results were obtained which, although not fully sustaining the character of the drug, were yet sufficient to warrant a more extended usage. By this time a parcel of foreign wild flowers and flower stalk had arrived. These were made into fluid extract with a different and better menstruum—namely, the diluted alcohol of the U. S. P. of 1880. It was, however, pretty plain from the sensible properties that this was not so active nor so good a preparation as that from the root, and therefore that the root collected at sprouting should be preferred. A very few therapeutic trials seemed to confirm this opinion, and by this time some foreign root arrived, was made up and distributed, and the supply of this has now been kept up for several months to all who apply for it, thus gradually extending the number of those who were using this preparation, and adding them to the much larger number of those who were using the preparations of other makers, and who had used these long before this writer took up the subject.

Up to this time several competent and careful observers, free from the

prejudice of novelty, and from the still more dangerous prejudice of basing general conclusions upon too few cases—have reported their experience in a guarded way. This experience is still discrepant, and therefore difficult to state, so that perhaps all that can be safely said is that the general kind and direction of the results show that convallaria is worthy of a more extended use before it can be either fully accepted or discarded. It may be pretty definitely said that it is not a simple duplicate of digitalis, nor is it adapted to supersede that important agent in any large number of cases. Yet its use may serve to differentiate or discriminate between cases which have hitherto been classed together and all treated by digitalis, because there was no other agent that was applicable to any of the class.

If the uncertain indications from the use of convallaria thus far be not mistaken, the best that can be hoped from it is that it may materially aid physicians in splitting up the digitalis class into groups, some of which may be better managed by convallaria. It is also among the possibilities, if not among the probabilities, that it may prove either or both a substitute and adjunct to digitalis. There are many conditions in which digitalis fulfills all the indications required of it, but in which it cannot be continued in sufficient doses to maintain the good effects without disturbing the stomach and thus interfering with nutrition. In such, or in some of such cases at least, it may serve as a substitute or alternate. In other conditions which seem to indicate the effects of digitalis, but in which that agent does no good, or cannot be tolerated, convallaria gives a chance of relief where there may have been less chance without it.

Two or three years of careful observation, in good hands, extended over large numbers of cases, without prejudice, and with earnest investigation, will be absolutely necessary to establish the true and lasting character of convallaria, and it is this consideration which induces the writer to add his supply of a well-made fluid extract from good material to those of other makers who long preceded him in supplying it.

The dose of convallaria is, of course, the quantity which will give the special or physiological effect, and this will be different in different cases. But the dose to begin with, and that which will be effective in some cases, is about 24 grains in the twenty-four hours. And as the fluid extract represents the drug minim for grain, the dose of that will be as many minims—say 6 minims every four hours, or 8 minims three times a day—the size or the number of the doses to be increased until some effect is obtained.

The fluid extract is miscible with water, and though it does not make a clear solution, the precipitate which settles out is probably, but not certainly, inert. A good way to administer it is to put a measured quantity in a wineglass and add as many teaspoonfuls of water as may make up the number of doses required when given from the same teaspoon. For example, a fluid drachm is measured into a wineglass, and seven teaspoonfuls of water, or wine, or diluted alcohol are added and the mixture well stirred. Then using the same teaspoon, and stirring well at each dose, if water be the diluent, it is given in teaspoonful doses, which will be nearly eight minims each, further diluted if desired at the time of taking it.

If the drug is to have a fair chance, there can be very little doubt that a well-made fluid extract of the root collected at the proper season is the best form in which to use it. In all drugs, the active principles of which are neither alkalis nor acids, but are of that indefinite class called glucosides for want of a better generic name, it is pretty certain that these glucosides do not fully represent the drugs—nor even well represent them. And when two or more glucosides are obtained from the same drug, the doubt is much strengthened. No one knows—be he ever so good a chemist—where the molecules of complex



organic substances will split until he tries them, and therefore what he gets is often empirical, and may be the result of his chemical process, so that a different process may give different results. For example, Walz, in 1858, obtained from convallaria two glucosides which he named "convallarin" and "convallamarin." Dilute acids again split both of these into other bodies by subtracting a molecule of sugar, and one of the resulting bodies, minus half a molecule more of sugar, leaves the formula of the other original glucoside. Hence the inference that neither convallarin nor convallamarin exists in the plant, but that they are the result of splitting-up of more complex molecules by chemical means. No one has ever proved that either of them pre-existed in the plant, while the physiological action of the plant is not represented by the action of the two glucosides as given.—*Squibb's Ephemeris, Jan., '84.*

PAIN KILLERS.—*New Idea* gives the following as the composition of two of the much-advertised "pain killers:"

1. Richter's Pain Killer.—From 100 parts of capsicum make 600 parts of tincture; add a solution of 22 parts of soap in 100 of water; add:

Water of ammonia .....	300 parts.
Camphor .....	30 "
Oil of rosemary .....	10 "
Oil of lavender .....	10 "
Oil of thyme .....	10 "
Oil of cloves .....	10 "
Oil of cinnamon .....	1½ "
Sugar coloring .....	q. s.

Mix and filter.

2. Perry Davis' Pain Killer:

Myrrh .....	2¼ lbs.
Capsicum .....	10 oz.
Opium .....	8 "
Benzoin .....	6 "
Guaiac .....	3 "
Camphor .....	10 "
Alcohol .....	5 gals.

—*New Remedies.*

KORONIKO.—Dr. J. Jardine, writing from Kiukiang, in the "Chinese Imperial Maritime Customs Medical Reports," says that dysentery, acute and chronic, was very prevalent in that community during the autumn of 1880. Acute dysentery had generally become sub-acute or chronic before the patients applied at the hospitals, so that the chronic form had generally to be dealt with. "As every one knows, these are the difficult cases to influence speedily by drugs, and with the Chinese a change of air or sea voyage is beside the question. In these cases I was induced to try *koroniko*, from the *Veronica parviflora*, which is largely used in New Zealand as a remedy in dysentery and diarrhoea, and some of the results exceeded my most sanguine expectations. Many who received the drug did not return to report themselves; but I have notes of three cases of chronic dysentery, varying in duration from six weeks to four years, and voiding from twenty to thirty motions containing blood and mucus daily. Fifteen doses of tincture of *koroniko* reduced them to one-half, other fifteen doses reduced them to three or four daily, and a third like quantity effected a complete cure. Judging from the few cases I have been able to follow, I augur a brilliant future for this remedy in the chronic forms of the disease."—*Practitioner, Quarterly Therap. Rev. July, 1883.*

COFFEE AND TEA.—Perhaps the most brilliant address which has yet been delivered at the Parkes Museum since the evening lectures have been inaugurated was that given by Dr. G. V. Poore, on December 6th. Sir Henry Thompson occupied the chair, and amongst the audience were to be seen Dr. Russell Reynolds, Mr. Berkeley Hill, Professor Corfield, and other distinguished medical men. The subject chosen by the lecturer was “Coffee and Tea.” After stating his belief that stimulants, both alcoholic and alkaloidal, had their uses, and that we ought to be very sure of our ground before we attempt to override appetite by dogma—as the Mahommedans had done—Dr. Poore proceeded to contrast “Coffee with Tea.” The cup of coffee, provided it were genuine, contained more alkaloidal stimulant than the cup of tea, and owing to the absence of tannin the action of coffee was more rapid than that of tea. The specific gravity of a cup of tea was about 1,003, that of strong coffee 1,009, and of café-au-lait, sweetened, 1,035. Tea was more of a pure beverage than coffee, and hence it was possible to use it as a mere luxury, for it required scarcely any digestive effort, did not “cloy” the palate. The danger of excessive tea-drinking lay mainly in the large amount of astringent matter. This was a most potent cause of dyspepsia amongst women of the sempstress class, who frequently consumed tea which had been boiled. When the system stood in need of a stimulant there was nothing equal to a cup of strong coffee; and if it were desired to wean the drunkard from his spirits a real stimulant must be supplied, and not the sickly, bitter, unwholesome stuff which was called “coffee” in this country. In order to make good coffee the berry must be fresh roasted and ground. There was no difficulty whatever in roasting coffee, and this ought to be part of the daily routine of every well-regulated household. It was important to use enough coffee; one and a half to two ounces of coffee to a pint of water made a first-rate beverage. Elaborate coffee machines for grinding were by no means necessary. If the coffee required for breakfast were put into a common earthenware jug overnight and cold water poured upon it, it might be heated to the boiling point in the morning by being allowed to stand in a saucepan of water over the fire. Violent ebullition was thus avoided, and the aroma was preserved. Chicory and other allied bodies are in no way substitutes for coffee, for they possess no stimulant properties. Out of ninety samples of ground coffee purchased in London shops only five were found to be genuine. This adulteration had been pointed out by *The Lancet* Special Analytical Commission thirteen years ago. Coffee “mixtures” made an infusion of high specific gravity, and tended to derange the stomach. A well-sustained discussion followed, in which heads of well-known city firms took part. The meeting concluded with votes of thanks to the lecturer and to Sir Henry Thompson.

DISTILLED WATER FOR EYE LOTIONS.—In the *London Practitioner*, Dr. Paul M. Chapman takes the ground that distilled water is not, in all cases, the best vehicle for eye lotions: He says: “I have tried the experiment on myself and on many of my friends, and the answer is always the same, viz., that the introduction of distilled water into the eye is attended with much discomfort and smarting, while with normal saline there is no noticeable effect whatever. . . . The practical deduction is this, which I have also verified, that the addition of two grains and a half of chloride of sodium to the ounce of distilled water renders any lotion intended to be of a soothing character much more beneficial.”

YELLOW OXIDE OF MERCURY IN OPHTHALMIA.—Dr. Jonathan Hutchinson says, since he has come to appreciate the value of yellow oxide-of-mercury ointment in the treatment of chronic inflammations of the eye, he has been able to abandon almost entirely the use of blisters, setons, and like painful measures.—*British Medical Journal*.

**SOLUBILITY OF URIC ACID.**—An accumulation of uric acid in any part of the body brings with it serious results, among which may be mentioned gout, stone, gravel, etc.

The usual method of removing such deposits consists of the free use of alkaline and mineral waters.

Jahn tested the solvent power of a series of salts in solutions of 1 part to 200 water. He found that one part of lithium carbonate would dissolve 3.51 parts of uric acid. Next in value to this are sodium bicarbonate (baking soda), sodium mon carbonate (sal soda), and borax, which dissolve 1.25, 0.98, and 0.83 part of uric acid respectively. The benzoate of lithium and borocitrate of magnesium have very slight solvent powers; sodium and chloride and sulphate and lithium chloride had no effect upon it.

Experiments were also made with natural mineral waters (European), with the following results:

200 c. c. of Vichy (Grand Grille) dissolved.....	0.765	gram.
“ Biliner sauerbrunnen.....	0.587	“
“ Carlsbad sprudel.....	0.546	“
“ Ems krahnen.....	0.515	“
“ Marienbad (kreuzbrunn).....	0.471	“
“ Wiesbaden (kochbrunn).....	0.243	“
“ Distilled water, dissolved.....	0.0214	“

These experiments prove that the carbonates alone, both of the alkalies and alkaline earths, increase the solvent powers of mineral waters over uric acid. Also that when sufficiently diluted their solvent power is directly proportional to their percentage of these salts.—*Arch. Pharm.*, xxxi., 511.

**“ REX MAGNUS ” AND “ VENETIAN RED ” AS FOOD PRESERVATIVES.**—Dr. G. H. Bartley, the analytical chemist of the Brooklyn Health Department, has submitted a report to Commissioner Raymond, M.D., on the qualities and dangers of these substances as food preservatives. There are several well-authenticated cases, the report says, of poisoning from their use. “ Venetian red ” is used by bologna sausage makers to keep the meat free from taint, and to give it a bright color. “ Rex magnus,” Dr. Bartley says, he has found to be used extensively to preserve milk and other articles. It is composed principally of borax and boracic acid. The quantity required for the preservation of milk is such as to give to each quart of milk about ninety grains. It is tasteless and odorless. As a child one year old will consume a quart of milk in twenty-four hours, it is unsafe to allow the use of the preservative. The Doctor says stale milk may often be sent to market that has been kept by the use of this preparation two or three days.

Health Commissioner Raymond issued an order prohibiting the use of these materials in articles to be sold for human food.—*Sanitarian*.

**AN EXPENSIVE DRUG.**—The most expensive drug in the market at present is ergotinin, the German preparation of which costs 200 marks (£10) a gramme (15 grs.), while a milligramme (1-70 gr.) of the French preparation in solution costs 1½ mark (1s. 6d.)—*Wien. Med. Blätter*.—*London Medical Record*.

**TYPHOID FEVER AND ETHER.**—A French physician has published five cases of typhoid fever treated by subcutaneous injections of ether, which he considers as the best mode of administering stimulants in the adynamic forms of the disease. Two injections of twenty drops each time were made daily, and under its influence the patient was aroused and delirium ceased. In pneumonia, these injections are of the greatest utility, as they are in every malady assuming a typhoid form.

BLEACHING SPONGES.—The following process was, says *New Remedies*, devised by Mr. John Borham, and has been in use in Bellevue Hospital for a considerable time :

Soak the sponges, previously deprived of sand and dirt by beating and washing, in a one per cent. solution of permanganate of potassium. Then remove them, wash them thoroughly with water, and press out the water. Next put them into a solution of one-half pound of hyposulphite of sodium in one gallon of water, to which one ounce of oxalic acid has been added, and leave them in the solution for fifteen minutes. Finally, take them out, and wash them thoroughly.

By this treatment the sponges are rendered perfectly white. Many sponges contain a more or less dark-colored, brownish core. If treated only with permanganate and acid, the core is either not bleached at all, or if it has been somewhat bleached, the tint is apt to grow again darker. By the above modification, every portion of the sponge is rendered white, and remains so.

AN EMULSION OF CASTOR OIL.—Julius Mulfinger contributes a note on emulsions to the *Pharmaceutische Centralhalle*. A physician in Brussels proposed to me the problem of preparing a cheap emulsion in very concentrated form for a patient suffering from skin disease. Five litres of oil were to be used in a full bath. Castor oil was selected as the cheapest easily-emulsifiable oil, and the experiments were limited to this oil. It was not so easy to find a suitable emulsifying agent. Experiments were made with gum arabic, tragacanth, albumen, marshmallow, linseed mucilage, soapwort, and decoctions of quillaya. Saponine and cholesterine were excluded, partially on account of the cost, and partially because some other experiments with them had failed. The emulsions with gum arabic and tragacanth held best, and after these marshmallow and quillaya, but the latter was brown. The emulsions with linseed and soapwort were also unsightly and less permanent. All had one disagreeable quality—that of decomposing in from three to six days, smelling sour and becoming useless.

The numerous favorable results that had previously been obtained with quillaya as an emulsifier led me to try it again. It did not seem advisable to use the tincture because alcohol decomposes emulsions, but in spite of this fact very good results were obtained by shaking the tincture with water. Five parts of tincture of quillaya (5 to 1) were mixed with ninety-five of castor oil and thoroughly shaken; without water it formed a complete emulsion having the appearance of condensed milk, and was easily miscible in all proportions with water. Even in warm weather it showed no indications of change at the end of six weeks.

This emulsion mixed with equal parts of syrup of orange flowers or almonds is an excellent form for administering this laxative, otherwise so difficult to take.

I would add that when ten per cent. of the quillaya tincture is mixed with tincture of benzoin, water can be added to the mixture in any proportion and yet the resin remain permanently suspended, which it is often difficult to do in any other manner.

WINES.—The British consul at Bordeaux, in his last report, states: "Low-priced genuine Bordeaux wines must be regarded as non-existing. If the well-known Bordeaux wines are advertized for sale at the same prices as used to be charged ten or fifteen years ago, or in times of exceptional abundance, such wines are not the growth of the vineyard under the name of which they are offered for sale. The prices of the commonest class of Médoc wines (*vin ordinaire*) have increased seventy-five to one hundred per cent. during the last

decade. To buy pure genuine Médoc, or other well-known wines of this district, a far higher price must be paid for them than has been obtained for some years. The quantity of adulterated and falsified (so called) 'Bordeaux wine' exported at present annually is very considerable."

COD-LIVER OIL.—The following hints on this subject, from Dr. Edward Ellis's authoritative work on "Diseases of Children," deserve to be noted by our professional friends.

The secret of giving cod-liver oil successfully is *not to give too much*, and to give it at the right time. Small quantities are best to begin with (a few drops for a very young child; ʒss.—ʒi. for older ones), in orange-wine, or a little weak nitro-muriatic acid in water, well sweetened. It should be given so as not to clash with meals, or soon after a meal: if before, it spoils the appetite. Bedtime is a good time, when it causes sickness; the child lying down immediately afterwards, it is usually well retained. When it causes diarrhoea, and often in rickets, I give it with equal parts of lime-water. A little iodide or phosphate of iron may be dissolved in it, or a little phosphorus, when the administration of that drug is desirable. As an external application to many obstinate forms of eczema capitis and other cutaneous diseases, I have found it extremely valuable. If necessary it may be made into an ointment, as:

℞. Ol. morrhuæ.....	ʒ ss.
Liquor. potassæ.....	ʒ ss.
Adipis.....	q.s.

Ft. unguentum (Dr. Néligan).

When cod-liver oil cannot be tolerated, glycerine and cocoanut oil are the best substitutes. They should be given in doses of ʒi.—ʒij. two or three times a day. I have tried the Dugong oil, but do not think that it possesses any special merit, nor yet the cod-liver oil emulsions, jellies, etc. I much prefer the plain oil. Some bear the light-brown kinds well, others prefer the pale. Burgundy or claret make good vehicles for cod-liver oil. Or it may be given sandwich fashion, in a little brandy and water at the bottom of the glass; then floating the oil, wetting the side of the glass with brandy and water, and finally pouring a little *rather* stronger over the top of the oil, will make it slip down tastelessly. Ice in the oil also renders it nearly tasteless. If the oil be thick from cold weather, it should be warmed and made clear before administration. As a rule, children get to *like* it without artificial means of any kind, I am therefore merely supplying hints for possible difficulties.

SALICYLIC ACID TO AVOID VARIOLA.—The editor of the *Southern Clinic* certifies, along with Dr. Claridge and Dr. De Cailhol, to the abortive power of salicylic acid in variola, given in the ordinary doses. Dr. Bryce thus concludes: "I believe salicylic acid used early and freely will place small-pox in the category with measles, chicken-pox and other trifling complaints.—*Louisv. Med. News*. [More facts are needed.]

"THE NEWER MATERIA MEDICA." By PARKE, DAVIS & Co., Detroit, Michigan, U.S.A., 1883.—This useful and compact little volume contains a great deal of valuable information concerning many remedies which are gradually taking a place in the list of medicinal agents. *Convallaria majalis*, *Rhamnus purshiana*, *Piscidia erythrina*, *Myrtus Chekan*, *Yerba santa*, and *Berberis aquifolium* names familiar enough to all; but there are few who would not be glad to obtain further information concerning their uses and properties. The work issued by Messrs. Parke, Davis & Co. is of very great value, and will be read with interest.

NOTE ON IODOFORM, BY PHILIP LEIDY, M.D.—From time to time recently there have appeared, in various medical journals at home and abroad, paragraphs recommending certain essential oils, such as the expensive oil of rose, geranium, etc., to be used for the purpose of concealing the persistent and disagreeable odor of iodoform. Considering the rank the latter has reached in therapeutics, such concealment is much desired. To add to the list I would recommend the oil of citronella as the most certain and satisfactory. Two drops of the oil to the drachm of iodoform will be found sufficient. It may be used for the same purpose with cod-liver oil when prescribed for external use. The oil itself is used as a rubefacient and anodyne externally, either alone or in combination. I am fully convinced of the advantages claimed for it. The price of the oil is a mere song, and as such is within the reach of all. The oil of chaulmoogra (very expensive), much lauded as an external application for sciatica, etc., I found much enhanced in its therapeutic value by combining with it the oil of citronella in the proportion of one-third of the latter. As it is comparatively little known to the profession in this country, I would recommend a trial, and am sure its use would become more general.—*Medical Times*.

FOREIGN HONORS TO AMERICAN PHARMACISTS.—Messrs. Parke, Davis & Co., of Detroit, have lately been the recipients of very distinguished honors abroad. They exhibited at the late International Pharmaceutical Exhibition, at Vienna, a line of the products of their laboratory, including preparations of the newer remedies with which their name has become so intimately associated, pills, gelatine products, etc. Their display was evidently a revelation to the Europeans, who affect to despise American pharmacy, and who were scarcely prepared for the display of artistic elegance and pharmaceutical excellence which characterizes the products of this house. The Emperor and Arch Duke Karl Ludwig took especial pains to compliment Mr. Wetzels, the representative of the house, on the beauty of the display, which also won from the jury of award of the Exhibition a gold medal.

PURGATIVE COFFEE.—The following decoction is recommended in *Progrès Médical* as an agreeable purge:

Senna .....	ʒ	v.
Roasted coffee .....	ʒ	ijss.
Boiling water.....	ʒ	iiij.
Milk.....	ʒ	jv.
Sugar.....	ʒ	i.

To be taken in a single dose by an adult.

We may remark for the benefit of readers that the same end is secured by simply mixing the proper dose of infusion or extract of senna with an ordinary cup of coffee. The taste of the drug is completely disguised, and its action is promoted by the coffee.

PRESERVATION OF URINE FOR MICROSCOPICAL EXAMINATION.—According to Dr. Curtis, the addition of about grs. iv. of chloral hydrate to oz. iiij. of urine will preserve it for a month, if kept at ordinary temperature.—*L'Indépendente*.

COCA-PLUG.—A combination of coca and tobacco is being quite extensively advertised in the St. Louis papers. Certificates from six prominent St. Louis physicians to the effect that tobacco and coca would be less injurious to the system than tobacco alone form a part of the advertisement.—*Medical World*. [To use the coca alone would be still less injurious, and not to use either is best of all.—ED.]

**SODIUM HYPOSULPHITE.**—Dr. W. E. Buck writes in the *British Medical Journal* on the inefficiency of disinfectants in allaying the fetor of cancerous ulcers. After failure with a number of disinfectants, he tried a saturated solution of hyposulphite of sodium added to an equal quantity of water, and found it exceedingly efficacious. This disinfectant is cleanly, has no smell, does not stain and is cheap.

**GOOD STRONG VINEGAR.**—Dr. Squibb recommends a mixture of diluted acetic acid two hundred and fifty-six parts, alcohol one part, or about one-half fluid ounce to the gallon. (*N. C. Med. Jour.*) If the mixture be set aside for a few weeks—the longer the better—enough acetic ether is generated to give it the full, clean aroma of fine vinegar; and then for table use it is very far superior to vinegar made in the ordinary way by fermenting cider, and it is more wholesome, because free from decomposition, products of the fermentation of rotten or bad fruit, and free from animalculæ and other impurities always present in vinegar by fermentation.

**CARBON MONOXIDE AND PREGNANCY.**—A debated point in animal physiology is the question whether carbon monoxide can pass from the maternal to the foetal circulation. The influence of the subject outside the sphere of pure physiology is small but important. Accidentally or suicidally, a pregnant woman may have succumbed from the respiration of fumes from burning charcoal. Can the life of a viable foetus be saved by the timely aid of a Cæsarean operation? From his investigations on rabbits, Mr. Hogenes has answered this question in the affirmative, since he was unable to detect the gas in the foetal circulation by means of the spectroscope. MM. Gréhant and Quinquaud, however, conclude (see *La France Médicale*, No. 16) that, in small quantities, carbon monoxide may pass over from the maternal to the foetal blood.

**INODOROUS IODOFORM.**—The peculiar odor of iodoform is found to be well masked by the addition of attar of rose, one minim to the drachm, or of essence of rose geranium, three or four minims to the drachm. The clinic room gets to smell like a florist's shop.—*Polyclinic*.

**INCOMBUSTIBLE PAPER.**—M. G. Meyers, of Paris, is stated to have invented an incombustible paper, which in addition to its power of resistance to extreme heat has the merit of preserving its normal appearance under the action of fire. The utility of such a material is obvious. Amongst other purposes to which it may advantageously be applied is the construction of non-inflammable theatrical scenery, the combustible nature of which, as at present in use, has contributed so largely to disasters from fire in places of scenic entertainment.

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**FRUIT JELLIES MADE WITHOUT FRUIT.**—M. Girard, director of the Paris Municipal Chemical Laboratory, says that the chemical knowledge applied to the concoction of spurious foods and drinks is of a very high order, and would suffice to make the fortunes of the adulterators a dozen times over, if applied in an honest capacity. The matter which seems to have aroused him of late is a peculiarly ingenious thing in gooseberry jelly. It appears that the article is made entirely of seaweed. The coloring matter is fuchsine, and the flavor is given by a compound of acetic ether, tartaric acid, aldehyde, and cenanthic. Inspectors often recognize it from the fact that it is "a little more elegant than the genuine article." M. Girard ought to send over to a New York grocery if he wants first-class jellies of all kinds made without the real fruit.

## LECTURES.

NEW METHOD OF OPENING PSOAS ABSCESSSES. Lecture delivered at the General Hospital, Birmingham. By T. F. CHAVASSE, M.D. Edin., F.R.C.S. Eng., Surgeon to the Hospital.

GENTLEMEN : The proper method of treating psoas abscesses, depending upon caries of the spinal column, with expectations of relieving the patient and of obtaining a successful issue, is a question on which there is not a unanimous agreement of opinion amongst surgeons at the present time. Some still consider it best to advocate an expectant policy, and, when driven to active measures, believe that frequent aspirations or small valvular openings made as far as possible from the primary seat of the disease, and closed immediately after the escape of the pus, are the measures likely to be most serviceable in these cases. Such shrink from a free incision into the abscess cavity, owing to the practical fact that severe constitutional symptoms will follow the proceeding if undertaken without special precautions. But the teaching of Sir Joseph Lister, and the introduction of antiseptics into our daily practice, have proved that many operations can now be undertaken with safety and success by those who have had adequate training and experience, which a few years ago would have been deemed rash and unwarrantable. With this knowledge, I would urge that a spinal abscess should be regarded in the same light as a collection of pus due to osseous disease in any other region of the body, and that a free incision should be made and efficient drainage established as soon as the diagnosis is complete. The relief to pain which this evacuation affords is very marked, and will frequently at once restore appetite and healthy sleep—matters of much moment to those affected with a condition which, under the most favorable circumstances, runs a course extending over several months. The best position for making the necessary incision and draining orifice in cases of psoas abscess I propose to consider with you to-day.

The patient before you is twenty-eight years of age, and has a very marked angular curvature involving five of the lower dorsal vertebræ. His history is that he was admitted into the hospital on March 10, 1883, and that for eighteen months before he had experienced darting pains in the lumbar region of the spine, causing intense suffering, which was aggravated by movement or by lying on the back. In September, 1882, pain was felt in the right groin, and movements of the thigh were accomplished with difficulty. Shortly afterwards, a lump was noticed in this situation, and continued slowly to increase. On admission, this swelling was found to be a collection of pus in the sheath of the psoas muscle.

On March 20 the abscess was opened in the following manner : An incision was made immediately above the crest of the ilium, commencing at the edge of the erector spinæ muscle and carried transversely outwards for four inches towards the anterior superior spine. Having divided its various structures as in colotomy, the anterior edge of the quadratus lumborum muscle was reached. The forefinger was then passed downwards and forwards on the iliacus until the tense and distended psoas sheath was detected. A scalpel introduced by the side of the finger incised the abscess sac, and the opening was subsequently enlarged by the introduction of a pair of dressing forceps. This proceeding gave exit to a pint and a half of pus. Still keeping the forefinger in the wound, two



large drainage tubes were introduced into the abscess cavity and left there.

The patient progressed favorably; in a month the drainage tubes were no longer necessary, as the matter escaped freely without artificial aid. By July 10 the discharge was so much reduced that a poroplastic jacket was fitted on over the antiseptic dressings. A fortnight later he was allowed to get up. In August the wound was quite healed, and the patient returned home. He now gains a livelihood for himself and family, to use his own phraseology, "by doing odd jobs."

Another case in which the same plan of treatment was adopted was that of W. E. K——, aged thirty-five, who had a history of back pains of four years' duration, and a distinct angular curvature of one year's existence. Date of admission, January 22, 1883. At that time the patient was pale and emaciated, with an exceedingly large antero-posterior curve, involving ten vertebræ, and a psoas abscess pointing below Poupart's ligament. The pain in the back was so great that the man, a chemist by trade, was accustomed to take subcutaneously eight grains of morphia daily. This was reduced gradually to two grains and a half. On February 14 the abscess was opened from behind, and two pints of pus, together with much thick caseous material, were evacuated. The relief to pain by letting out this pent-up matter was very great. For some days the discharge was excessive, but by the beginning of March it had so materially diminished that on the 9th of that month the drainage tubes were withdrawn. In May it was necessary only to dress the wound once in five days or a week. In June he left the hospital at his own request, the sinus being unhealed, and his urine containing much albumen.

Mr. F. A. Hallsworth, of Atherstone, who attended the case subsequently, has kindly informed me that death took place on September 30th; that a sinus always remained, through which, without any trouble, the drainage was effected. Amyloid degeneration of various viscera hastened the end.

You will naturally ask, Why open psoas abscesses pointing in the thigh above the iliac crest? The following are the advantages claimed for the procedure I have practised in these two cases:

1. The abscess is tapped, and the pus escapes at the most dependent point it is possible to obtain, and, as the patient lies on his back, the cavity drains itself without trouble or difficulty.

2. When a sinus is thoroughly established, the drainage tubes may be omitted at an early date, and any accumulation is unlikely to take place.

3. The drain hole is very near the diseased bone, so that the three or four inches of abscess cavity below this point becomes obliterated almost immediately after the operation. Hence a diminution of secreting surface.

4. The pus escapes from an orifice removed from the genital organs, and the chance of the wound becoming septic is lessened.

5. The antiseptic dressings can be applied and retained in position more readily than if the drain opening is in the thigh. Moreover, the pus will not so easily reach the edge of the dressing, and consequently it will not be necessary to make changes so frequently.

6. From its situation the patient is less likely to interfere with the dressing than if it be applied anteriorly.

The disadvantages of making the incision in the position indicated are that the operation is slightly more difficult, some muscular fibres are severed, and there will be a little more bleeding than if the abscess

be opened where it points on the inner side of the thigh; but all of these objections are trifling as compared with the satisfactory drainage. Even if the pus has burrowed beyond the thigh, and has reached the knee or a lower point in the extremity, the incision should still, in the first instance, be made in the back, and the abscess tapped there. Subsequently an opening may also be made where the pus is pointing to allow the escape of the fluid accumulated below the principal draining orifice; this secondary incision will soon heal. The next best position to open a psoas abscess for antiseptic purposes is above Poupart's ligament, by means of an incision, as though about to ligature the external iliac artery. Having reached the transversalis fascia, by pressure below the pus can be made to bulge, or, failing this being accomplished satisfactorily, an opening large enough to admit a probe may be made in the thigh where the abscess is presenting, which when passed up under Poupart's ligament will indicate the whereabouts for the free incision in the deep textures. After the tubes have been inserted the orifice in the thigh closes. The drainage of the abscess in this position is not so good as by the other method; the opening not being so dependent, the tubes must be retained for a longer time, and more difficulty is experienced in getting a free escape of the pus. In one instance in which I operated by this plan upon a woman with a psoas abscess, the result of the disease of the sacro-iliac synchondrosis, the fingers of the patient would wander under the dressings in spite of all protestations and threats, and the result was a septic condition of the wound, and eventually death. It was this case that made me recall the method of posterior incision, which, I believe, Mr. Chiene, of Edinburgh, was the first to advocate.

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ON October 24th, the University of Edinburgh completed the three hundredth year of its existence. The Medical School dates from a hundred years later.

MUSIC AND PHYSIC. There can be no question about the influence of music upon the processes of thought and emotion; and disease, we know is very largely a matter of thinking and feeling. Why, then, should not disease be checked and controlled by the application of a concord of given sounds as well as by the swallowing of a prescribed course of pills or powders? In many cases, perhaps, what we call disease is only a longing for harmony and melody, a reaching out after something pleasant to listen to. It may be, if we but knew it, that often when we think we require calomel, quinine, or podophyllin, we really need to have "The Arkansaw Traveler" executed for us on a violin, or "Peek-a-Boo" warbled for us in a voice adapted to the emergency. Herbert Spencer has analyzed this mysterious connection between music and the scheme of feeling in a very profound and skilful manner. He does not go quite to the extent of recommending music in place of ordinary medicine, but his theory tends toward such a result. Every mental excitement or emotion, he declares, is accompanied by a corresponding muscular action, and the finer and loftier feelings find expression through the muscles that are exercised in the production of music. The philosophy of treating neuralgia with a tuning-fork obviously rests upon the same principle which Mr. Spencer here announces, and we have but to pursue it to its legitimate conclusion, and it is bound to justify the doctrine that in music lies the true secret of dealing with sickness.—*St. Louis Globe-Democrat.*

## REVIEWS.

THE MECHANISM OF SPEECH. THE ORGANS OF SPEECH AND THEIR APPLICATION IN THE FORMATION OF ARTICULATE SOUNDS. By GEORG HERMANN VON MEYER, University of Zurich. New York: D. Appleton & Co. 1884.

There are books that give in general terms the anatomy of the mouth and throat, in order to explain the mechanism of speech, but none that enter so fully and minutely into the matter, regarded from the point of view of the student of philology. Prof. von Meyer proceeds in the order of science, and examines in natural sequence the appearance and function of the organs of speech, and, after a careful understanding of these, takes up the relation between the organs of speech and the formation of sound, devoting the third and last part of the treatise to articulation proper. Probably the newest portion will be, for ordinary laymen, the pages on unusual forms of the respiratory mechanism, such as hiccough, gaping, and stammering.

“Hiccough arises from over-irritation of the nerves of the diaphragm, the cause of which we know to be either psychical conditions or overfilling of the stomach. The influence of the latter is undoubtedly due to the fact that the overlaid stomach resists to a greater or less extent the fall of the diaphragm; the contractions of the diaphragm become, therefore, necessarily more labored and occasionally, like other over-irritated muscles, assume a convulsive character. Frequently, however, the hiccough appears as a sign of the general over-irritation of the nervous system in hysteria, and probably from the same person it may not uncommonly be observed in otherwise healthy young persons, particularly children. The above explanation of hiccough as a convulsive contraction of the diaphragm is further confirmed by the manner in which it may be stopped. It is only necessary to allow an exceedingly protracted and finally forcible expiration to follow a long and quiet inspiration. Gaping also arises from a convulsive form of inspiration, which, however, is not so short and violent as the hiccough. The whole phenomenon seems an indication of strong desire for air, and the existence of this desire under these circumstances in which gaping is generally observed—sleepiness, for instance, or weariness—may be perfectly explained as follows: Such circumstances are accompanied by a general inactivity of the nervous system, which shows itself in a weak respiratory action, insufficient for the body when awake, so that after a time a more or less marked desire for air must arise, the demand for which is announced by gaping. The root of that defect in speaking which we call stammering lies also in spasmodic inspiration, and so resembles the hiccough that here, as in the latter, the diaphragm is subject to spasmodic contraction. The defect in speech is, however, a phenomenon which only at times accompanies the spasm of the diaphragm, being due to an attempt to speak during the spasm. There may be no attempt to speak; in this case it will not cause stammering, but will be quite imperceptible to the observer. Great physical excitement will occasion attacks of stammering. If, now, stammering is only an occasionally observed symptom of a long contractile spasm in the diaphragm, it must be clear that all attempts to cure stammering by exercising the organs of the mouth and throat must be unsuccessful.”

This long quotation shows the excellences as well as the limitations of Prof. von Meyer's able treatise. It is well to point out how much deeper seated than most people imagine are the defects so very common in articulation. At the same time there can be little doubt that great help can be obtained by working from the outer organs to the inner, or rather to the nervous system, for such procedures are very apt to soothe the nerves. Moreover, in many cases the radical defect is somewhere in the organs of speech, and neglect has had its

inevitable bad effects on the nerves governing the diaphragm. It is like brain and stomach; does the headache come from one or the other? To singers, actors, and elocutionists; lawyers, clergymen, and whoever needs to exert the voice, the last part will be most useful if due attention is given it.

CONFEDERATE WAR PAPERS. By GUSTAVUS W. SMITH, late Major-General Confederate States Army. New York: Atlantic Publishing and Engraving Company. 1884. From the author.

It is, of course, unusual to review works of general literary interest, in a medical journal, and when the work is war-like in character and origin, all peaceable old editors should refrain from indulging in such martial, if very interesting, labor. In the present case, however, though the time has long since past for so peaceable an editor even to fight over old battles again, there must be an exception to the rule, for the author of this most valuable work is one with whom the editor of this JOURNAL served as his Medical Director during a great portion of "the late war." Apart from this excellent reason for making an exception to a very useful rule, it must be claimed that physicians cannot always be regarded as devoted solely to the pestle and mortar, the lancet and bistoury, or the pills and plasters of the profession, but that "they are very men," and take not only an interest, but an earnest interest, in questions affecting their fellow men, and in all forces manifesting grand results in the historical revelations of their day and generation. For these reasons and others this review is presented.

Gen. Smith has for forty years been greatly admired by the military men of this country. He graduated at twenty-one at West Point, was appointed Lieutenant in the United States Corps of Engineers, and in two years afterwards was Assistant Professor of Civil and Military Engineering and the Art of War at this famous military academy.

He left soon after to serve with great distinction in the Mexican War, and was oftener breveted than any officer in the army. Indeed, the Secretary of War and President struck off one of his brevets, "on the ground that no second lieutenant could by law hold three brevets at once." He was complimented in orders by Generals Scott, Harvey, Twiggs, and other distinguished officers, with whom he served; and being with General Scott, throughout nearly all of his Mexican battles, entered with him the City of Mexico. At the close of this war he was (covered with laurels and honors) sent back to West Point as professor of the Art of War.

After some years he resigned his commission, and served with distinction in various positions of civic relation and character.

At the commencement of the Confederate struggle, and before the secession of his native State, Kentucky, he reported at Richmond, Va., and was at once made commander of one-half of the Army of Virginia. He afterwards commanded the old First Division; then the department of Aquia; and again one-half of the army around Richmond, Va. At the battle of "Seven Pines" (where his Medical Director lost his right arm) General Smith commanded with great efficiency. He was on that day placed in command of the entire army, being relieved some days after by General R. E. Lee, who led that classic and immortal command until "the flag was furled at Appomattox."

General Smith being invalided (June, 1862,) was allowed a 60 days' respite, and, reporting for duty, was placed in command of Richmond and its defences, and over all of the country extending from Cape Fear River in North Carolina, to the Rapidan in Virginia. In this great belt were quartered over 40,000 sick and wounded (27,000 in Richmond), and to this number were added over 20,000 men on active duty, making a command of over 60,000 soldiers and enlisted men; the largest command in the Confederate service.

From causes carefully narrated in this book, he resigned his commission in 1863, and served with great gallantry, as commander of the forces of Georgia, until the close of the war.

Such is very briefly his record, as given in this volume. He is now in New York City.

The book is one of great value. In it there is to be found, for the first time, a record of the causes which led to the fall of New Orleans. As official letters and papers are given, this account is one of great interest and importance.

There are also presented, for the first time in history, the true reasons which prevented the Confederate Army, after "the first Manassas," from capturing the city of Washington, which, as all know, could easily have been done. In addition, very valuable information is given in regard to matters in and around Richmond and Virginia; and as in 1862 General Smith was appointed by Mr. Davis, Secretary of War *ad interim*, his sources of information, throughout his narrative, could not have been better. He gives the only correct history of the battle of "Seven Pines," so far published, with a most valuable map of Richmond and its defences, and a war map of the positions of the contending forces at the battle of the Seven Pines.

Most of this work is made up of indisputable facts never before given to the Public, and sets forth the truth, in correction of the very many errors which have soiled and injured publications of kindred object and purpose.

The price of this volume, which contains also a steel plate engraving of the author, is \$2.00; which sum can be sent to the author, at 12 Perry street, New York. The book is well issued.

MANUAL OF GENERAL MEDICINAL TECHNOLOGY, INCLUDING PRESCRIPTION WRITING.  
By EDWARD CURTIS, A.M., M.D., Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Medical Department of Columbia College, in the City of New York. New York: William Wood & Co. 1883.

The author of this work is well known as a careful and efficient teacher. His book is written in the "lecture style," and is, most likely, presented as it was delivered to his class.

In a theoretical view of the matter, it is adapted for the use of medical students, but in reality it will be useful to many practitioners; for a very large number of physicians seem to be ignorant of the rules which should govern the writers of prescriptions. Bad spelling; the intermingling of the nominative and genitive cases; the use, alternately, of the technical and English names of the elements of the prescription; and "dog Latin" used in the directions are very common blunders. Even in text-books such errors appear. Those who feel that they cannot write a prescription correctly should buy this book, and study it: when none of their clients are near!! It is a very good book and has its uses.

ELEMENTS OF HISTOLOGY. By E. KLEIN, M.D., F.R.S., Joint Lecturer on General Anatomy and Physiology in the Medical school of St. Bartholomew's Hospital, London. Illustrated with One Hundred and Eighty-one Engravings. Philadelphia: Henry C. Lea's Son & Co., 1883. 12mo. pp. xii-352, (Students' Series of Manuals.)

This book is a *multum in parvo*. It is seldom indeed that one finds so much of great value in so small a space. It is a faithful mirror of modern histology, and is carefully worked up to date. The most recent researches and demonstrations are faithfully embodied in the volume. The wood-cuts are accurate and of a superior order, and the references copious and useful. It may safely be

said that there is no work now before the profession in which the reader can learn so comprehensively, so accurately, and with so small an expenditure of time, the great, indeed the chief, facts of modern histology.

SEPULTURE: ITS HISTORY, METHODS, AND SANITARY REQUIREMENTS. By STEPHEN WICKES, A.M., M.D. Large 8vo. pp. 156. Philadelphia: P. Blakiston, Son & Co. 1884.

This book is a plea for sepulture. In the present "craze" in regard to cremation its publication is timely, and will accomplish, it is hoped, good results. Very few careful thinkers really believe that there is any real need for cremation. All admit that there are abuses in sepulture; as when there is a great crowding together of the dead; when the burial is superficial and insufficient; when the same ground is used more than once; where graves are uncared for; and when caving in of the earth is unremedied, etc., but that sepulture in rural cemeteries is a source of danger, or that cremation is needed, very few are prepared to admit. Of course there are some soils, as at New Orleans, where burial is almost impossible, and where cremation is really necessary; but, as a rule, sepulture in rural grounds is perfectly safe.

THE PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By FREEMAN J. BUMSTEAD, M.D., LL.D., and ROBERT W. TAYLOR, A.M., M.D. Fifth edition, revised and rewritten, with many additions, by DR. TAYLOR. 8vo. pp. 906. Philadelphia: Henry C. Lea's Son & Co. 1883.

This work has always been one of the ornaments of the library, as well as one of the best guides in practice. It is one of the very few American medical classics. Its accomplished author gave not only all that was necessary for the guidance and information of the practitioner, but had made his work a museum, so to speak, in which were carefully preserved very much of the curiosities and earlier records of his department. He had prepared, as is well known, but little of the last edition of his book, his illness being such as to prevent such labor, and his co-ordinate really prepared that edition for the press. Dr. Taylor has added some seventy pages to the book, and has made it to correspond more thoroughly with the best modern works. As it appears to-day, it is a most valuable and useful volume. The chromo-lithographs, cuts, paper and binding are unusually excellent.

WHAT TO DO IN EMERGENCIES. A Manual Explaining the Treatment of Surgical and other Injuries in the Absence of a Physician. By CHARLES W. DULLES, M.D. Second edition. Philadelphia: P. Blakiston, Son & Co. 1883. Cloth, pp. 119.

The title page of this work is a very fair indication of its object and scope. It has been the fashion, since Esmarch originated this drilling of unprofessional people to do professional work, to go into hysterical adulations over the matter; and many doctors, some with good motives and some with bad, have gone before the secular Public in connection with it. They have been advertised in the great daily papers; have organised, with the aid of politicians and lean and lank old maids, first-aid societies; have "lectured" to factory and railroad hands, cigar makers, the police, etc., teaching them where the great arteries run, what the bones are called, etc. And yet common sense ought to teach physicians at least that the whole movement is a delusion and a snare. What to do in emergencies is easily told: keep the patient quiet and get a good doctor as soon as possible. The book is a very fair one.

**AN ETHICAL SYMPOSIUM.** Being a series of Papers concerning Medical Ethics and Etiquette from the Liberal Standpoint. By Different Authors, with an Appendix. New York: G. P. Putnam's Sons. 1883. Cloth, pp. 210. Price \$1.25.

In this work are gathered together a series of papers by very excellent members of the profession, who wish to show nine-tenths of the Medical Body that one-tenth of it is right on the subject of ethics and nine-tenths of it are wrong. Their views are presented with care and moderation, and it is only to be regretted that so much careful writing is entirely thrown away.

" Sev'ral wise men of Gotham  
Went to sea in a bowl;  
If the bowl had been stronger  
My song had been longer."

By **JOSEPH COATS, M.D.**, Pathologist to the Western Infirmary, and the Sick Children's Hospital, Glasgow; Lecturer on Pathology in the Western Infirmary; Examiner in Pathology in the University of Glasgow, President Pathological and Clinical Society, Glasgow, etc. With 339 illustrations. Philadelphia: H. C. Lea's Son & Co. Cloth, \$5.50; sheep, \$6.50.

This is one of the really excellent works which the publisher has contributed to the medical library. It is carefully and correctly written, and is definite and specific in regard to the views expressed. Of course there is no claim to originality in the volume; pathology is common property, and any real discoveries in its domain are thoroughly made known by medical journals long before they can reach the Public through formal text-books.

Perhaps the only tendency to originality is to be found in the author's efforts to give the macroscopic and the microscopic descriptions in connection with each other; a very useful device. The portions of the work devoted to a discussion of the subject of bacteria are quite full and elaborate. He leans to the popular views of the day as to multiform and specific bacilli.

The book is beautifully issued and profusely illustrated. One may well predict that it will be an authority with experts.

**THE DISSECTOR'S MANUAL.** By **G. W. BRUCE-CLARKE, F.R.C.S.**, and **CHARLES BARRETT LOCKWOOD, F.R.C.S.** Philadelphia: Henry C. Lea's Son & Co. 1883.

This is a fair book; no more. The plan of the author is to divide the body into regions, and to explain to the student how these regions are to be dissected out and the parts contained fairly exposed. The plan and the method of its execution are very fair. The cuts are fairly good, though the presentations of the front and back of "the subject" are very poor.

**A PRACTICAL TREATISE ON IMPOTENCE, STERILITY, AND ALLIED DISORDERS OF THE MALE SEXUAL ORGANS.** By **SAMUEL D. GROSS, A.M., M.D.** Second edition. Thoroughly revised. With 16 illustrations. 8vo. pp. 174. Henry C. Lea's Son & Co. 1883.

This is the best work on these subjects now before the profession. It is a work which will be a positive addition to any physician's library.

## MISCELLANEOUS.

PREHISTORIC TREPHINING.—Mr. T. F. I. Blaker, M.R.C.S., writes as follows to the *Lancet*: “That many operations in surgery were practised in remote times is undoubted, but I think few surgeons realize how very ancient indeed is the operation of trephining, or, as it was formerly called, trepanning, the skull. During recent years some curious discoveries have been made in France and elsewhere conclusively proving that trephining was practised by neolithic man, and, further, that the operation was oftentimes successful. These later stone-age men must have inhabited Europe several thousand years ago, and were, of course, excessively barbarous, ignorant, and superstitious. Indeed, it was their very superstition which led them to trephine the skull—so Professor Broca informs us, and he has given the subject his greatest attention. Trephined human skulls have been found by Dr. Prunières of Toulouse in the cave of Homme Mort in the Department of Lozère, in the caves of La Marne and of Lourdes, near Pau, in the Canary Isles, in Algeria, in Mexico, and in Peru. The operators had, of course, no better instruments than more or less perfectly sharpened flints, and with such rude tools they performed their operation. First a **V** or **T** incision was made down to the bone, the flaps were retracted by assistants, and the bone was then persistently scraped until at length an opening was made sufficiently large to expose the brain and its membranes. This opening was a *viaticum* or way of escape for the demons who had taken possession of the body and were causing the epilepsy or insanity, for such were the ‘cases’ which were operated on.

“Now, considering the class of case, the desperate nature of the operation, and the barbarous method of performing it, to say nothing of the after-consequences—*e. g.*, hæmorrhage, blood poisoning, erysipelas, the danger of injury to the brain, the want of proper nursing, and bad hygienic surroundings generally—it is wonderful that any one patient should have recovered; and yet, incredible though it seems to be, Dr. Prunières states that out of twenty skulls in his possession (all of which were trephined during life) nineteen of them exhibit indubitable signs of having recovered from the operation. This is shown by the fact of the edge of the bone having become smooth in consequence of the cells of the diploë having become covered by the newly-formed bony tissue.

“The discs of bone which were separated from the skull during the operation were looked upon as talismans possessing vast therapeutical power, and capable of counteracting witchcraft, and of preserving the possessor of them from disease. These talismans were therefore worn round the neck as amulets, and were considered as of priceless value.

“After the death of a patient who had survived the operation, it was considered ‘only fair’ to give the original possessor of the piece of bone so highly prized his own back to him once more. Professor Broca tells us that this was done in order that the deceased might carry with him into the next world this talisman, and so be preserved from the torments of the evil spirits which had haunted him on earth. This, says Professor Broca, is the earliest indication we have of a belief in a life beyond the grave. There is a touch of humanity to be discerned both in the operation itself and also in the restoration after death of the precious amulet to its rightful owner. This is the more remarkable when we consider what ‘untutored savages,’ if not cannibals, these neolithic men were.”

LORD SANDWICH once asked Foote whether he expected “to die from disease or the gallows?” “That depends,” said Foote, “on whether I first embrace your lordship’s mistress or your principles.”



INFLUENCE OF DIPHThERIA UPON PREGNANCY.—In a communication addressed to the Academy of Medicine of Paris (*Archives Générales de Médecine*, October, 1883), Dr. Ollivier concludes that diphtheria may acquire an additional gravity when occurring in pregnant women, because of the liability it has to cause abortion. This accident is due, in the larger number of cases, not to asphyxia nor to an elevation of the temperature of the blood, but to some alteration in this fluid, an alteration which, if it is undefined, is nevertheless incontestable. The possibility of abortion, with its dangers, calls for increased precautionary measures and more strict isolation in the case of pregnant women in the same house or in the same hospital ward with patients suffering from diphtheria.

AN EVER-READY SPLINT.—Much pain is oftentimes caused to the unfortunate possessor of a broken leg, by the handling necessary in removing him from the place of accident to a hospital or his home, and particularly is this so, if we do not happen to have handy a splint with which to steady the fragments. In the *Polyclinic*, Dr. R. J. Levis suggests a very sensible and efficient procedure, when he says “the uninjured limb can be made to temporarily act as a splint, and take care of the injured one, by simply bandaging the limbs together.

THE CONTAGION OF TUBERCULOSIS.—The following are the conclusions arrived at by M. Daremberg, in a communication addressed to the Academy of Medicine of Paris (*Bulletin de l'Académie*, October 7, 1883): 1. Tuberculosis is a disease of parasitic nature, transmissible by inoculation, alimentation or inhalation. 2. It is always caused by the absorption of a germ from without. 3. When occurring by inhalation the quantity of the contagion is of little moment. It can operate only in a suitable soil. In a word, contagion is an influence to which all are exposed, but which is operative only in those individuals in whom hereditary or acquired vices of nutrition have prepared a field suited to the growth and reproduction of the germ. 4. Local and general tubercloses differ only in degree. 5. Scrofula appears to be a diathesis, while tuberculosis is an infection engrafted upon diatheses. 6. The infectious germs of tuberculosis are not usually inherited, but rather the vices of nutrition which have provoked the disease in the ancestors. 7. Therapy, while permitted to seek for specifics, ought, in the way of prophylaxis, to aim at the destruction, through general hygiene, of the causes which prepare a fit soil for the reception of the tuberculous contagion. After the disease is established it should seek to combat the phenomena arising in the economy from the presence and proliferation of the infectious agent.

A SUBSTITUTE FOR TRANSFUSION OF BLOOD.—William T. Bull, M.D., Surgeon of the Chambers street and New York Hospitals, says the use of saline injections in Asiatic cholera in the early part of this century demonstrated the safety of such a procedure, and likewise its inefficiency in checking the career of that disease. Within a few years, however, this method has risen to the level of a life-saving measure, as a substitute for the transfusion of blood in conditions of acute anæmia and collapse. Of nineteen patients who have been subjected to the operation, when at the point of death, thirteen have entirely recovered; in three death was averted, but occurred later; and in the remainder only a temporary improvement was effected.

I have employed the solution as used by Szumann and also recommended by Schwarz, consisting of water,  $\bar{3}$  xxxij.; common salt,  $\bar{3}$  jss.; carbonate of soda, grs. xv., and in place of the irrigator a tubulated bottle with rubber tubing and canula attached, and have had distilled water at my disposal in but one case, when a two per cent. salt solution was injected. The average duration of the injection has been fifteen minutes.

THE TREATMENT OF THE PLACENTA AFTER DELIVERY.—Dr. W. P. Giddings, of Gardiner, Me., writes: “Noticing in your valuable journal of December 29th an article from the *Deutsche Med. Wochenschrift*, by Dr. Dohrn, on leaving the placenta for nature to remove, I am induced by it to add my strong endorsement of this method. In quite an extensive obstetric experience, I have adopted three several methods for the delivery of the placenta, viz.: following for the two first years of my professional life the one taught me by the late Prof. Buckingham, of Harvard, instruction to deliver at once, by compression and gentle traction upon the cord; second, Credé’s; and last—and to my mind the best—leaving it to the natural efforts of the uterus. I always follow with my left hand the contracting womb as the child is expelled, to insure the safe contraction, then entrust it to the nurse or some competent person while I tie and separate the cord. Having disposed of the child, I again place my hand upon the uterus, to make sure it does not unduly relax, and await its efforts after a natural period of rest. During six years I have followed this plan with not a single accident, or a delay of more than twenty minutes, with a single exception, and that was thrown off at the expiration of fifty minutes with no other inconvenience than weary waiting. Contrary, however, to Dr. Dohrn’s experience, I think a little more blood is lost than when Credé’s method is adopted, but I have come to look upon that as a more natural and conservative principle, inasmuch as my patients have made more rapid recoveries than when the case was hurried. I will add that, after delivery of the placenta, I always hold the uterus down until permanent contraction is secured.

WHAT CONSTITUTES ALCOHOLIC EXCESS?—This very important practical question having been up for discussion before the Philadelphia County Medical Society, Dr. Henry Leffman, struck by the diversity of views expressed thereon, has contributed an article on the subject to the *Polyclinic*, basing his assertions on recognized authorities. Alcohol is taken in excess when any portion of it escapes unchanged with the excreta. The capability of consuming alcohol must, of course, be somewhat dependent upon the nature of the individual, but the rule as given by Parkes will be found to be practically reliable. He fixes the limit at one and one-half ounces of absolute alcohol in the 24 hours. When given in excess of this some will appear unchanged in the urine, and the system will exhibit signs of alcoholic narcosis. To convert this amount into approximate equivalents of the given beverages is easy. Brandy, whiskey, rum and gin contain about one-half their volume of alcohol. Wine varies from one-tenth to one-fifth, and some samples are below and some above these limits. Beer contains about one-twentieth.—*Therapeutic Gazette*.

THE ANATOMY OF HÆMORRHOIDS.—At a recent meeting of the Pathological Society of London (*British Medical Journal*) Mr. Roeckel said that there were two views with regard to the structure of hæmorrhoids; according to the one they were varices, according to the other they were vascular growths (angiomas). He had examined about thirty specimens; as a rule a pile consisted of a layer of mucous membrane inclosing some submucous tissue in which lay enlarged veins with thickened walls; in one specimen only did arteries contribute in any sensible degree to the bulk of the pile, and in one case also the pile contained some muscular tissue. The epithelium on a pile ceased, at a certain point, to be columnar, and became squamous; the transition was not gradual, but quite sudden.

BEEF TEA.—There is in a bowl of beef tea but little, if any, more nutriment than there is in a glass of lemonade. The fact is well known to every profes-

sional reader, that albumen coagulates at a much lower temperature than that of boiling water used in the preparation of beef tea. Through this coagulation the albumen, or essentially nutritive portion of the meat, becomes entangled in the meshes and firmly held there, little or none of it finding its way into the decoction. The beef tea is, at best, a palatable stimulant.

A scientific gentleman made an experiment, which he undertook with a view to determining the relative nutritive value of Liebig's extract of beef. Three dogs were taken and shut up in separate pens side by side. The first dog was ordered a diet of Liebig's extract of beef and all the water he wanted to drink. Dog number two was restricted to water, being allowed nothing whatever to eat, while the third animal was allowed neither food of any kind to eat, nor water. Of course the dog that had no water was the first to die, but, surprising as it may appear, the dog which was furnished with water only outlived that which was fed on the meat extract, the latter dying with a quantity of the extract within six inches of his nose.—*Therapeutic Gazette*.

DOES SUNSHINE AFFECT COMBUSTION.—It is evident, from the correspondence of the *Science News*, that a considerable number of persons believe that when direct sunlight falls upon flames combustion is less active, and will ultimately be arrested by it. This view is, however, erroneous, as has been proved by carefully-conducted experiments. A candle arranged so as to burn at a uniform rate, and affixed to delicate balances, shows no change in the rate of consumption of wax when burned in the full blaze of the sun or in the shade. Precisely the same number of grains of the solid material are changed in and out of sunlight in a given time. When we kindle a wood or coal fire upon the hearth, it appears to the eye that the flame is less intense if sunlight comes in through the uncurtained window, and rests upon the ignited fuel; but this appearance is delusive. We need shade to observe clearly the process of combustion, especially when the flame is largely composed of burning hydrogen or carbonic oxide. A pure hydrogen flame is invisible in sunlight, and even light carburetted gases are indistinctly seen by daylight. No one need fear that sunshine will put out fire.

LOCAL ANÆSTHETICS.—The following formulæ may be found serviceable as local anæsthetics for small operations :

R.	Chloral hydrat., gum camphor.....aa	ʒ ij.
	Morphiæ sulph.....	ʒ ss.
	Chloroform.....	ʒ j.

M. This may be painted with a camel's hair brush over the area to be incised; allowed to dry, and repeated as often as necessary to render the part insensible. Prof. Rudier proposes the following:

R.	Etheris aut chloroform.....	ʒ ij.
	Camphor.....	ʒ i.

M. Apply with a brush.

R.	Acidi acetici (cryst.) one part.
	Chloroform 20 parts.

Solve. Apply with a brush.—*Med. News*.

A THREE-BARRELED PENIS.—Dr. Luxardo describes a rare anomaly of the penis in a young man under treatment for gonorrhœa. The meatus presented three openings, which corresponded to as many distinct canals. The upper one gave passage exclusively to the seminal fluid, the lower to urine. The middle tube appeared to communicate with the lower one. The gonorrhœa affected only the two inferior ones.—*L'Union Medical*.

RULES FOR EXAMINATION OF URINE.—During a private lecture on the pathology of renal diseases, Dr. Formad gave the following practical points as “rules for examination of the urine.”

1. Sediment in the urine has no significance unless deposited within twenty-four hours.
2. Albumen in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright’s disease—contracted kidney—has little or no albumen.
3. Every white crystal in urine, regardless of shape, is a phosphate, except the oxalate of lime, which has its own peculiar form, urine alkaline.
4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.
5. Mucus, casts, pus, and epithelium signify disease of the bladder (cystitis) or of other parts of the urinary tract, as determined by variety of epithelium.
6. The urine from females can often be differentiated from the urine of the male, by finding in it the tessellated epithelium of the vagina.
7. Hyaline casts (narrow), blood, and epithelial casts signify acute catarrhal nephritis. Much albumen.
8. Broad hyaline casts and epithelial dark granular and oil casts signify chronic catarrhal nephritis. At first, albumen; later, less.
9. Hyaline and pale granular casts and little or no albumen signify interstitial nephritis.
10. Broader casts are worse than narrow casts, as far as diagnosis is concerned, for the former signify a chronic disease.
11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts or devour them entirely in a short time.
12. Uric acid in the urine may in Trommer’s test for sugar form a protoxide of copper, thus often deceiving the examiner in the belief that he has discovered sugar. Thus, when urine shows only a trace of sugar, other methods of examination, besides the Trommer’s, must be used—preferably the lead test.
13. The microscope gives us better ideas of the exact condition of affairs in the examination of urine than the various chemical tests. Therefore, the time has come when every true physician should know how to handle a microscope.—*Louisville Medical News.*

NERVE-STRETCHING.—In the Bradshaw Lecture, published in a recent number, Mr. Marshall has shown himself to be a strong advocate of the new operation of nerve-stretching for the relief and cure of pain. British surgeons are ever cautious about introducing novel operations, especially those which, like nerve-stretching, are largely based upon theoretical grounds. In February 1881, we recorded a case where Mr. Marshall stretched the great sciatic nerve on the right side in a man suffering from locomotor ataxy. Nearly three years have passed by, and nerve-stretching still has the high sanction of the present President of the Royal College of Surgeons of England. The risk attending an operation is the first question discussed by competent critics; Mr. Marshall believes that the dangers of nerve-stretching are comparatively few. The lecture included a very able review of the scientific aspect of the subject. It was shown that a long piece of nerve will stretch more, relatively, than a short one, according to a law observed in other extensile tissues. A stretched nerve is now known to recoil, and the extensibility of a living nerve is greater than that of a dead nerve, a fact ever to be borne in mind by experimenters. Nerves bear a far greater amount of stretching than would at first sight be supposed; the slender branches of the fifth cerebral nerve will bear a weight of from six to twelve pounds before breaking, whilst the great sciatic will bear about one hundred and eighty pounds—

though the lecturer did not recommend that a force at all approaching this should be employed in practice. These facts have a highly practical bearing, as an operator, especially if inexperienced, has a natural dread of breaking a nerve which he is stretching, and, therefore, is liable to confine himself to subjecting the nerve to a degree of tension insufficient to produce good results, and, indeed, capable of causing evil effects. A diseased nerve, he is aware, bears less stretching than a healthy one. But, as Mr. Marshall demonstrated, a personal experiment with the dynamometer is sufficient to show any operator how difficult it is to apply to a nerve a weight of thirty pounds.

The lecturer dwelt also on the microscopic appearances of stretched nerves. In specimens prepared by Mr. Horsley, the fibres of the nerve-sheath or epineurium, naturally wavy, appear quite straight, the bundles of tubules are compressed, and the spaces, probably lymphatic, between the perineurium and the fasciculi which it invests, are obliterated. On examining an individual tubule from a stretched nerve, it is found that the natural segmentation of the medullary sheath gives way to an abnormal or irregular breaking up of that sheath, that sometimes the tubule gives way, and more rarely the axis-cylinder gives way. Degenerative changes follow, and involve the vessels and lymphatic elements in the nerve, external to its tubules. Regeneration ensues. Passing to the physiological effects of stretching, it is found that the motor and sensory properties of a nerve are both diminished, but the sensory is the most affected. Slight tension increases the irritability of a nerve, stronger tension diminishes and extinguishes it, a fact of great practical import. The stretching of a nerve is not mechanically transmitted to the spinal cord; it may, in a manner explained by the lecturer, shake the cord, but even then no change of tension is found in the intrameningeal part of the nerve, nor any in the tubules within the cord.

Turning to practical results, Mr. Marshall considered that the fact cannot be doubted that nerve-stretching does and will cure neuralgia. The explanation of this good result lies, to a certain extent, according to the lecturer, in the stretching and partial destruction of the *nervi nervorum* in the sheath of a nerve. Mr. Marshall is a believer in the existence of these nerves that supply nerves. They are liable to irritation at certain points where the nerve to which they are distributed passes round a bone or out of an osseous foramen; hence some of the phenomena of neuralgia may be explained, for, were the tubules of the main nerve the seat of that disease, the pain would hardly be so localised, but would be transferred by the consciousness to the extremities of the tubules. The value of nerve-stretching in tabes is less easy to comprehend. The disease is central, and, as experiments above alluded to have shown, the substance of the spinal cord is not affected mechanically by the tension but it effects the ganglia of the cord, and produces an excitation of the vaso-motor centres, or trophic centres; and to the reaction that takes place in the changes thus produced in the nerve elements, we must look for the explanation of the benefit obtained from nerve-stretching in cases of tabes or locomotor ataxy.

Mr. Marshall, towards the conclusion of his lecture, spoke of the stretching of nerves by flexion of a limb without the use of the knife, as advocated by Trombetta and Billroth. The actual stretching in these cases has been proved by experiment, and very satisfactory results have been obtained.

The Bradshaw Lecture at the Royal College of Surgeons of England, in 1883, is not only an eloquent discourse, but a most valuable essay wherein an operation still new to surgery has received the approval, on grounds publicly demonstrated, of a leading metropolitan surgeon.—*British Medical Journal*.

DR. A. VAN CERVEER, in the *American Journal of Obstetrics*, reports a case of menstruation beginning at the age of four months, and regularly continuing every twenty-eight days until the present time, more than two years.

THE PREVENTION OF HORSE ACCIDENTS.—Mr. C. C. Baird, of the Dick Veterinary College, Edinburgh, has invented an india-rubber frog-pad for fitting into the heels of the shoes of horses, with the view of preventing the animals from slipping and falling on the causeway. The invention is exceedingly simple, and will be of great value to medical men and others who drive horses, especially on asphalt and in frosty weather. The pad can be removed in the evening and replaced in the morning. A set of pads, it may be added, is expected to wear out two sets of shoes. The trial of the invention, we believe, has fully borne out the statements of the inventor as to the merits of the apparatus.—*Medical Press*:

A LEATHER pad, considered superior to the rubber article, is coming into use in Louisville.—*Louisville Medical News*.

DR. BARKER, of New York, believes (*Am. Jour. Obstet.*, October, 1883) that mechanical obstruction as a cause of dysmenorrhœa exists in only a small percentage of cases; that there are two forms of the diseases, one uterine and the other ovarian. In the uterine variety there are cases which do not depend at all upon obstruction, the pain is due to the effort of the uterus to relieve the plethora by the rupture of capillaries and exfoliations of mucous membrane. He uses the lactate of iron in doses of from three to five grains three times a day, associated with chlorate of potash; as soon as the symptoms of menstruation begin he gives apiol, which he looks upon almost in the light of a specific. In ovarian dysmenorrhœa there is no pain until the flow has continued for two or three days; then the cause was ovarian and the bromide of sodium in ten to fifteen grain doses, in the middle of the forenoon, in the middle of the afternoon, and at bed time, was the proper treatment.

TEARS OF BLOOD.—This rare phenomenon, the reality of which has often been doubted, seems, however, to occur under certain circumstances. Damalix has published an interesting paper on this subject in the *Archives d'Ophthalmologie*. He was led to study it by the observation of a case in M. Pana's wards. The patient, a young hysterical girl, said that she had often noticed a flow of blood from her eyes, and spots of blood on her handkerchief after wiping them. For some time the hæmorrhage occurred every night. A careful examination of the eyes showed nothing abnormal, but there were photophobia, facial neuralgia and considerable blepharospasm. This case, as M. Damalix himself says, cannot be considered as conclusive, in spite of the probable veracity of the girl and her parents, as the hæmorrhage was never seen by him. But there are on record some observations which do not leave room for doubt. In a case of Hauser and in another of M. Brun, the observer could actually see the blood flowing from the eyes like tears; there was no possibility of trickery, and microscopical examination of the fluid showed that it was really blood. As for the diagnosis, the name blood tears must not be applied to the various forms or hæmorrhage caused by some organic lesion of the mucous membrane, such as small polypi, etc. The true form has nothing to do with any visible lesion, and the course of the accidents is remarkably irregular. Sometimes there are no premonitory signs, the blood appearing without effort or pain; in other cases the patient feels for some time pain in the forehead, or at the root of the nose, or, it may be, a feeling of tickling and heat in the lids, which disappears when the blood begins to flow. The amount of blood lost varies from a few drops to a wineglassful; the flow never lasts more than a few minutes, is always intermittent, and generally coincides with other hæmorrhages in the skin or mucous membranes, or, on the contrary, with *suppressio mensium*. A study of the etiology of the disease shows that it is most frequent in hysterical women suffering from anæmia or hæmophilia.

THE LATE DR. MARION SIMS.—At the meeting of the New York Academy of Medicine, on November 15th, Dr. F. V. White, the statistical secretary, announced the death of Dr. J. Marion Sims, for many years an honored Fellow of the Academy. The President, Dr. Fordyce Barker, said that, by the death of Dr. Marion Sims, the Academy of Medicine and the profession of New York, and, indeed, of the whole country, had lost its most brilliant and original genius in the department of surgical gynecology. If circumstances had forced him into other branches of surgery, his promptness and fertility in practical procedure, his intuitive power of conception of new means to secure any desired result, his endowment of invention, and his wonderful mechanical adroitness, would undoubtedly have secured for him equal eminence in any of its departments. No one, he thought, could be compared to him in his own special field except the late Sir James Y. Simpson, whom, indeed, he closely resembled in many respects. The resemblances of these two great men were much more numerous and striking than their points of contrast. To speak of the greatest achievements of each—the one had won for himself imperishable fame by his courage and ardent zeal, carried almost to rashness, in successfully introducing the use of anæsthetics for the relief of the agonies of parturition, and the other by devising new methods of physical exploration, and new surgical procedures. Both men were incessant, zealous workers, who, for many years, were constantly making contributions of positive worth to the store of knowledge of the profession. The former added more to scientific literature, and the latter more to the practice of his art. In concluding, Dr. Barker announced that he would appoint Dr. Thomas Addis Emmet to read a memoir of Dr. Sims at the first meeting of the Academy in January.

TOBACCO AND THE PULSE.—Dr. Troitski has made a number of observations upon the effects produced on the temperature and pulse by smoking. He found that in every case, varying according to the condition of the individual, there was an acceleration of the pulse rate and a slight elevation of temperature. If the average temperature of non-smokers were represented by 1,000, that of moderate smokers would be 1,008; and while the heart in the former case was making 1,000 pulsations, in the latter it would beat 1,180 times. It is in the latter effect that he thinks the danger of tobacco smoking is manifested.—*Journal de Médecine de Bruxelles.*

HOW DIMPLES ARE MADE.—This is the way dimples are manufactured in Chicago, if a reporter of the *Herald* of that city tells the truth:

“My arm being bare and the exact spot indicated, he (the operator) placed a small glass tube, the orifice of which was extremely small, upon the spot. This tube had working within it a piston, and was so small that when the handle was drawn up the air was exhausted from the tube and it adhered to the flesh, raising a slight protuberance. Around this raised portion the operator daintily tied a bit of scarlet silk, and then took away his suction machine. The little point of skin that was thus raised he sliced off with a wicked-looking knife, bringing the blood. I tried hard not to scream, but it was so unexpected that I had to. Then he bound up the arm, placing over the wound a small silver object like an inverted cone, the point of which was rounded and polished. This little point was adjusted so as to depress the exact centre of the cut. Then he told me to go away and not touch the spot until the next day. When I came at that time he dressed my arm again, and this operation was repeated for five days, when the wound was healed. The silver cone was removed, and there, sure enough, beneath it was the prettiest dimple in the world! And all I had to pay was \$10.”

CURING AN EPILEPTIC FIT BY USING A STOMACH PUMP.—A Polish Jew fell unconscious at the Bowery and Grand street December 27th, and a crowd of pedestrians stopped to gaze upon him as he lay writhing and foaming at the mouth on the icy sidewalk. Patrolmen of the Tenth Precinct, with the assistance of some of the bystanders, took the insensible man to the Eldridge street station. While he was being dragged across the floor a vial containing a greasy fluid, and bearing the label "poison," fell out of his pocket. Sergt. Granger, who was in command at the station, at once jumped to the conclusion that the man had attempted suicide by taking poison. He telegraphed to Police Headquarters for "an ambulance and a stomach pump." This urgent message was repeated to the Chambers street Hospital, and an ambulance was soon at hand. The young surgeon who accompanied the ambulance looked at the unconscious man, shook his head at the contents of the vial, and apparently coincided with the diagnosis of the police sergeant. He administered an emetic, but as this did not have the desired effect the young doctor rigged up his stomach pump. He was soon actively pumping out the contents of the unconscious man's stomach. Inspector Murray and Sergt. Meakim, of his staff, strolled into the station and were interested spectators of the pumping process.

The heroic treatment had the effect of bringing the man to his senses. He proved to be Aaron Eckstein, a "goose merchant," of No. 37½ Essex street. He protested indignantly in very bad English against the treatment which he had received. The young doctor asked him blandly what poison he had taken. Eckstein fairly danced with rage. "Pison! pison!" he shouted; "I dond dake no pison! Fits! it's fits!" The young doctor shook the poison-labeled vial in his face, and Eckstein smiled sardonically. "Dot's not pison, dot's liniment," and he rubbed his left shoulder with his right hand. It appears that the unfortunate "goose" merchant is subject to attacks of epilepsy, and it was in one of these that he was found in the Bowery. The previous day he had fallen in a fit in the street and hurt his shoulder, and the liniment had been given at the Chambers street Hospital. When the youthful ambulance surgeon realized his mistake, he packed up his stomach pump and left the station hastily.—*Times*.

RESECTION OF THE STOMACH.—At the Medical Congress of Olten, Professors Kocher of Berne and Sockin of Bâle presented a report of cases of cancer of the pylorus treated by resection of the stomach. Thirty cases of resection of the stomach have been reported in Germany alone; of these ten have ended in recovery. In twenty-six of the cases there was cancer, and in four ulcer of the stomach; three of the latter made a rapid recovery; seven only of the cancer cases recovered. In two of the latest cases occurring in women forty years of age, the digestive functions were completely re-established.

NEW METHOD OF TOOTH DRAWING.—A dentist of Geneva has invented a new and ingenious process of tooth-drawing. A small square of india-rubber, pierced with a central hole, is pushed over the tooth till the upper part of the root is reached. The India-rubber gradually contracts, pulls on the root, and the offending tooth is finally enucleated, without causing the patient any pain whatever. Four or five days are generally required to complete the operation. Very slight bleeding and a slight swelling of the gum are the only inconveniences experienced. M. Paul Bert brought this ingenious method before the Académie des Science in Paris, when M. Galippe remarked that the process was already known, and quoted a case in support of its efficacy, in which a young girl placed a ring of india-rubber round her two front incisors, and forgot she had done so; the result being that she lost the teeth.



ACUTE INTUSSUSCEPTION SUCCESSFULLY TREATED BY INJECTION OF AIR AND INVERSION.—A little girl, between three and four years old, had been ill for about forty-eight hours with vomiting and diarrhoea. On visiting the patient, she was found to be very pale and prostrated. Her symptoms had come on suddenly, and consisted of constant vomiting, so that no nourishment could be kept on the stomach. She had tenesmus, accompanied by continuous discharge of bloody mucus; and no stool had been passed since the commencement of the illness. Examination of the abdomen revealed no tumor; but, on introducing the finger into the rectum, the usual sausage-shaped tumor was most distinctly felt.

Having nothing at hand but a Higginson's syringe, I attempted to inflate the bowel with this, but did not meet with much success, as the air kept escaping. I therefore suddenly raised the child by the heels, and kept her inverted for a moment. Examination per rectum immediately afterwards could detect nothing abnormal, the previous tumor having disappeared.

The next day, on calling, the mother informed me that the child had been quite well ever since I left; had eaten and retained the food; and that all the symptoms had been in abeyance ever since what she called "the operation." The child is now quite well, some months after the illness recorded above.

The diagnosis is made quite certain by the peculiar grouping of the symptoms. The sudden onset, tenesmus with bloody mucus, vomiting, no passage of stool, the general state of prostration, the discovery of a tumor per rectum, the sudden and entire disappearance of urgent symptoms, and complete cure after insufflation and inversion, point conclusively to intussusception as the cause.

M. G. BIGGS, London.

DISINFECTION BY CORROSIVE SUBLIMATE.—Dr. Tarnier, Surgeon to the Paris Maternité, has the greatest confidence in Van Sweiten's liquid, employed as an obstetric antiseptic. The midwives and pupils all wash their hands in this liquid, and the whole of the genital region of the patient is washed and injected with a solution of corrosive sublimate at a strength of two-thousandths. Prior to delivery the injection is renewed every three hours, and no accidents from its employment have ever occurred.

Dr. Tarnier proposes the disinfection of napkins and mattresses by the same means.—*Times and Gazette*.

A DEATH from "soothing syrup" having occurred in Brooklyn, the coroner's jury have very sensibly recommended the passage of a law by the Legislature forbidding the sale of such preparations except on physician's prescriptions.

ALTERATION IN FLOUR THROUGH THE ACTION OF THE SUN.—It frequently happens that wheat or rye flour, in spite of the greatest care in baking, yields an inferior loaf, and the failure is commonly attributed to adulteration; but when submitted to investigation neither microscopic nor chemical tests reveal any adulteration. Such flour is returned to the miller or dealer as unfit for use. The miller says the flour was injured by the heating of the stones, and the dealer attributes the defect to the circumstance that the sun must have shone upon the sacks during transportation. It has been proved by numerous experiments that flour cannot bear the action of the sun, even when not exposed directly to its rays. When flour is exposed to the heat of the sun an alteration takes place in the gluten similar to that produced by the heating of the stones. For this reason it is advisable that the transportation of flour should take place, if possible, on cool days or by night, as well as that flour should be stored in a cool place.

HUXLEY'S EXPERIENCE AS A PHYSICIAN.—“Some forty years ago I was very familiar with certain portions of the East End—one of those waterside portions where you find all the peculiar conditions of the East End in their typical state. I was at that time engaged in the business of my original profession of medicine, and it was my duty to attend the poor of the parish in that particular region. I therefore became familiar with their lives in a manner which is rarely possible to any but the clergyman and the doctor. I remember as if it were yesterday the condition in which a great portion of those people lived, and it was such that I found in those recent statements which have been brought before you nothing specially novel and nothing unfamiliar. A great majority of the persons who used to come to me complaining of this and that were simply undergoing slow starvation, mitigated by bread and the stuff to which they gave the name of tea. I remember as if it were yesterday a poor deformed creature who was earning her living by making shirts, who came to me with those complaints—illness and weakness, and all the rest of it—and to whom I said, what was quite true, ‘You want nothing but food.’ I recollect the woman throwing out her hands and showing a few half-pence, hardly sufficient to cover her palms, and exclaiming, ‘If that be so, how am I to get food?’ I have spent hours in a den in which there was scarcely room to turn, attending to the sufferings of a woman who was about to add to a numerous family, the ordinary resting-place of whom was underneath the bed. . . . I left that scene to my great satisfaction, and sometime after embarked on a voyage around the world, where I had an opportunity of seeing savage life in all conceivable conditions of savage degradation, and I can assure you in this experience of mine I found nothing worse, nothing more degrading, nothing so hopeless, nothing nearly so intolerably dull and miserable as the life I had left behind in the East End of London. For although the savage may perish of hunger or violence, and never knows whether his life may be his own twenty-four hours, yet there is life in him, he is a man, he is not a mere machine ground down to bring out so much mechanical energy at the expense of so much food; and I must certainly say that if the alternative were presented to me to choose between the life of one of those people in the East End or that of the savage, I would distinctly choose the latter.

DR. H. C. WOOD'S SYPHILITIC TEST.—Persons are often unaware that they are suffering from syphilis. They honestly believe that they never had primary or secondary symptoms; these symptoms may, however, have been present, but so slightly marked as not to attract attention. Again, this is one of the points about which human nature often fails. People, even when death is staring them in the face, and their lives hang upon the truth, will make false statements. As we have a touchstone by means of which we are able to decide whether or not a patient is suffering from cerebral syphilis, I ask no questions, but apply the test where I have reason to suspect any disorder. It is a serious matter to mercurialize a patient, but it does no harm to produce iodism, so that when making the test I always employ iodide of potassium. If I find that ten grains three times a day produces symptoms of iodism I am almost sure that the case is not one of specific disease. If, on the other hand, the patient takes from one-half to one drachm of iodide of potassium and waxes fat thereon, I am almost sure that he is the subject of specific disease. There are some persons, not syphilitic, who will stand large doses of iodide of potassium, but such cases are rare, so that when a patient will take half a drachm of the remedy three or four times a day it may be concluded that he is syphilitic. I say this with one reservation. Persons who have gradually accustomed themselves to the use of iodide of potassium, as for instance, those who are asthmatic, will stand large doses of this drug, even when not suffering from syphilis.

In such a case there will be the history of the long-continued use of the remedy. You must remember, also, that there is a syphilitic asthma, so that the relations of iodide of potassium to asthma are in many cases easily explainable. I shall speak of the method of using iodide of potassium when I come to consider the treatment.

TYNDALL ON EVOLUTION.—Professor Tyndall says on this subject: “If asked whether science has solved, or is in our day likely to solve, the problem of the universe, I must shake my head in doubt. Behind, above, and around us, the real mystery of the universe lies unsolved, and, as far as we are concerned, is incapable of solution. The problem of the connection of the body and the soul is as insoluble in its modern form as it was in the pre-scientific ages. There ought to be a clear distinction made between science in the state of hypothesis and science in the state of fact, and, inasmuch as it is still in its hypothetical stage, the ban of exclusion ought to fall upon the theory of evolution.”

THE NEZ PERCES ON THE INDIAN RESERVATION BEING DESTROYED BY MALARIA.—Dr. Woodward, an intelligent young physician employed by the Government, resides among them, and divides his time between them and the Poncas. He has charge of the commissariat and a general oversight of affairs. I said to him: “Do you know anything against these Indians?” He replied: “I do not. They are the best Indians I ever met.” “How many tribes have you known?” “I have known four pretty intimately.” “How do these compare with the rest?” “They are far above them in every way.” “Do you regard them as a virtuous tribe?” “Yes, sir.” “How many half-breeds are there among them?” “Only two.” “Have you ever known of their stealing anything?” “Never. I have known them two years, and have not known a single instance of theft. We never lock our commissariat for fear that they will steal.” “Are they law-abiding?” “Yes, sir. There has not been a crime committed since I have been here.” “What about their family relations?” “They are strongly attached to each other, and passionately fond of their children.” “Are there any polygamists among them?” “Not more than three or four, and they are of the wild Indians.” “What are the prevailing vices among them?” “That’s a hard question. They don’t drink. They don’t gamble, steal, or dance. I do not know that they have a single vice.” “Doctor, what are their prevailing diseases?” “Malaria, pneumomia, and consumption. Last year I gave them over a hundred ounces of quinine.” “Are their children healthy?” “No sir; there are but three young children among them.” “How do you account for the fact that out of 100 families but three small children are living?” “On account of the change in the climate. These are mountain Indians, and cannot live here. With but three exceptions no children that have been born to them here have reached the age of three years.” “If they are not removed to a more healthful region what is your opinion as to the result?” “Their fate is inevitable. They are doomed. They must dwindle down and become extinct, and this is not only true of them, but it is true of other Indians. Look at the Pawnees. When they came here in 1875 they numbered 2,630; they now number 1,219. The Nez Perces came three or four years ago, numbering 430; they now number 320. I came here in 1881 from Nebraska, and we brought 100 head of horses. In four months 36 of them died. I take my quinine almost as regularly as I take my meals.”

LUMINOUS paint has been applied to harness with desirable results. At night the position of the horse is clearly indicated, and it does not appear that the animal is alarmed in the slightest by his bright equipment.

THE ELECTRICAL TREATMENT OF EXTRA-UTERINE PREGNANCY.—The *New York Med. Jour.*, March 10th, 1883, says: We recently commented upon a paper by Dr. A. D. Rockwell, on "The Successful Treatment of Extra-Uterine Pregnancy." We would now call attention again to that one of the author's seven cases which was one of associated intra-uterine and extra-uterine gestation. This, it would seem, is an exceedingly rare complication; for, according to Dr. B. B. Browne, of Baltimore, whose researches into the literature of the subject appeared in the last issue of the "Gynæcological Transactions," but twenty-four reported cases could be found. In one of these cases, the extra-uterine foetus passed down upon the posterior fornix, and was removed through the vagina. This was followed by the birth of the intra-uterine child alive, and the recovery of the mother. In three other cases laparotomy was performed, with fatal results to the mother in all. Of the twenty remaining patients who were left to nature, eleven died, while none recovered by the discharge of the foetal remains through the process of ulceration. But, of the whole number, the child survived in seven cases.

THE weight of Turgenieff's brain has led in Russia to an active discussion of the general subject of brain weights. M. Nikifaroff, a well-known scientist, in a recent article declares that the weight of the brain has no influence whatever on the mental faculties. He gives the average weight of a man's brain as 1,424 grammes, and that of a woman's as 1,272, though the averages given by Krause are 1,570 and 1,350, respectively. The maximum weight Nikifaroff gives as 1,600 grammes, the minimum as 800. The brain of Haussmann, the celebrated mineralogist, weighed only 1,206 grammes, or considerably less than the average weight of a woman's brain.

JUDICIAL HANGING IN INDIA.—Mr. Shirley Deakin, F.R.C.S., Superintendent of the District Gaol, Allahabad, sends us notes on fourteen cases of judicial hanging. From his report, which is drawn up with great care, we gather that the last behest of the law is carried out in strict conformity with the regulations that the culprit "shall hang by his neck till he be dead," for in not a single instance were the vertebræ fractured or dislocated, nor was the spinal cord injured. The length of drop allowed is about six feet, and this Mr. Deakin thinks amply sufficient. In the first execution that he witnessed, the noose of the rope was placed in the middle line in front, and the struggling of the criminal was violent and painful to witness. In the subsequent cases he had the knot placed at the side of the neck, with the object of compressing the vagus nerve and so inhibiting the cardiac and respiratory functions. The result, he tells us, was quite satisfactory. As a rule, the epiglottis is torn or the hyoid bone or laryngeal cartilages fractured; once the trachea was completely ruptured. The inner coat of the carotid artery was abraded in two cases. It is customary in India to use a silken rope, which costs about £7, and to grease it each time it is called into requisition. The gallows, as Mr. Deakin found it, was of primitive construction, consisting of four upright posts, ten feet high, with a platform resting upon the top. This was reached by a ladder, which the doomed man had to climb. The drop was effected by pulling away the two front posts. Mr. Deakin modified the apparatus by placing a trap door in the centre of the platform, so that when the bolt is withdrawn the door swings down on its hinges and hides the victim from view. Mr. Deakin relates a case in which the long drop was employed; the structures of the neck gave way and the head was torn from the body, a casualty not unknown to home experience. Our correspondent deprecates the practice of judicial hanging, believing it fails to act as a deterrent from crime; at any rate, in the colored races, who meet their fate with calm indifference.—*Lancet*.

## MEDICAL NEWS.

COMPULSORY EXAMINATION OF A FEMALE PLAINTIFF IN AN ACCIDENT CASE.—A case in this State was recently commented on where the Court refused to order a compulsory examination of a female plaintiff in an accident case, to see whether she had not some other ailment besides the hurt caused by the accident. A case involving the right of the Court to order a medical examination is presented in one of the Western States, but under circumstances entirely different from that mentioned above. In this latter case there was a permanent injury to the eyes, and no medical examination had been had at any time, and the Court held that it had the right to order such examination.—*Record*.

DR. T. HAYNES removes parts of the spermatic ducts in place of the testicles, in cases of hopeless masturbation and nocturnal emissions, effectually destroying the sexual desire(?)—*Boston Med. and Surg. Journal*.

THE British Medical Association will hold its next annual meeting in Belfast, Ireland.

THE library of the Surgeon-General's office in Washington is said to be more extensive than the best libraries in England and France, and superior in the general character of the books.

THE HOSPITAL SATURDAY AND SUNDAY FUND.—One hundred and seventy-five of the 340 churches in the association have been heard from, and at that time the total received amounted to \$42,000. The account will be kept open until February 1.

THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS.—According to a newspaper dispatch, eight of the professors and all the students have withdrawn from the college, the trouble being attributed to financial mismanagement.

AT a late meeting of the Medico-Chirurgical Society of Edinburgh, Dr. W. Craig presented a collection of new and rare drugs from the laboratory of Parke, Davis & Co. The collection contained twenty-eight specimens of drugs. They were exhibited in the most attractive form, and commanded the attention of all interested in new preparations. The exhibitions of the same firm at Vienna were rewarded by the greatest interest on the part of those best able to judge of such things.

IT seems that doctors are not admitted to laboring men's unions, for the reason as a laboring man lately stated to the Blair committee, that they are "too previous."—*New York Medical Journal*.

A SUIT TO ANNUL THE CHARTER OF THE ECLECTIC MEDICAL COLLEGE.—At the instigation of the Medical Society of the County of New York, Attorney-General Russell has begun in the Supreme Court, in the name of the people of the State, a suit for the annulment of the charter of the Eclectic Medical College of the City of New York. It is alleged that the officers of the college have persistently disregarded the restrictions of its charter respecting the issuance of diplomas, and by improperly licensing unqualified persons to act as physicians, have done injury to the public.

PARKS.—New York has at present but 1 acre to every 1,363 inhabitants, while London has 1 to every 205 inhabitants, Paris 1 to 13, Vienna 1 to 100, Berlin 1 to 235, Philadelphia 1 to 300, Chicago 1 to 200, St. Louis 1 to 167, and Boston 1 to 190.

ST. LOUIS, Mo., Medical College is "in a bad way." The faculty consists of three doctors, and the class of five students. It owes \$7,000, and its receipts are at an end.

THE Cartwright lectures for 1884 will be delivered by Professor Burt G Wilder, M.D., of Cornell University, at the hall of the Young Men's Christian Association, corner of Twenty-third street and Fourth avenue, on the evenings of February 2, 4, and 6, 1884. The general subject will be "Methods of Studying the Brain."

THE Governor of Texas has, in a message to the Legislature, advised that vaccination be made compulsory in the State.

DIED, at Alexandria, on January 20, 1884, M. M. Lewis, a prominent physician of that place, and well known for valuable services rendered in the Confederate army.

A MALICIOUS suit was lately brought against Dr. David Webster by one Dr. Robert H. Hayes, the action being for alleged malicious prosecution and false imprisonment, Dr. Webster having prosecuted Hayes for practicing medicine without compliance with the provisions of the law. Hayes sued for damages in the sum of \$50,000. The defense was that the defendant acted as president of the Medical Society of the County of New York in the matter, and that the result of the action brought by the society was only to compel Hayes to comply with the law. Judge Freeman directed the jury to find for the defendant, and such was the verdict.

MARRIED, on December 12, 1883, by the Rev. Dr. Petrie, Dr. William H. Shackford, of Virginia, to Miss Collie E. McLelland, of Montgomery, Ala.

DR. J. MCF. GASTON, whose excellent and instructive papers, from Brazil, gave so much pleasure, has returned to his "country" again; not to the Palmetto State, but to the one adjoining. His address is now 28½ Broad street, Atlanta, Ga. It is very probable that he will give to the American public, through this JOURNAL, his reminiscences of Brazil, and take the opportunity, while so doing, of presenting much of the valuable results of his varied experience in his recent home.

AT the last quarterly meeting of the Illinois State Board of Health it was decided not to recognize diplomas of the United States Medical College in the future.

THE New York Post-Graduate Medical School has taken a building in East Twentieth street, between Second and Third avenues, four stories in height, and having ninety-five feet frontage, into which it moved about the first of February. This will give ample room for the present work of the school, as well as for a hospital department, which is to be established. Bedside instruction will then be given under the same roof with the regular courses. This school is doing admirably.

NEW TREATMENT.—Doctors are always ready to hear of new remedies and new prescriptions. A Mr. McGregor of this State has discovered an infallible prescription for that dire malady in a wife, constant scolding. His prescription is a rat. He procures a cage full of them, and as soon as he wishes to cure an attack of scolding, he opens the cage and gives his prescription. If one is not sufficient he repeats it. The worst attack is cured by the above prescription.

SENATOR HALE introduced in the Senate in January a bill "to secure to the medical profession equal rights in the service of the United States," which provides that all appointments to medical service under the Government shall be made from graduates of legally chartered medical institutions, without discrimination in favor of or against any school or theory of medical practice.

DR. WILLIAM BRODIE, of the *Therapeutic Gazette*, Detroit, Michigan, has been appointed surgeon-in-chief of all the Grand Trunk Railroad lines west of the Detroit River. A good salary is attached to the office. It is a good appointment, and a decided honor conferred upon one most worthy of it.

THE *Therapeutic Gazette*, of Detroit, Michigan, Dr. W. Brodie, editor, is again enlarged. It is beautifully issued, admirably edited, and has most probably the largest circulation of any medical journal now known. It is published for the marvelously low price of one dollar. It is an admirable journal.

DIED, at Albany, N. Y., January 31, Dr. Elisha Harris, Secretary of the State Board of Health.

MARRIED, on January 31, in this city, by the Rev. George W. Douglas, Dr. B. F. Dawson to Julia Douglas, daughter of the late George Merritt.

THE *Medical Gazette*, a weekly of this city, is discontinued, and the *Æsculapian*, a monthly, takes its place, or may do so.

THE *Medical Archives* of this city is not extinct, but will be continued.

THE *Archives of Laryngology* will be discontinued.

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## EDITORIALS.

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WHAT IS WANTED IN A JOURNAL.—One who has had every number of this JOURNAL since January, 1866, visited this office during the past month, and, after the many greetings of an old and valued friend, the subject which forms the caption of this notice was brought up for discussion. He said that he was one of the only two subscribers to the JOURNAL in his county, and that he so much regretted the fact. He was asked what journal seemed to be the favorite in his section; one of the best in the Old Dominion? He replied that he was almost unwilling to say as he was ashamed of the fact. However, after due persuasion, he confessed the truth, and replied that the journal most "taken" in his section was the *St. Louis Brief*. He was mortified over the humiliating fact for his county, and his listener was even more mortified for the sake of his profession in one of the grandest and greatest of the old States. The Old

Dominion giving in one of its best counties its greatest support to such a publication!! The friend and visitor endeavored to explain that he had tried to shame his medical neighbors into relinquishing their support of what he termed the Peter Parley of medical journals—the journal best adapted, if not to the babes and sucklings of the medical world, at least to the veriest children in medicine. And then there was long and due silence after this confession—a silence that was natural; the tribute to a great old State; the lament over her misfortune, and her lapse from her former great estate in medicine.

The *St. Louis Brief* the great favorite in Virginia! “Tell it not in Gath,” even though some may not be ashamed to “proclaim it in the streets of Askalon!”

And then there came up the question, the very natural question, What is desired in a journal?

The visitor said that articles by classic writers in this country and in Europe were, by many of his friends, regarded as too “high,” too elaborate, and too long. Such articles, any one of which he regarded as worth the annual price of a journal’s subscription, were rejected and repudiated; while little paragraphs as to what is “good” for familiar diseases were devoured and remembered. It was mutually conceded, in the interview, that, of course, nothing worth learning could be conveyed in a paragraph, and that elaboration was essential to a demonstration of all truth; and it was also mutually admitted that it was only the worthless writers who were weak enough to suppose that any subject could be presented in a few paragraphs. Still, it was undeniable that such writers (the paragraph idiots) were the most popular, and that they were admired, while the great writers were shunned by many of the rank and file of the profession. It was also granted that such facts were not peculiar to the Old Dominion, but that such an unfortunate condition, such a malady indeed, is widespread throughout the ranks of the American profession. If this then be so, what, as was argued, was the cause? Does the reader anticipate the natural deduction, the conclusion reached at the close of this casual meeting? Doubtless. It was, that so long as the medical colleges, endowed and unendowed, are so prolific in their broods of half-taught graduates annually thrust upon the States, it was impossible to find among the younger physicians more than a very few who desire, in medical literature, elaborate expositions of scientific truth; while the mass of younger readers must be of such professional calibre, as to find enjoyment in the lucubrations of paragraph idiots, and in the prescriptions given so profusely in that class of periodicals of which the visitor had mentioned the type.

The application of these facts to the management of this JOURNAL is, of course, very natural and proper. During the past year many, very many classic papers from justly distinguished writers have been given. Were they too long, too many? Or would it have been better to give prescriptions and paragraphs?

There is a vast deal of folly spoken and written in regard to what are termed “long-winded” articles, but is there any one but a fool who would undertake to present a subject intelligibly unless with care and elaboration? And is there any one but a fool who could expect that such an act could be performed? Lord Bacon has well said that the wise man is “he who knows something about everything and everything about something.” It is true that one may learn something about everything in paragraph journals, but a little learning, dangerous to every one, is particularly dangerous to the physician; and if he wishes to know everything about anything this is only possible by studying it carefully and at length. To do this, to enable any one to do it, he must have material presented by masters. Articles, classic in diction and in discussion, by those who are acknowledged teachers; papers which give value and reputation to medical science and to medical men, and which form, in part, the glory and ornament of medical literature.



THE LONGEVITY OF DOCTORS.—Judging from the great age of the survivors of the battle of Waterloo, participation in that battle was the surest means of longevity which an Englishman of that day could take. Of course this resource is no longer open to persons desiring to live beyond three-score years and ten, but such persons can accomplish nearly as much by becoming doctors. Twenty-six eminent physicians and surgeons have died in England during the last four years, all of whom were over 80 years of age, and nine of whom were over 90. The two who had attained the greatest age died at 95, and began their profession as army surgeons. These two may possibly have laid the foundation of their longevity at the battle of Waterloo, but, however this may be, the fact that medical men live to a great age is sufficiently established.

The popular idea of a doctor's life is that he is exposed to dangers that ought to cut him off at an early age. As a medical student he is believed to undermine his constitution with tobacco and spirits, and to run the risk of inflicting fatal wounds upon himself with the dissecting knife. When in active practice he is supposed to be dragged out of bed at all hours and in all weathers to attend to his patients, and to be constantly exposed to the danger of contracting infectious and contagious diseases. The wonder is that a man engaged in such a profession ever lives to middle age, whereas, as the statistics above quoted show, he has an excellent chance of living to be 80 or 90.

The facts undoubtedly are that in a doctor's daily life there are conditions which are eminently favorable to longevity. First among these is the fact that a doctor never takes his own medicines. Men who are not doctors take large quantities of medicine, and it has been computed that the average adult man takes seven quarts of liquid medicine, three pounds of powders, and two hundred pills annually from the time of his birth until his death. About a third of this enormous quantity of medicine is taken without the advice of a physician, and the remaining two-thirds are given by medical advisers. Now, a doctor not only never takes his own medicines, but he very seldom calls in another physician to prescribe for him, well knowing that medicines are to be taken only when their use cannot be avoided. This gives the doctor an immense advantage over ordinary men, in spite of his greater liability to contract contagious and infectious diseases.

Then, too, a doctor takes a great deal of exercise. It is true that he takes little exercise in the course of his office practice, but his out-of-door practice, compelling him, as it does, to hurry from one house to another and to climb innumerable stairs, gives him the exercise which men of other professions fail to obtain. Then, again, he sleeps more soundly than other men. Knowing that he may be called up at any hour, he goes to bed with the resolution of compressing as much sleep as possible into the briefest time; and the concentrated sleep thus obtained does him more good than many hours of light and uneasy slumber.

To these healthful features of a doctor's life may be added the pleasures which his profession yields. The surgeon meets with a constant succession of delightful amputations, and is liable to be agreeably surprised every day of his life with unusual abscesses and novel tumors, upon which he can exercise his ingenuity and his knife. The physician meets with quantities of interesting diseases, and is always hoping to be the first to describe some new disease to which his name will be forever attached, like the popular diseases discovered by Messrs. Bright and Cox, respectively!! If the doctor is successful, as nearly all doctors seem to be, there flows in upon him a constantly increasing stream of fees, and a lucky pestilence, or a fortunate series of explosions and railway collisions may at any time make the physician or surgeon a rich man.

It is thus easy to understand why members of the medical profession live to

a great age. Almost as easy, in fact, as it is to understand why their patients seldom rival them in longevity.—*Times*.

FORMATION OF A SECOND NEW YORK COUNTY MEDICAL SOCIETY.—The bitter fight which has been waged by the adherents of the old and new codes of medical ethics has terminated, as was predicted, in the formation of a new county medical organization in this city, and in the beginning of an organized effort to carry the profession in this State back into the American Medical Association. Far-seeing members recognized from the day the New York State Association resolved to allow physicians to counsel with doctors other than those of the old school that the schism would be a serious one. When the National Association refused to admit to its deliberations the representatives of the New York society this opinion was strengthened, and the decision of the State Association not to send delegates to the National Association confirmed it. The contest has been very bitter in the New York County Society, but the new-code men have had a majority and have elected their officers.

The numerical strength of the New York County Society has enabled it to practically control the action of the State Association. Recognizing the fact that they were in a minority, the old-code men last year formed "The Central Organization of the New York State Medical Association to Uphold the National Code of Ethics," and began a careful canvass of the State. The council included Drs. Abram Du Bois, J. W. S. Gouley, William T. Lusk, Austin Flint, Austin Flint, Jr., John H. Hinton, Samuel S. Purple, Samuel G. Hubbard, and T. Gaillard Thomas. Dr. Gouley was made secretary. Circulars were sent out through the State propounding this question: "Are you for the national code, the new code, or no code?" Replies were received from the doctors themselves in many cases, and when this failed, the secretaries of the county societies furnished information. In all, 5,219 physicians were asked to assert their preferences. A proof of the tables prepared from these replies, and from what is believed to be reliable information obtained from other sources, was issued. The tables were arranged by counties. It was shown that out of the 5,219 physicians questioned 2,442 favored the national or old code, 943 the new code, 210 no code at all, 31 failed to make their preferences clear, and 1,611 were not heard from. Of the physicians in New York, 770 favored the national code, 423 the new code, 58 no code, 10 failed to make their preferences clear, and 445 to respond to the circulars addressed to them. A copy of this proof was sent to every physician whose name appeared in the list, and he was asked to correct any errors which he might find, in order that an accurate list might be issued. It is believed that the doctors addressed included nearly every old-school practitioner in the State.

The result of the canvass led the council to believe that a large majority of the doctors of the State preferred the national code, and that the profession of the State had been placed in a false position through the preponderating influence of the New York County Medical Society. It was resolved to begin the work of reclaiming the State from the new-code men by organizing an old-code county society in New York. The project was talked over, and an organization was effected. The meetings were informal and private, and devoted principally to discussion of ways and means. The organization was named the New York County Medical Association. Dr. William Detmold was elected President, Dr. Charles Leale, Vice-President, and Dr. E. A. Judson, Secretary.

The first regular meeting of the association was held at the College of Physicians and Surgeons in January. The hall of the college was crowded with friends. On that occasion Dr. Austin Flint, Sr., read an exceedingly valuable paper on the relations of the bacillus of Koch to tuberculosis, and Dr. William H. Welch presented an interesting specimen of echinococcus of the liver.

WINE AS A SOCIAL DRINK.—The *New York Times* relates a remarkable story of a Sheboygan (Wis.) physician. It seems that he did not take kindly to surprise parties, with which well-meaning but injudicious country people are wont occasionally to assail their advisers. One night, just after he and his wife had retired, the surprisers came down about thirty strong. The victims arose, dressed themselves, and welcomed the invaders with cordiality. There was only one thing which seemed to mar the doctor's delight at seeing his "friends," this was his fear lest they might have contracted typhoid fever by passing near a sewer opening at some distance from the house. He told them that although in the day-time the sewer gas was comparatively innocuous, he should be afraid to pass within reach of it at night, and that he could not bear to think that his friends should have incurred any risk of health by their delightful and unexpected visit to his humble home. The "friends" laughed at his fears, and refused to be in the least degree alarmed. They made themselves at home by scattering cake crumbs on the carpet, and playing airs from "Pinafore" on the piano. When the physician brought out wine, they accepted it gladly, and there was not one who refused his earnest request to drink a full glass of wine to show their hearty goodfellowship. Five minutes later a strange silence fell simultaneously upon the assemblage. Strong men began to grow pale, and several ladies remarked that it was very late, and that they must immediately go home. The good physician said he was afraid that some of them were beginning to feel the effects of that sewer gas, and begged them to try a little more wine, but they all declined, in much haste, and began looking for their hats in a hurried and preoccupied manner. One man rushed suddenly for the door and vanished without hat or overcoat, and in a few moments the invaders began a panic-stricken retreat. In vain did the physician urge them to stay and have a dance. In vain did he press more wine upon them, and offer to have some nice chops cooked if they would only wait a little longer. They fled, without waiting to say good night, and as the doctor and his wife stood smilingly at the front door, holding the lamp to light them on their way, strange and awful sounds came through the darkness of the night, and the fence on the opposite side of the road seemed to be hung with limp and agonizing criminals. The next day the physician was sent for by twenty-seven of the thirty marauders, who informed him that they had been taken suddenly ill from the effects of sewer gas, and were on the brink of typhoid fever. He soon cured every one of them, and thus laid the foundation for what promises to be a large and successful practice. The physician has since replenished his stock of antimonial wine, and frequently remarks, that he greatly enjoys surprise parties, and will always be happy to have his friends call on him at midnight and take a friendly glass.

YALE COLLEGE.—FAVORABLE REPORT ON ITS SANITARY ARRANGEMENTS.—New Haven, Jan. 30.—A circular signed by President Porter, of Yale College, has been issued giving the report of a special committee appointed to inquire into the sanitary condition of the college buildings. The investigation was deemed advisable in view of the alarm and exaggerated rumors to which several cases of typhoid fever gave rise. The committee consisted of Dr. C. F. Chandler, of the School of Mines in Columbia College and until recently President of the Board of Health in New York; Dr. C. A. Lindsley, of the Yale Medical School and Health Officer of New Haven, and Prof. W. H. Brewer, of the Sheffield Scientific School and a member of the State and City Boards of Health. They report to President Porter that they have carefully examined Durfee, Farnam, and North Middle buildings, and find that the plumbing arrangements are in accordance with the latest and most approved methods of sanitary science. No sickness, they think, can be justly attributed to local causes in either building.

Durfee and Farnam Colleges were selected for examination for the reason that they had been subjected to special criticism and suspicion. North Middle College resembles all the older college buildings in its arrangements for drainage and all together are controlled by one system of sewerage. Prof. Brewer, in a special report, says that New Haven has the lowest death rate of any seaport town of its size in the world, and that the ward containing the colleges has had, for five out of the past seven years, the lowest death rate of any ward in the city.

President Porter states that the cases of typhoid fever have been as follows: One graduate and one professional student, one of whom resided on the college premises, and both of whom had overworked very seriously for several months. Both died, one at New Haven and the other at his house. Of the Senior Class, academical department, two, one terminating in death very early in the term, the attack having been ascribed to serious exposure; of the Junior Class, two, both convalescent; of the Sophomore Class, two or three, convalescent; of the Freshman Class, one, recovered. At present the students seem to be in their usual health and spirits. The President adds that no good reason seems to have been discovered for the sensational reports or for the temporary alarm which these reports occasioned.

**DIRT AND DISEASE.**—Recent sanitary statistics collected by the Italian Government show that Rome is now the healthiest of all the large cities of Italy. That the improvement in the sanitary condition of Rome is due mainly to the attention which has been paid to cleanliness since the Italian occupation is shown by the fact that the new quarter—popularly called “Macao”—is the healthiest part of the city, while the Ghetto is the most unhealthy. “Macao” has wide streets and modern houses, furnished with proper drainage, while the Ghetto is in precisely the same state in which it has been for the last century—that is to say, a state of unspeakable filthiness.

The generally received theory as to the deadly nature of the Roman malarial fever is not sustained by recent statistics. The Ghetto, being densely inhabited, has always been remarkably free from fever. In fact, it was formerly the healthiest part of Rome. On the other hand, “Macao” is, without doubt, the most malarial district of the city, and few persons can live there without suffering some of the symptoms of malarial poisoning. Nevertheless, the death rate in “Macao” is much smaller than it is in the Ghetto. This proves that the Roman fever is not ordinarily a fatal disease. In its worst form it is undoubtedly very dangerous, but it is very seldom that any one living prudently contracts it in this form. The people who live in “Macao” suffer much the same symptoms to which people who live in malarious districts are accustomed, but the small death rate in such places shows that one may shake a long while with impunity. It was the dirt of Rome which formerly made it an unhealthy city, and were the Ghetto to be thoroughly cleaned, Rome would be one of the healthiest cities in Europe.

|| **BAD STATE OF RUSSIAN PRISONS.**—Judging by the figures contained in recent official medical reports, the sanitary condition of some of the prisons of Russia appears to be as bad as when the English philanthropist, Howard, visited them a century ago. Thus, the prison at Tomsk, in which the persons condemned to exile in Siberia are lodged prior to setting out in gangs on their eastward journey, has of late proved a veritable pest-house. In the year 1882 no fewer than 1,268 of the prisoners there were treated for typhus fever. A still larger number suffered from attacks of dysentery and recurrent fever, while 1,311 others, mostly children, fell ill of diphtheria, small-pox and measles. Generally speaking, every inmate of the prison suffered from one or other of

## EDITORIALS.

the above-mentioned diseases, and many from more than one. The number of deaths was very considerable.

**THE FIFTH CASE, IN FIFTY YEARS, IN BROOKLYN OF MALIGNANT PUSTULE.**—Death from malignant pustule was the verdict rendered, January 30, by a jury of doctors in the case of Mrs. Mary R. Forrester, who died at her home, No. 199 York street, Brooklyn, on Tuesday, January 29. Dr. F. H. Ross was called at 5.30 o'clock on the morning of that day to attend Mrs. Forrester. She was to become a mother in several months, and was suffering from pains in the back and lower part of the abdomen. The doctor prescribed the medicine usual in such cases, and returned to see his patient again at 9.30 o'clock. The medicine had not produced any apparent effect. Dr. Ross noticed that there was a small chocolate-colored spot about the size of a five cent piece on Mrs. Forrester's nose. A hypodermic injection was administered, and the doctor did not again see his patient until 2 o'clock in the afternoon. The case had then assumed a serious aspect. The discoloration had extended down each side of the face, the patient was delirious, and the action of the heart was weak. Three hours later a general disintegration had set in. The face, neck, and chest had turned to what the doctor described as "a dead color," and at eight o'clock in the evening the woman died. Decomposition set in twelve hours after death and when Coroner Menninger's attention was called to the case it was deemed unsafe to make an autopsy. Mrs. Forrester was twenty-seven years of age and was the mother of three children. Death from malignant pustule is very rare, the Forrester case being the fifth that has occurred in Brooklyn in fifty years.

**EVERY PATIENT HIS OWN CASE-BOOK.**—Dr. Howard A. Kelly states in the *Medical News* that he has for more than sixteen months, while a resident in an American hospital, been in the habit of mapping out on the superficies of the body, in an indelible aniline color, the results of a physical exploration of the condition beneath. The markings remain fresh and clear from one to several weeks or longer, profuse sweating being the only symptom that is apt to obliterate them. He uses abbreviations to designate certain physical signs, the day and month being also recorded. The markings are made so prominent as to be legible to the largest clinical class. This suggestion by Dr. Kelly may be enlarged upon to a very considerable extent. The clinical professor, it is true, would not have the opportunity of showing how a close and careful diagnosis is made, but he would be able to show a much greater variety of cases, and have all his patients arranged like diagrams around him.

In fever patients, the daily record of the thermometer could be placed, with the date, on the borders of the axillary space, on the nates, or elsewhere, according to the mode of using it; the analysis of the urine with its specific gravity, etc., could be recorded micro-graphically on the perinæum; on the hypogastrium a record of all puerperal or uterine cases might be recorded; while over the epigastrium could be written the prescriptions and diet for the day, etc. The method proposed is, in all respects, excellent, and will, doubtless, be adopted.

**THE HEALTH OF THE ARMY.**—According to the report of the Surgeon-General of the Army for the year ending June 30, 1883, the diseases of the respiratory organs stand first in numerical importance, and of these 64 per cent. are catarrhs of the upper air passages. Extremes of variation in temperature will account in part for the frequency of these diseases, but to a larger extent insufficient ventilation of barracks and dormitories, as well as irregular and unequal distribution of artificial heat during cold weather, must be held responsible. Wounds, injuries and accidents stand second on the list of causes

impairing the effectiveness of the army. The large number recorded in this class may probably be attributed to the use of troops in mechanical and laborious employments which form so large a proportion of the soldier's duties. As an indication of the peculiar hardships to which the troops are exposed, the rates of admission for wounds, accidents, and injuries are 122 per thousand higher than those reported for the German army, and 142 per thousand higher than the decennial rate of the British army. It is interesting to note that the negro troops make a particularly favorable showing in the small number of admissions for alcoholism and its results, exhibiting, as they do, a rate of only 4 per thousand to a rate of 76 per thousand of mean strength among the whites. On the other hand, in diseases of the nervous system they have an unexplained preponderance.

TURN THE COWARD OUT.—Dr. Green, in the *Lancet*, says: 1. Always have the window opened before entering the patient's room or ward. 2. Never stand between the patient and the fire, but always between him and the open window. 3. If possible, change your coat before entering the room. 4. Do not go in for unnecessary auscultation or other physical examination. 5. Stay as short time as possible in the room. 6. Never, while in the room, swallow any saliva. 7. After leaving the sick-room, wash the hands with water containing an antiseptic. 8. Rinse the mouth with diluted "toilet sanitas" or Condy's fluid, also gargle the throat with it, and bathe the eyes, mouth and nostrils. 9. Expectorate and blow the nose immediately on leaving the sick-room. 10. Keep up the general health by good food, exercise and temperance. 11. In addition to the above recommendations, which are all pretty generally known, I would suggest another, which is, in my opinion, the most important of all. This is to filter all the air you breathe while in the sick-room or ward through an antiseptic medium. My method is to use a McKenzie's inhaler over the nose and mouth. I carefully soak the sponge in a strong solution of carbolic acid before entering the sick-room. It is so made that all the air breathed must necessarily come through this sponge, and the expired air is emitted by a valve action at another place. The only objection is the unsightly appearance one has with the inhaler. This objection is, however, a very slight one.—

AMERICAN PORK AND TRICHINÆ.—Mr. Frelinghuysen's statement, January 29, concerning the exclusion of American pork from the markets of Continental Europe is admirable in tone and temper, and very nearly conclusive as an exposition of the facts in the case. It was essential that there should be nothing irritating in the tone of it, because, although ostensibly intended for the information of Congress, it was really addressed to the people of the countries from which American pork is now excluded by executive action. The array of evidence is formidable already, and will no doubt be rendered irresistible by the report of the special commission to whom a scientific investigation has been entrusted. When that is done, the Governments which have excluded American pork will be compelled to avow that the sanitary pretext for the exclusion is *merely a pretext*, and to defend their action as a measure of protection. That they are doubtful of the result, if they take this ground, is indicated by the fact that they have not taken it already.

The *Herald* has printed the report of an interesting interview with Professor Virchow upon this subject, which is most noteworthy for his constant assumption that *the pretence of protecting the health of the German consumers of pork is a mere sham*.

PHYSICIANS' AND LAWYERS' FEES.—It is always gratifying to know that a man has not suffered by his devotion to the public good, and particularly in the cases

of the counsel who nobly abandoned their private practice in order to bring Brady and Dorsey to justice. They did not bring them to justice, but that is mere detail.

Mr. Bliss received in the two years from Nov. 8, 1881 to Nov. 9, 1883, the sum of \$29,407.49, \$807.59 being for disbursements. The services seem to be charged for on the broad general principle that the time of Mr. Bliss is worth \$100 a day. But Mr. Ker has exceeded these charges with a bill for \$31,877, while Mr. Merrick appears to have received \$17,500 and Mr. Cook \$5,250.

The appearance of Mr. Benjamin Harris Brewster with a bill of \$5,000 for "professional services," which he is supposed to have rendered in return for a salary, is perhaps the most interesting incident brought out.

When the medical fees in the Garfield case were discussed in Congress they were generally denounced, yet they were but a fraction of the fees charged in this case. Congress is made up of lawyers; there are but six physicians in the two Bodies. Attorney's fees, however extortionate, are "passed," while physicians fees, however moderate, are "scaled" and denounced.

EUTHANASIA.—I had two patients within a year who, when they could not live, found it almost impossible to die. They were both good men, and had looked death in the face more than once without alarm. In the one, after a ten hours' struggle I asked, Would you like to sleep? The answer yes and the expression of joy replacing the anguish, were enough to warrant this consideration of the subject. One injection of morphia and there was rest in ten minutes, and a sleep that faded into death in four hours. In another, after a night with death, I said to the mother, Shall he sleep? There could be but one answer. If it is possible to prevent this suffering and let him sleep, let it be done at once.

I do not believe that it is right for one to take his own life because life is only prolonged misery and suffering; and I do not think it right, in such a case, for the physician to do that which would shorten the man's days. But when death is at the door and will not be said nay, then to open the door is an act of charity.—*Eclectic Med. Journal.*

WATER USED IN GREAT CITIES.—Sir Joseph Bazalgette has appended to the published report of his address a carefully compiled table giving a large amount of statistical and other information about the chief cities of the world. The 31 gallons of water per head supplied to London compare unfavorably with the 73.3 gallons used in Boston, Mass., the 60½ in New York, and the 54.15 in Philadelphia, though the return for the latter city adds that "nearly half is wasted." Chicago, which has the unparalleled reservoir of Lake Michigan close at hand, gives each of its citizens 102½ gallons a day, while the District of Columbia, which consists of Washington, Georgetown, and the surrounding country, has 143 gallons per head per day. All the American and Canadian cities thus possess a profusion of water which puts London supply to shame. On the Continent, Rome has the lead. From its four sources the city supplies 160.38 gallons a day of spring water for each inhabitant; Marseilles comes next with 158.4 gallons from the river Durance; while Hamburg pumps from the Elbe 45½ gallons per head, and Paris 36. Berlin, on the contrary, is content with 13.3.

MEDICAL DIPLOMAS.—The Senate Committee (Albany, N. Y.) on Miscellaneous Corporations and the Assembly Committee on Public Health held a joint session in the Assembly Chamber on Senator Campbell's bill creating a medical faculty, to consist of nine members, to be appointed by the Governor, which shall possess the power now vested in colleges for the examination of students and the granting of diplomas. The proposed faculty is to consist of six allo-

pathic and two homœopathic practitioners and one eclectic practitioner. Francis Lynde Stetson, of New York, Prof. Loomis, of the Medical Department of the University of New York, Prof. Curtis, of the College of Physicians and Surgeons, New York, the Hon. Ray V. Pierce, of Buffalo, Drs. Lee and Gunn, Dr. Henion, of Rochester, and others, representing as many different schools of medical practice, agreed in opposing the measure in its entirety. (Jan. 30th).

DOCTORS AND PATIENTS.—Some few months ago one of our medical celebrities was walking down Bruton street one afternoon with a friend, when they perceived coming toward them a strikingly handsome woman. Dr. Z. immediately seized his companion's arm, and without saying a word crossed rapidly over to the opposite side of the street, "What is that for?" inquired the other. "Why, the fact is," stammered out Hippocrates, "I don't particularly wish to meet that lady. I attended her husband last year—a very bad case indeed—and—" "I understand interrupted his friend, "he died under your care." "Worse than that," replied the physician, "a great deal worse. I cured him, and, from what I know of her, she is not likely to forgive or forget it."

THE ROWELL TRIAL FOR MURDER.—Rowell, of Batavia, N. Y., who pre-arranged, in the most deliberate manner, and after a careful discussion with Palmer (his friend), to kill the paramour of his wife, and who did kill him while caught in the act of adultery, is undergoing his trial at Batavia. The doctors are, as usual, declaring him to be insane, when the man had actually in his preparations and determination given the highest proofs of his sanity. The doctors who pronounced him insane are, as usual, "experts"—Drs. S. C. Clark, of Lockport, N. Y., Edward C. Mann, of this city, H. A. Morse, Batavia, N. Y., and M. W. Townsend, Bergen, N. Y. When is this nuisance and this disgrace to cease? Later : The man has been acquitted on the ground of insanity, and then—held a grand reception !!

DR. GEORGE W. M. SEMPLE died at Hampton, Va., November 14, 1883, after an illness of four weeks. Thus has passed away, in a ripe old age, a good physician, an earnest student, a clear and careful thinker, and an upright, conscientious man. The news of his death will be learned with regret by all who value these qualities, and they will feel that in losing Dr. Semple the profession has lost one of its strongest and ablest supports; one of those particularly valuable supports which was always as strong morally as intellectually and professionally. His family have the warmest sympathy of all to whom their father was known.

THE President of the United States, in his Message to Congress, refers to the removal by France of the prohibition against the importation of American pork, which he declares was due no less to the friendly representations of the American Government than to the growing conclusion in France that no danger was to be apprehended. The German Government had declined to send experts to Washington to inquire concerning the hog products, and a commission had been appointed in America to inquire into the subject. The real facts in this matter are that the German hog growers need protection in their business, and this nonsense about American pork is the result.

AN UNFORTUNATE NOTICE.—The following notice appeared in the *New York Daily Times*, of January 31st, 1884. Apart from the absurdity of the statement contained in it, all who object to such methods will deplore the appearance of such a notice. It is as follows: "An operation for lithotripsy was yesterday performed upon ex-Gov. Fenton as a means of relief from a malady which has



seriously troubled him for years. The operation was performed by Dr. E. L. Keyes, assisted by several eminent physicians and surgeons. The operation was in every way successful, and physicians say that the ex-Governor will be able to appear among his friends in a few days fully restored to health."

THE BODIES OF DE LONG'S PARTY.—Moscow, Jan. 30.—Lieut. G. B. Harber and Master W. H. Schuetze, escorting the corpses of Lieut. De Long and comrades of the Jeannette expedition, started for Hamburg to-day on their way to America. A solemn procession followed the coffins to the railroad station, where the chief Lutheran pastor of the city delivered an address. Many wreaths were deposited on the coffins, including one from the students of the Moscow University. Dr. Ambler's body (for Fredericksburg, Va.) is among them.

ONE EXCUSE FOR QUICK TREATMENT.—One of the Vienna surgeons was one day called in hottest haste to see the little son of a well-known Austrian count. On reaching his patient he found a trifling scratch on the child's hand. Sitting down and writing a prescription he gave it to one of the servants with instructions not to lose an instant, but to bring the medicine as soon as possible. "And is the danger so imminent, then?" asked the countess. "No, not that," replied the Professor; "I only feared lest the wound should be entirely healed before the servant returned."—*Medical Record*.

DR. PHILIP S. WALES.—The period for which this eminent naval officer and distinguished surgeon was appointed Surgeon-General of the United States Navy, expired January 26th, 1884. One of the bureau officers will discharge the duties of the office named until a Surgeon-General of the Navy is appointed. Surgeon-General Wales has served with great efficiency, brilliancy and success; and the medical profession of this country have taken great pleasure, pride and interest in his administration.

DR. J. MARION SIMS.—The British *Medical Journal* pays the following tribute to the memory of the late J. Marion Sims: "His achievements are written in imperishable letters in the annals of modern surgical practice. The greatest success which any surgeon of genius can hope to achieve is to be able definitely and largely to add to the power of surgery to save life, to relieve misery, and to effect cure. This success Marion Sims attained in a degree which few can hope to attain."

GRADED MEDICAL SCHOOLS.—The "craze" for this class of colleges seems to be passing away, and very properly. The system of examining students in the most cardinal and important branches at the end of the first year, and then allowing them to neglect or forget these branches *and yet have a diploma*, is supreme folly. The old Edinburgh system of keeping up every study is by all means the best. It is the only sensible method.

"THIS PICTURE AND THAT."—When the old and new code men met to administer laws, to measure strength and *elect officers*, 599 ballots were cast. At the next meeting there were 16 present; 4 of these were reporters, 2 were presidents (outgoing and incoming), leaving a working Body of 10. Is the N. Y. County Medical Society a scientific Body?

DR. WILBUR, the superintendent of an idiot asylum in Illinois, purchased his supplies in open market in Chicago. This so offended the local merchants about the asylum that they exerted such political influence as to oust him from his

superintendency. *The Journal of Mental Diseases* says that similar occurrences are common in all the States. The more the shame. Corrupt measures are taken to secure the location of an asylum so that it may build up a little town.

VERY SAD.—PARKE DAVIS & Co.—The *Detroit Lancet*, in its January issue, says of this well-known house that “the name of this firm has made its way everywhere that the feet of men have gone, and *their bodies need the aid of medicines.*” This result of enterprise, fidelity and honesty in pharmacy is very novel and very sad. What medicines shall they have?

“VIRGINIA MEDICAL MONTHLY.”—On January 1st, 1884, Dr. Wm. H. Coggeshall, of Richmond, by purchase, will become half owner and full associate editor of that journal. The editor of this JOURNAL wishes Drs. Edwards and Coggeshall an abundant success. They fully deserve it.

ICE.—The Senators of the United States consumed during the months of July and August, 1882, no less than two hundred and one thousand pounds of ice, and were compelled to take seventeen hundred two-grain quinine pills at the expense of the nation in order to tone up their several systems.

THE “ÆSCULAPIAN.” BY BIRMINGHAM & Co., VOL. I., NO. 1.—The publishers say of it: “We confidently assert that it is second to no journal published.” For a first number such a statement has, at least, the merit of novelty.

THE proceedings of the Sims’ memorial meeting at Washington will be read with great interest and profit by all. The addresses made were in every respect excellent, and Dr. Toner’s biography of Sims is invaluable. It will be historic for its scope and accuracy.

BIRMINGHAM & Co.—The profession and the press will be sorry to learn of the failure of this enterprising and energetic house, which recently was publishing in this city the *Medical Gazette*, the *Æsculapian*, and many medical works. It is to be hoped that the house can resume operations again.

THE New York College of Midwifery, if not a swindle, is, at least, a most disreputable institution, and the sooner reputable physicians leave it the better will it be for their honor, peace and prosperity.

THE “LONDON MEDICAL TIMES AND GAZETTE.”—This old and sterling British medical weekly is sent with this journal for \$9. It is one of the best journals published.

THE practice for sale in this JOURNAL is well worthy of attention. It is an excellent location; the statements made in regard to it are strictly correct, and the physician offering the property is worthy of the most absolute confidence.

A CREMATION SOCIETY FORMED.—New Orleans, Jan. 30.—A meeting of cremationists was held here to-night, and it was decided to organize a society instead of a stock company, so that all favoring cremation might become members.

LILY OF THE VALLEY.—Read Dr. Squibb’s article, in this number.

NOTICE.—Please read the last line on the title page.—ED.

# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

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Scientia et Veritas Sine Timore.

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VOL. XXXVII.

NEW YORK, MARCH, 1884.

No. 3.

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## ORIGINAL ARTICLES.

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ARTICLE I.—MEDICATION THROUGH SUPERFICIAL AND DEEP-SEATED TISSUES. By  
J. McF. GASTON, M.D., Atlanta, Georgia. (Lately of Campinos, Brazil.)

Those who look to facts for a reason of their faith are referred to the following illustrations of the action of medicines in the cure of diseases by local applications :

Simple water, either at the temperature of the surrounding atmosphere, or varying from it by greater heat or cold, has been brought into requisition in baths of various forms, which bring corresponding modifications of the true vital phenomena. The vapor, hot and cold water, with the shower bath, each influence in a separate manner the capillary and nervous ramifications of the surface, and their respective impressions are extended through the nerves to the whole frame, so that important alterations in the functions of different organs ensue from these various modes of operation. The internal uses of warm and cold water have their special properties, and in a recent elaborate address of Sir William Jenner occurs the following : " Patients suffering from typhoid fever should be allowed an unlimited supply of pure water. When pure water is freely absorbed it passes away by the kidneys, skin, lungs, etc., and is of much service as a depurative agent." The common practice of promoting daily evacuations by glysters of cold water, shows its salutary influence upon the tonicity of the large intestines by stimulating its muscular contractility.

The subcutaneous use of distilled water has been resorted to with apparent effect upon the nervous system, and if there be no deception in the influence of such applications, this proves the existence of a very delicate sensibility of the organization to the action of agents introduced by the hypodermic process. By this means of treatment, the therapeutic susceptibilities to the operation of medicines are most decidedly and efficiently met, and the marked results of subcutaneous injections depend upon the connection of the nerve fibrils and the capillaries with the ganglionic and spinal nerves

The notable effects observed from the application of cups, sinapisms, and

blisters upon the cutaneous surface, are due likewise to the sympathies established through this channel.

A dynamic element, that characterizes the mutual dependence of the superficial and deep-seated structures, is apparent from the fact that under some conditions of the organism the irritant fails to manifest its influence upon the tissues. Mustard or the cantharides may be applied to the surface for the ordinary period, under such a modification of vitality, without producing any sensible effect. Yet, when a change has been effected in the state of the general powers of the organization, normal susceptibility dates from this alteration. The natural sensibility is restored to the skin, and irritation, with the consequent inflammation, manifests itself in the parts where no effect was previously observed. It is highly important to ascertain upon what depends this difference in the ordinary capacities of the system to respond to the local application of irritants. A rigid examination of the nerve element implicated in this condition is required by those who would proceed upon philosophic principles for its relief. It is this supply of nervous energy that is lacking in that condition known as shock, which results from severe local or general injuries. There exists, under such circumstances, a partial paralysis of the excito-dynamic function of the nervous system, upon which the most essential requisites for life depend. The exercises of the intellectual faculties may be unimpaired, and yet, without any recognition on the part of the subject that the vital forces are seriously affected, the underlying deep-seated injury to the nervous system is such as to endanger life. This grave result of concussion of the nerves should always be suspected after extensive lacerated wounds, and its existence is quite sufficient as a contra indication to any further tax upon the vital powers, so that a knowledge of this condition should prevent for the time being a resort to any surgical proceeding that might otherwise be indicated.

The transmission of cutaneous modifications to the internal organs becomes, in many cases, simply the expression or delivery of a dynamic influence that operates through the nerves, and we must attribute the cause to the conduction of medicinal elements in the course of the multitudinous currents setting out from the point of introduction. Morphine, carbolic acid, ergotine, etc., are applied hypodermically in various conditions, and instead of a local irritation, as might be anticipated from the topical application, there is a general influence upon the organism, corresponding to the special property of the agent employed.

So much has been written in regard to the hypodermic use of morphine, and its effects are so generally understood, that I need only to make a passing reference to its efficacy as a remedy and the danger of its habitual use. The large experience of the prompt influence of morphine by subcutaneous injection has led to great abuse of this narcotic by persons addicted to it. It would seem that the use of a syringe ought to be an obstacle to this pernicious habit, yet there has been a large increase in the number of those who are subject to its daily use since the general resort to the hypodermic application of morphine. The sad consequences of this vitiated indulgence, however much to be deprecated, still serve to illustrate the speedy and thorough effect of its hypodermic use.

Believing that systematic details of the results of hypodermic applications

may lead to very useful generalizations, I will contribute something from the observations made, hoping that others may be induced to present the fruits of their experience in this field of investigation.

The use of stimulants by the subcutaneous method has been attended with the best results in averting prostration in cases of syncope, or from great debility of a temporary nature, accompanied by inability to swallow. At the close of surgical operations, under the influence of anæsthesia, there is, at times, an urgent indication for a stimulant, and brandy may be introduced with the hypodermic syringe of large size in such quantity as the case may require, presenting a speedy manifestation of its effects upon the general circulation. In the same condition a weak solution of aqua ammoniæ or the carbonate of ammonia may be used subcutaneously, and produce its effect very promptly in correcting the tendency to sinking of the vital powers.

The pervading and thorough propagation of the peculiar effect of medicine on the general system, by subcutaneous use, is not shown more clearly in the application of any class of medicinal agents, than by the results of the hypodermic injection of the preparations of quinine. In cases that have not yielded to the administration of this remedy by the mouth, or in which, by frequent recurrence of the disease and hence the long-continued use of the medicine, the system has become so completely habituated to its influence as to fail in its corrective effects by internal use, the resort to hypodermic injection has been efficient in resisting intermittents. It has generally answered the purpose to inject five grains of quinine on each of two successive days, one application made in the inner part of the arms and the other in the thighs, where the tissues favor the introduction and absorption.

While the indications for the hypodermic use of the preparations of quinine are recognized by all, there is still a sort of prejudice against its application from the alleged tendency of the subcutaneous injection of the sulphate of quinine to induce abscesses in the parts where it is introduced, I am inclined to attribute the untoward results that are complained of by some practitioners to the excess of sulphuric acid in the solution used in their injections. In such cases as I have used the sulphate of quinine, with the addition of only so much sulphuric acid as is requisite for its solution in the distilled water, nothing more than an ecchymoid spot has followed the injection. But I have usually employed the bisulphate of quinine, which readily dissolves in simple distilled water; and this injection has been attended with the happiest effects in securing the proper effect of the medicine without any local trouble. I would, therefore, suggest the application of this preparation in place of the acidulated solution of the sulphate, as my observation of the therapeutic effect of this subcutaneous injection warrants my confidence. The hypodermic use of carbolic acid has been resorted to in a variety of cases, and I have been much encouraged to continue this application for local and general effects. The utility of the local injections in the tissues has been verified in the case of goitre, buboes and hæmorrhoids, and I have reason to think that the injection of carbolic acid into other indurated tissues may be crowned with success. The highly salutary influence of the subcutaneous use of this agent in erysipelas prompts me to urge

the great importance of resorting generally to this mode of cure. The invariable good results that have attended its application in my hands seem to recommend it as a safe and efficacious remedy in erysipelas. In the cases of circumscribed patches, the injections have been made in one or two points, according to the extent of the reddening and thickening of the skin; and the local inflammation has in every instance been controlled without recourse to general measures of treatment. In other cases of a generally diffused discoloration, I have used the carbolic acid injection accompanied with internal remedies, so that an element of doubt enters as to what brought about the salutary result. One of the cases of erysipelas that involved important parts, and a considerable extent of surface, was associated with puerperal fever.

She was using internal remedies for puerperal fever when the erysipelas appeared, and the adynamic condition was a prominent element in the case at this juncture. In those parts where the erysipelas seemed to be most developed, subcutaneous injections of carbolic acid were made repeatedly, and it was relieved locally by these applications; yet it manifested a tendency to extend itself to other portions of the skin. Being effectively checked in these new seats in the adjoining surface with the carbolic acid injections, it eventually yielded entirely after the expiration of a week from its first appearance. In the meantime she took internally the muriated tincture of iron freely, and subsequently a decoction of cinchona with chlorate of potash, so that the favorable result must be viewed in connection with the internal medication. It was evident that the hypodermic use of the carbolic acid was salutary, and I consider it a most fortunate issue, in consideration of the circumstances that no phlegmonous inflammation was developed.

The formula employed in this class of cases is the following:

R Fluid carbolic acid.....	20 drops
Glycerine.....	2 drachms
Distilled water.....	6 “

Mix and inject one or two fillings of the hypodermic syringe in several points of the surface affected with erysipelas.

In the same category of therapeutics may be considered medicated injections into the serous and mucous cavities, and into the excavations of abscesses.

But, before proceeding with this class of applications, it is proper to refer to the operation of medicinal agents introduced into the stomach by the natural process of deglutition or by artificial means.

From my standpoint for viewing the action of medicine in the case of diseases, the stomach must be viewed as any other receptacle for drugs, and given preference as a channel for administration of remedies only so far as it fulfills more completely the requisites for appropriating the active and curative principle of the agent employed.

That medication is effectively accomplished through the stomach results from the great facility with which its mucous surface absorbs the medicinal agent, and by thus being brought in contact with the network of capillaries and nerve fibrils that underlies this lining of the organ. As has been noted already, the action of medicine is through the capillaries upon the nerve fibrils, and thence

extended along the nervous trunks to the nerve centres, and by a reactionary property the influence is reflected upon this organization so as to meet the aims of medical treatment. With some articles the effect is not immediately manifested in the stomach, and the influence becomes apparent only after passing into the intestines, but in whatever portion of the alimentary canal the peculiar quality of the agent is exhibited it must be explained upon the same reciprocal relation between the several elements. It has been demonstrated by Bernard and others that the villi of the small intestines contain a peculiar set of lymphatics, which are engaged in the absorption of chyle, the lacteal system being a special arrangement for the absorption of fatty substances, and that other matters, such as albuminous compounds, pass for the most part into the veins and thence to the liver. In this special adaptation to its chyloferous functions the small intestine, like the stomach in the act of digestion, fulfills its normal rôle in health. But when from derangement of the animal economy it becomes requisite for these organs to receive an entirely different order of ingesta that have antagonisms with the ordinary performance of their functions, it should not surprise us that the operation of this antagonistic element should occur in a mode entirely diverse from the natural process of digestion and chylofaction. As the active medicinal agents do not undergo these modifying processes, they are, for the most part, absorbed directly from the stomach or the small intestines, and proceed to have their peculiar effects without reference to the normal exercises of their functions by those parts of the physical organization. It is an established fact, for instance, that the effect of a purgative, such as croton oil, may be induced without the medicine entering the alimentary canal, and hence the same as when absorbed from it directly.

The conditions presented in the mucous membranes of the larger intestines are quite different from those adverted to in regard to the stomach and small intestines. The matters which find their way into the colon from above do not as a rule contain elements that are useful in the animal economy, so that there are no special organs, such as the lacteals, to be found in the tract of the larger intestines. But as it is understood that medicine enters the system for the most part through the veins and capillaries, we are prepared to appreciate the utility of their introduction through the rectum into the cavity of the colon.

Alimentary and medicated injections into the large intestine are efficacious chiefly through the operation of the principle of endosmos and exosmos, suggested originally by Dutrochet for the interchange of fluids of different densities through a membranous partition. That absorption takes place to a limited extent in the ordinary mode by which fluids are taken up by mucous membranes is evident. The law of affinities undergoes in this instance a remarkable modification in not accepting the residual matter of digestion, nor the decomposed fluids resulting from derangements of this function, and yet appropriating from fluid injections their alimentary and medicinal portions.

Forced evacuations are not uncommon, after the introduction of alimentary injections through the rectum, without any part of the latter being returned with the stool. This is clearly a sort of election on the part of the mucous surface, by which the one is rejected and the other is appropriated when brought

together in the colon. Chicken water and beef tea, with decoction, of cinchona and muriatic acid, have been employed frequently as injections into the large intestine, and with the most satisfactory result, in being retained and in affording nutriment and medication to the debilitated patient, who could not receive them by the mouth.

If the alimentary and medicated fluid is carried above the contraction of the muscular fibres of the intestine which constitutes the division between the rectum and colon, there will be no immediate impulse for its expulsion; and such injections should be made with a long elastic tube, reaching above the sigmoid flexure of the colon, to secure the best results. There is a well-developed sphincter of the colon, which is not well defined in anatomical or physiological descriptions of this part, but which special attention and examination has demonstrated conclusively to me, and located immediately below the sigmoid flexure of the intestine. This seems ordinarily to retain the fæcal matters within the colon, and more especially when in a fluid state, as in cases of diarrhoea, so that they do not descend into the rectum until approaching the occasion for evacuation. It is only when the fæcal mass is impelled forcibly against this internal sphincter that there is a strong impulse for expulsion, and though it may pass it, and be detained temporarily in the rectum, its presence in this receptacle is calculated to give discomfort locally, and general disturbance, so that there should be as little delay as possible in ridding it of this nuisance.

While the long tube is indicated for injection into the colon, there are cases in which medication should be directed to the rectum with the ordinary short tube of the syringe. The sympathies of other adjacent organs are very intimate with this sensitive outlet of the alimentary canal, and in case of tenesmus there is direct relief by anodyne-glysters. In dysentery and other spasmodic irritations of the intestines, the painful griping is most effectually allayed by a starch and laudanum injection into the rectum. I have observed the curative influence of medicated injections into the rectum in such a variety of cases as to warrant the belief that much may be accomplished by this mode of treatment for the relief of constitutional troubles that have a local origin. It is well known that any symptoms of threatened abortion are more readily checked by an opium suppository or an essence of laudanum than by their administration per orem.

The use of belladonna in the same form is likewise attended with the happiest results in some painful uterine disturbances. I have had occasion to verify likewise the advantages of rectal injections of large doses of bromide of potash in the obstinate vomiting of pregnancy, the influence being perhaps upon the womb, and thence giving relief to the sympathetic derangement of the stomach. These references might be extended, but the facts noted suffice to illustrate the doctrine of transmission that I would inculcate.

The effects of medicated injections depend upon the contact of the fluid with reticulated tissues into which the capillaries and nerve fibrils are distributed, and hence the prompt results of such applications.

Some years ago it was claimed by Dr. Horace Green, of New York, that caverns of the pulmonary structure could be reached by tubes, and successfully injected with solutions of nitrate of silver. As such injections acted favorably



upon the walls of ordinary abscesses, he held that a similar good result attended their introduction into the cavities that involved the bronchial ramifications. Great incredulity prevailed in regard to the practicability of this operation of passing a tube into the cavity; and doubts have been entertained by many as to the advantages of bringing this solution into contact with the bronchial ramifications of the lungs. But, if we decide this upon the same kind of evidence that is accepted generally in clinical reports, it seems to me legitimate to conclude that strong solutions of nitrate of silver were injected through tubes into cavities resulting from abscess of the lungs, and that they were attended with good results locally and generally.

A case has been reported to me by an intelligent colleague, in which the upper part of the right lobe of the lung was penetrated by a knife, which passed downward and backward deeply into the pulmonary substance. This led to suppuration, and the cavity, being of considerable extent, was evacuated by a tube connected with the aspirator, and then washed out by injecting an alcoholized solution of carbolic acid. This process was repeated from day to day with a satisfactory result.

The pus gradually diminished, until eventually it ceased entirely, and the cavity was obliterated, leaving only a cicatrix in the pulmonary structure.

The result of this case, in which injections were used freely and repeatedly into a traumatic cavity in the lungs, favors the claim of Dr. Horace Green to have cured limited caverns of the lung by the use of injections of nitrate of silver through elastic tubes introduced by the trachea into the abscess.

The decision of this question does not involve in any manner the curability of tubercular consumption, as all know that a circumscribed abscess of the pulmonary tissue may occur without the development of tubercular disease.

The immediate action of an injection upon the walls of an abscess is enhanced by the vital tone imparted secondarily to the surrounding structure. A medicated injection may reach any part from which pus is discharged spontaneously, or may be drawn by the aspirator, and by appropriate treatment of such abscesses much may be accomplished in improving the condition of the adjacent diseased tissues.

In this connection may be mentioned two more cases of abscess resulting from urinary obstruction in the ureters. One was in the person of a male and the other in a female subject. The former occurred in the practice of a medical friend, who gave me free access to the case, and the latter was under my personal care. In the early stages each presented deep-seated fluctuations, which came gradually to the surface. Being explored first with the trocar, and afterwards opened with the bistoury, there appeared in each case a discharge of pus with admixture of urine. In the male case there was a very considerable destruction of tissues, and the urinary abscess occupied a large space in the left iliac and hypogastric regions, from which shreds of disorganized substance, mixed with pus and urine, were discharged for some weeks.

In the case of the female the cavity was not so extensive, and was confined to the hypogastric regions.

When this circumscribed abscess was first opened, about a quart of mingled

pus and urine was discharged, and subsequently there was no considerable accumulation, as the aperture was tented, and the collection of pus and urine escaped constantly. Both of these abscesses were treated with injections of diluted phenic acid immediately after evacuating the contents, and for some time they were repeated daily; but subsequently injections of a strong solution of the nitrate of silver were resorted to with salutary effects. The ravages caused by the urinary infiltration in the case of the man required some months for the restoration of the loss of substance, yet the process of reproduction was entirely satisfactory, and terminated in complete closure of the wound without even a fistulous opening. The extraordinary lesion of the ureter in this case was explained by the appearance of a small urinary calculus in the dressings, which had served as the cause of obstruction and ulceration of the ureter.

Nothing of this nature was discovered in the discharges from the abscess of the female, yet it might have escaped with the pus, when the abscess was opened, without attracting attention. Her case progressed most favorably throughout its course, and within one month there was simply a small discharge of urine from the wound, and, this ceasing gradually, the opening closed spontaneously without any further trouble.

The fortunate issue in these aggravated cases must be attributed mainly to the persistent use of the medicated injections, and I recommend this proceeding in similar cases, or in any instance of circumscribed abscess in the abdominal region. These antiseptic applications are not intended simply to cleanse the parts with which they come in contact, but exert a therapeutic influence upon the tissues.

The cavity of the nose, with its Schneiderian membrane, presents an extensive surface for the absorption of the medicine, either in solution or in the form of impalpable powder, and serves as a basis not only for local effects, but for general influence upon the system. It is through this channel that some individuals secure habitually the baleful constitutional narcotism of morphine, used in the same manner that so many are accustomed to employ the snuff of the tobacco.

The medical profession has encountered always a difficulty in passing fine light powders or medicated solutions into the deep nasal cavity, from the liability to pass more or less through the posterior nares in the air passages or into the pharynx. This source of embarrassment may be effectually obviated by causing the patient to blow a toy trumpet, or imitate the act of blowing up a fire, while the insufflation or injection is made into the nasal cavity. It will be observed that this act necessarily closes the posterior nares by the tight approximation of the pendulous soft palate; and it is upon this principle that the breath is made available for playing wind instruments, as otherwise the air would escape by the nose. This isolated fact cannot have escaped the attention of the most casual observer, yet I have not met with any special record of this important result in enabling us to block up hermetically the posterior nares by this valvular flap, so as to effectually prevent the escape of injections into the nasal cavities by this outlet into the throat. I have acted for a number of years upon this principle, and the simple appliance of a piece of elastic tube into which the

powder or fluid is introduced, with one end in the nose and the other end in the mouth of the patient, enables the operation to be executed most satisfactorily. As the individual must blow to cause the powder or fluid to pass into the nasal cavity, and by this very act closes the posterior opening of the nares, it will be seen that no part of the powder or fluid can reach the fauces.

It sometimes occurs that from carelessness the cavity of the nose becomes flyblown, and the maggots penetrate into the various spaces that exist between the turbinated bones, requiring then the flooding of the entire cavity, which is alone practicable when the posterior outlet is closed, and hence the practical importance to be attached to this physiological stoppage of the communication from the nose into the throat.

It is not requisite to enter into the details of my experiences with medicated injections in organic and other affections of the mucous membrane of the nose, yet I would especially advert to the general curative results of the application of medicinal agents within the nasal cavity, and counsel a more extended resort to this process. The surface in the cavity of an abscess being less susceptible to the action of the medicated injection than the mucous and serous membranes, the solution should be stronger than that of the injections into these tissues.

Independent of the applications referred to, the injections of various solutions have been used advantageously in the cavities of the womb, the pleura, the peritonæum, and even suggested for the pericardium.

Medicated injections into the womb have been condemned by some gynæcologists, from the alleged liability of the fluid to pass by the Fallopian tubes into the cavity of the peritoneum, and W. F. A., in criticizing the work "On the Usefulness of Washing out the Womb with Antiseptics in Puerperal Infection," by Joanny Rendu, M.D., in the *American Journal of the Medical Sciences*, remarks that "we have never allowed ourselves to throw any liquids into the cavity of the womb under any circumstances without feeling that we were risking the patient's life." This coming from a source entitled to such consideration, is calculated to mislead the overcautious, who would fail to accomplish a great good lest, peradventure, some harm might be done.

There is evidence that cannot be gainsaid to establish the fact of medicated injections having passed from the womb into the cavity of the peritoneum, as there is likewise at least of one instance in which an injection of a solution of acetate of lead into the vaginal canal being by some strange freak conveyed into the uterus, and thence through the Fallopian tube into the peritoneal cavity, from which death speedily ensued.

That accidents may mar the effect of the most judicious treatment is no ground for condemning the measure; and when the immense number of successful antiseptic and other applications within the womb is compared with the insignificant list of injections that have escaped into the peritoneum, it should rather encourage than discourage the practitioner in regard to the use of intra-uterine injections. The cases of untoward results are exceedingly rare and may be effectually obviated by prudent manipulations. When the outline of the womb is well defined, as in all cases after recent delivery, pressure may be made from without over each corner of the uterus, so as to obstruct the entrances into

the tube while the fluid is thrown into the uterine cavity. Yet this step can never be requisite if caution is observed against damming up the medicated solution by the closure of the neck of the womb around the tube of the syringe. This may be accomplished by employing an instrument with an escape tube, or, in lieu of this, by placing a piece of elastic drainage tube of large calibre in the neck of the womb alongside of the tube of the common uterine syringe. By either process the fluid finds a ready escape as fast as it enters the womb, and even if thrown with some force against the fundus of the womb, coming in contact with the entire interior surface, it will most certainly return to the dependent internal os and find an outlet through the open gate that is provided for its escape. The exceptional cases should not invalidate the overpowering testimony in favor of the judicious employment of the well-constructed uterine syringe. Those who have had long practice in the use of medicated solutions within the womb are convinced of their safety and of their efficiency, and should not be frightened by the scarecrows of those who have no experience in their application. The advantages of employing antiseptic applications within the cavity of the womb when its contents are undergoing a putrid decomposition, and thus threatening the life of the patient by the development of septicæmia, must warrant the risk of some possible but improbable accident.

In the contingency requiring a resort to such a measure the risk is less always on the side of applying the curative, than in incurring the consequences of putrid absorption, "and it is, we firmly believe, to antiseptic methods that we are to look with the best prospect of preventing suffering and of saving life."

A report in the *Lancet* of a clinical lecture by Dr. Robert Barnes corroborates so completely my view of the curative influence of antiseptic injections into the cavity of the womb, that the following extract is given as authoritative :

"Of late years a method, practised by Harvey, of washing out the uterine cavity when charged with noxious matter has come into vogue. The favorite agent at present in use is a solution of carbolic acid, and thus we get the two-fold good of clearing the uterus of foul matter and of modifying the surface which produced it. But we may, I am persuaded, obtain a third good. We may, by throwing carbolic acid or, better still, iodine, or quinine, or sulphate of soda, into the uterus, chase the septic matters through the tissue and vessels by which it entered. We may thus, whilst cutting off further supply of poison to the system, do much to neutralize the action of that which had already entered."

If I could have had a clinical observation made to order it would not have been more entirely in keeping with the convictions of my experience than is this record of the conclusions reached by a prominent authority in this department.

I have under my care at present a case which illustrates most satisfactorily the great advantages of this local measure of treatment in septicæmia from the remnants left in the uterus of the partially-decomposed placenta. The patient aborted between the third and fourth month of pregnancy, attended with profuse hæmorrhage and retention of the placenta. The hæmorrhage being soon checked, though not entirely controlled, by ergot, the true state of things was not understood until some days subsequently, when rigors and fever, alternating

with profuse perspiration, caused me to realize that I had a case of septic intoxication. The discharges from the vagina were observed to be offensive, yet this was attributed previously to the decaying clots of blood that remained; and it was only upon a special digital examination that it was found to proceed from a portion of the placental mass that lay in contact with the os uteri.

It not being practicable to extract this with the hand alone, on account of the contracted condition of the neck of the womb, antiseptic injections were employed within the uterine cavity. With a view to prepare the organ for the use of an instrument to extract the mass of decomposing matter, and hoping that these means might excite the womb to expulsive contraction, a warm water solution of alcoholized phenic acid and tincture of iodine was thrown into the womb repeatedly during two days.

The favorable influence upon the septicæmic fever was apparent from the first application, and improvement continued with the subsequent repetitions of it. Perceiving that the placental mass still remained, and that occasional hæmorrhage continued while the os uteri was dilatable, I proceeded, in accordance with the advice of two consulting physicians who were present, to extract the remnant of the placenta with a long-handled calculus forceps.

It often turns out in our surgical experience that an instrument devised for one kind of operation may be used to advantage in a different sphere, and those engaged in this branch of practice will note the complete adaptation of this narrow-bladed stone forceps to the case in hand.

After completing the extraction, the uterine syringe was used with the antiseptic solution thrown up well into the cavity of the womb, and the repetition of these injections daily has been attended with entire relief of all the local trouble; while the effects of the blood poisoning are yielding gradually, but slowly, under the appropriate treatment.

The cavity of the bladder affords very frequently indications for the use of injections; and, while the conditions demand various measures of treatment, the applications are made for the most part to produce topical effects, and hence there is no special influence extending to the surrounding parts or to the general system that calls for a detailed notice.

Injections of iodine and other medicinal substances have been used generally for local effects in producing adhesions after drawing off the contents of a hydrocele, and the occasional introduction of medicated injections into the pleural and peritoneal cavities must be considered as yet amongst the problematical resources, while there is reason to expect satisfactory developments from the judicious use of proper medication through this channel.

In treating of dropsy of the gall bladder, Dr. J. Marion Sims inculcates a resort to injections into the distended sac after the fluid contents have been evacuated. He recommends the operator to "throw in a stream of carbolised warm water through a gum elastic catheter introduced to the deepest part of the cyst." The results of such injections must be similar to those used in abscesses, and the local and general influence of these applications corresponds in the main to that of the same class of agents when brought into contact with the different mucous surfaces. Yet there is a general pervading constitutional modification

corresponding to the quality of the medicinal element employed, and this transmitted influence is the effect which is of most consequence to be duly appreciated in all cases of medicated injections.

Independent of these applications of medicines for their extended operation upon the tissues and organs, there has been strongly urged upon my attention special injections into the isolated structure of parts affected with specific diseases. It is even claimed that scirrhus of characteristic type has yielded to the use of medicated injections into its substance, and this presents at least a rich field for experiment. It is also held that fibroid tumours of the womb have been radically cured by the injection of the active principle of ergot into their deep-seated structure. As a similar result is said to be obtained from the internal use of this remedy, it is not perhaps a local effect of such an injection, but an influence which is propagated through the general system that brings about the favorable result.

Enough has been attained by injections in the indurations of various tissues and the enlargements of glandular structures to warrant further use of such measures in similar cases; and being convinced that important results may be secured from the collected experience of medical men in all classes of medicated injections, I would here suggest that systematic reports of observations be published under the following heads:

1. Hypodermic injection of medicated fluids with a view to general effects.
2. Medicated injections into glandular structures for a special influence upon the tissues of the part.
3. The injection of medicated solutions into the substance of tumors to modify their constituents.
4. Medicated injections into serous cavities for their local and general effects.
5. Medicated injections into mucous cavities.
6. Medicated injections for the obliteration of cysts and abscesses.

ARTICLE II.—REMARKS ON PRECISION IN THE USE OF TOPICAL REMEDIES. By S. BREDLER, F.R.C.S., Surgeon to the Liverpool Royal Infirmary, England.

I gladly comply with the request made to me that I should deliver a lecture on the application of topical remedies, as a good deal of haziness pervades this subject, and as it is important that one should be able to give a reason for the faith that is in him, as to why a lotion in certain cases is preferable to an ointment; why cold is indicated in one case, heat in another; when electricity is likely to be of service, and in what form; why motion is likely to prove beneficial at one time, rest at another; and so forth. And in fulfilling this task I will, as far as possible, try to show how remedies may be used with precision, and avoid allusion to agents of merely fanciful value. New remedies not unfrequently suffer from overpraise; and we see the drug which was absurdly vaunted as a cure-all fall into an equally undeserved desuetude.

I shall only speak of remedies whose action is in a great measure known, and which may consequently be employed with some certainty as to the result, and shall treat in turn of the local use of caustics, cold, heat, lotions, ointments, and pressure. And first let me speak of caustics.

The caustic agents employed in surgery may be divided into alkaline, acid, and

*special caustics*, such as chlorides of zinc and bromine. Nitrate of silver, which, *par excellence*, is called "caustic," scarcely merits the name, as it only enters into superficial combination with the fluids of the tissues, forming an albuminate of silver, the liberated acid acting, as far as it goes, like the other acid caustics which have shortly to be considered.

The *alkaline* group, sufficiently represented by caustic potash, acts very vigorously, converting the destroyed tissues into a dark and glutinous pulp. They operate by absorbing water and uniting with the oxygen or acid of the tissues, all the time dissolving the nitrogenous substances, until they finally come to rest, when a condition of equilibrium or neutrality is attained. We consequently select alkaline caustics when we desire a deep and searching action, and therefore they are suitable for the removal of warts, cheloid and other similar flat growths, or for the formation of sloughs, as in carbuncle, etc. United with lime, caustic potash becomes more manageable, and is occasionally very serviceable in destroying a gland, infiltrated with the specific virus of syphilis, when, as sometimes happens, we cannot get a suppurating bubo to heal. With the same agent I have succeeded in completely rubbing away a flat epitheliomatous growth on a man's cheek, which had become evolved from a pre-existing cheloid formation. We should always have numerous bits of blotting-paper at hand when we employ caustic potash and lime, to wipe away the black treacle-like slough which is formed, and to see that we do not penetrate too deeply. At the end of the sitting, vinegar and water should be sponged over the part to arrest further action. Largely diluted with water, the caustic alkalies are useful in checking cutaneous irritation, and in the form of lotions and injections are usefully employed in the treatment of eczema and leucorrhœa, in both of which diseases the abnormal secretion is acid.

The mineral *acids* in a concentrated form are all caustic, but sulphuric and nitric acids are those most frequently selected. They penetrate less deeply and widely than the preceding group, and are therefore especially indicated where a rapid and superficial action is needed. They act by yielding up their oxygen to the tissues, which in its nascent condition burns the carbon and finally comes to rest as a neutral salt. The acid caustics are indicated in the treatment of such sores as soft chancres, or indeed whenever we wish to destroy the surface of a sore and inaugurate a fresh mode of action. In cases such as these, when we wish to limit the caustic action very accurately, the acid should be applied by means of a glass capillary tube, and after its operation is over, iodoform should be dusted over the sore. This constitutes the best treatment for the non-infecting form of syphilitic sore. In cases of sloughing ulcers or sloughing stumps, fuming nitric acid, freely applied under the chloroform, answers better than anything else in hastening the detachment of the slough and inducing healthy action. The acid caustics may be used locally in cases of cutaneous and veno-cutaneous nævus—in the former by tattooing, in the latter variety by subcutaneous injection with a fine syringe—but I have found carbolic acid a decidedly better agent. Diluted in the proportion of two to eight ounces to a bath, the acids act powerfully upon the cutaneous capillaries, and so are energetic in bracing up and stimulating a torpid skin. For the same reason they are useful in checking sweating; sponging with Rimmel's vinegar and water being a con-

venient and pleasant mode of prescribing acid for this purpose. By virtue, too, of this principle of astringency, the acids, when diluted, are useful stimulants to indolent ulcers, or for arresting the bleeding from leech-bites, or for hardening the skin of tender feet—though for the latter purpose salt and water is a better agent; and, indeed, I should recommend those of you who contemplate an autumn walking tour to prepare for the tramp by soaking your feet in salt and water twenty minutes every day for a week before you start.

*Chloride of zinc*, introduced by Campbell de Morgan, is an efficient and valuable caustic. It acts, at the same time, as a disinfectant and deodorizer, and is especially indicated when we wish to destroy self-growth beyond the region which the knife can reach; hence its value after ablation of the breast for cancer, for it finds out and destroys numerous cells which have escaped the scalpel; and, as it arrests putrefaction for several days, it is a capital plan to inject a strong solution of chloride of zinc into deep sinuses, with or without bone at the bottom; for by this means we often succeed in destroying the living pyogenic membrane, and so put a stop to cell-proliferation. Caution is needed in employing this agent in operations about the mouth and throat, as, when swallowed, it acts as an irritant poison. In the proportion of from one to five grains of chloride of zinc to the ounce of water, we have a powerful astringent, and therefore a valuable remedy for gonorrhœa and allied disorders.

*Bromine* is a remarkable and powerful caustic; its action is not thoroughly understood, but it may be conjectured that it acts much in the same way as nascent oxygen, burning the tissues with which it comes in contact until it enters into chemical combination with them, and so comes to rest. Its action is long-continued and very painful, so that it is well to administer an anodyne prior to making an extensive application of the drug. Bromine should be mixed with spirits of wine, in the proportion of one part bromine to three parts spirits of wine. The admixture should be made slowly, and in the open air, as the fumes are very suffocating. It is principally used for destroying young cells, especially cancer-cells, when removal of the growth by the knife is necessarily partial or impossible. Applied by means of a glass brush to the os uteri in cases of uterine carcinoma, or to the tongue in the same disease, it is certainly of service in checking for a time the progress of the malady.

*Iodine* is an agent belonging to the same group, and possessing similar, but less powerful, caustic properties. It is, however, an excellent disinfectant, and, mixed in various proportions with water, is a valuable agent in cases of obstinate sinuses, sloughing sores, and freely suppurating cysts, which resist other treatment. I lately employed iodine and boracic acid in a series of cases in which there was sloughing, such as crushed and lacerated hands, and found both answered very well; but while the parts healed quite as quickly and inodourously with the boracic acid as with the iodine, there was far less pain with the former than with the latter remedy, and no weeping attendants as invariably happened when the dressings were made with iodine.

*Cold* may be employed in the form of ice, or *ice* poultices (made by mixing bits of ice with a linseed poultice), or evaporating lotions, or irrigation. Cold acts through the vaso-motor nerves upon the capillaries, constricting and even emptying them of blood, and this not merely in those capillaries immediately



in contact, but owing to the dispersion of the nervous filaments, even at a considerable distance, and thus renders the advent of congestion and inflammation physically difficult or even impossible. It should be used with some caution, as, if its action be kept up too long, it may destroy the vitality of a part, as happened lately in a case of femoral hernia, when, after operating, I applied ice with a view to prevent peritonitis; this it achieved, but produced a considerable slough of the integuments, which was a long time in healing over. The value of cold is typically seen in cases of sprain and of violent wrenchings of a joint. For example, after breaking down adhesions in cases of fibrous ankylosis, I know nothing so certain to obviate the tendency to synovitis as the immediate and continuous application of ice to the roughly-handled joint. In the same way, thin bandages, wrung out in cold water, kept cold, and applied with a fair amount of pressure, constitute the best of all treatments in cases of recent sprains and contusions. Besides causing contraction of the capillaries, cold, still acting through the trophic nerves, produces muscular contraction, to which property is due its efficacy in causing contraction of the relaxed parturient uterus; while its former property gives it value as a hæmostatic in cases of oozing from a stump or other parts after operation.

Nor should I omit to mention the value of ice as a topical remedy after operations in the region of the throat—*e. g.*, after excision of the tongue, the first twenty-four hours is a period of peculiar peril, from the tendency to inflammatory infiltration and consequent suffocation. This risk is in a great degree removed by directing the patient to constantly suck small lumps of ice. And while referring to its value in throat cases, I may mention that it is often of signal service in cases of idiopathic tonsillitis.

*Heat* is employed in the form of the cautery (actual and galvanic), and by poultices and fomentations. When we desire to combine a cutting with a cauterizing action we employ the galvanic cautery: when its cauterizing properties alone are needed, the actual cautery is selected; but there is no essential difference in the mode of action of the two. The use of the cautery may be briefly stated to be to arrest bleeding and to act as a counter-irritant. As an example of its use in the first case, I may mention its employment in excision of the entire tongue, and shall not consider it out of place to briefly describe the operation. Removal of the tongue was until lately one of the most bloody and fatal of operations; but owing chiefly to the introduction of the galvanic *écraseur*, it may now be practised with no loss of blood and with but small present risk to life. Nunneley simplified the old operation of Syme by substituting a cut through the floor of the mouth for the division of the inferior maxilla; and my colleague, Mr. Whitehead, further improved on Nunneley's plan by simply passing an armed needle through the mylo-hyoid region, and threading the tongue through the loop of wire conveyed through this aperture. Even the wound thus caused is, however, unnecessary, for by first dividing the tongue along the raphé from base to tip, by means of the galvanic wire, each half may readily be removed by a cut with the wire traveling at right angles to the first incision, and by this means the inconvenient charring of the soft parts of the floor of the mouth, through which the wire would pass in Mr. Whitehead's plan, is obviated. The actual cautery is employed to stop bleeding in all cases when

it is very difficult or impossible to apply ligatures, as after excision of the upper jaw, or after removal of piles, which are incomparably better treated by the clamp and the actual cautery than by any other plan. The value of heat as a counter-irritant is especially well seen in cases of chronic synovitis and arthritis of a more general kind. In these cases it stimulates the lymphatics and the capillaries at a considerable distance, and so excites absorption of exuded material and causes disappearance of old inflammatory thickenings and bands of adhesions. Even in pulpy degeneration of joints, when all active symptoms have subsided, the free use of the actual cautery followed by absolute rest is sometimes crowned with complete success, and it should certainly be resorted to in all such cases before practising excision.

*Poultices and fomentations* act beneficially by relaxing the capillary system, and so favor absorption; in this way they often prevent suppuration, though, if inflammatory action has proceeded beyond a certain point, they hasten the issue by this same power of relaxation. Hence, nothing is more rational than to apply poultices when an abscess is in process of formation, though their application should be at once discarded after evacuating the contained matter, and Lister's method of dressing commenced, or the plan more recently suggested by Mr. Callender. Poultices made of Iceland and other kinds of moss are sometimes recommended as possessing special properties of absorption, but I have not been able to determine whether they do in reality possess any advantage over those made of linseed-meal. The inestimable value of hot fomentations in relieving the pain of angeileucitis following a dissection-wound must not be overlooked. No one who has suffered from such an accident will be likely to do so, nor will fail to urge their employment in similar cases, always insisting on the absolute necessity of their being, like a toper's toddy, hot and strong and frequently repeated.

*Lotions and Ointments.*—To a large extent it is a mere matter of taste whether an ointment or a lotion be selected. It may, however, be stated in general terms that where large surfaces of cuticle are destroyed, as in cases of burns and scalds, ointments are preferable, inasmuch as they prevent radiation, and so, in a great measure, preserve the necessary animal heat.

Ointments, again, are chosen sometimes simply because, owing to the locality, it would be difficult to apply lotions—as, *e. g.*, in injuries or diseases about the face and the flexures of joints. When insoluble substances, too, are thought desirable as local applications, we are constrained to employ an ointment in which the drug is conveniently contained. Lotions, on the other hand, are cleaner and cooler, and generally more pleasant. They are of course very numerous—fashion, as variable in these matters as in a lady's dress, makes a drug popular for a time, to give way to some fresh rival; but, numerous as they are, they may be classed into astringent, stimulant, and sedative. Pre-eminent among the first group stands lead lotion, which, combined with spirits of wine or with opium, you see so extensively used in the wards of this hospital. Lead, when added to an albuminous fluid, throws down a precipitate, which is an albuminate of lead, and this substance it is which coats over the abraded surfaces, forming an impermeable envelope; at the same time, it constricts the capillaries. It is, indeed, this double action which renders lead such a valuable agent where there is any cutaneous inflammation to be subdued. Hence it is most useful in cases

of erysipelatous mischief, or in checking inflammation consequent upon compound fractures, or in allaying the pain of synovial and other forms of articular inflammation. When a stimulant rather than a soothing action is sought, we resort to other agents, such as our red lotion, which is composed of one grain of sulphate of zinc and five minims of tincture of lavender to an ounce of water; or to the nitric acid lotion; or, when the specific action of mercury is needed, as in cases of syphilitic sores, to the black and yellow washes of the Pharmacopœia. The sedative group, again, are best represented by the lotions which contain opium or other anodynes, combined with various ingredients of an astringent or a stimulating nature, according to the necessities of the case. Their use is clearly indicated whenever pain is severe.

I pass on to shortly consider antiseptic dressings.

*Antiseptic dressings* were introduced into the practice of surgery from a belief in the germ origin of putrefaction. This theory maintains that putrefaction, which is in its turn the cause of septicæmia, pyæmia, etc., and therefore the chief cause of death after operations, is the result of minute organisms, bacteria, etc., which absorb oxygen, and break down the tissues.

The object of antiseptic dressings is to prevent the ingress of these organisms or to destroy them if already present. The chief agent employed for this purpose is carbolic acid, which, in a saturated watery solution of one part of acid to twenty of water, is very fatal to these minute organisms. The spray, under which you see operations performed and dressings carried on, has chiefly the extrusion of these unwelcome guests in view; the carbolized gauze is employed for a similar purpose, and also because the carbolic atmosphere which it insures is inimical to the development of bacteria; but if infected air has already had free access to an open wound, then it becomes necessary, by means of chloride of zinc or the stronger solution (one to twenty) of carbolic acid, to destroy the germs already present before using the ordinary antiseptic dressings. Whatever be the final issue of the contest upon the germ theory of disease, nothing can ever imperil the stability of this mode of dressing, until, perchance, the same almost perfect results be attained by a somewhat simpler process. If the theory be finally triumphant, it seems as if it must carry with it, as a corollary or "rider," that by a thorough adoption of antisepticity in our hospitals we shall be able to exorcise the demon of "hospitalism," whether it appear in the guise of pyæmia, or erysipelas, or other septic trouble.

Of course it often happens, as in cases of operations about the mouth, or in cases of crushed hands and feet and allied injuries, that it is difficult to carry out antisepticity in its entirety; when such is the case it is still well to employ some antiseptic agent as a lotion, etc. For this purpose nothing answers better than boracic acid. Unlike carbolic acid, this agent is quite unirritating to the cuticle, while it is equally good as a disinfectant. It is only slightly soluble in cold water, but freely so in hot water, so that the best plan is to prepare a hot saturated solution, and into this dip the lint to be subsequently used. When dry the boracic acid forms a glittering crust of crystals on the lint, and this super-saturated material should be applied *over* a piece of lint wetted in a solution of the acid. This mode of dressing answers admirably in cases of callous ulcers of the leg, or in cases of lacerated and contused wounds in various situations.

## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

MASTURBATION IN THE FEMALE.—As it is often difficult to determine the manner of masturbation in the female, the determination of which is necessary for therapeutic reasons, the following case narrated by Dr. J. H. Pryor (*Buffalo Medical Journal*) may prove suggestive: The patient was a chronic masturbator who has kept up the practice for years without her relatives' knowledge. Three days ago, in a fit of despondency, caused by the fear that she had permanently ruined her health and shattered her mind by the excessive indulgence of the day before, she procured a knife and endeavored to kill herself. In consequence she was examined by a physician who found that since her fifth she had indulged in a peculiar swaying of her person in consequence of great pleasure in such movement. Latterly, if a simple task devolved upon her, she must needs resort to this act to gain the composure and steadiness necessary for its performance, and it alone ensured a sleep full of bright and radiant dreams. Of late years trouble has been the principal incentive to pollution, in her serener moments the thought of re self-abasement and wrecked life producing depression. At such times her masturbation became painfully excessive, having frequently spent hours in wild enjoyment, which was so nearly allied to pain, that it must have been associated with her mental delirium. Now there came a lull when she suffered. For four months she endeavored to be a woman, but something tripped up her resolve. This marked the commencement of a period of depression, which ended on the morning of her suicidal intent. When asked in regard to her method of pursuing this habit, she said that she could show better than she could tell, and straightway falling upon her knees before a chair, she let her elbows drop upon its seat, and grasping the arms with a firm grip she commenced a swaying, writhing motion, seeming to fix her pelvis and moving her trunk and limbs—this for a moment—then every muscle was rigid, in contraction, her face borrowed a demoniac expression; the features were contorted, the eyes rolled, the teeth set and lips compressed, while the cheeks wore a purplish flush. Thus she remained for a time a most revolting spectacle. Upon rising she explained “that it only took a moment to commence, but that the reveling lasted for a long time.” She then showed her knees which were skinned and bore old ecchymoses; also remarking that often her muscles were so lame the day after an indulgence that she could scarcely lift her hand. Not being able to understand how the orgasm could be thus produced, Dr. Pryor questioned her in regard to this point. She said that the swaying induced a pleasurable sensation, which was probably caused by suction being brought to act upon the clitoris. This suction she describes distinctly, and says that almost immediately after something

bursts, and then comes the rapture which is prolonged for an indefinite time. Probably the sensation of something bursting is caused by the discharge from the vulvo-vaginal glands. Dr. Pryor is at a loss whether the greatly-prolonged orgasm she describes is a psychological delusion or a physical phenomenon. If it be a delusion he has never discovered another. She has tried other methods of masturbation, but finds them very unsatisfactory. An examination revealed a slightly enlarged clitoris, slightly congested and tender; vagina somewhat tender; uterus normal. The patient was placed in the ward under observation; given some work, also baths, iron and light doses of pot. brom. If she chanced to speak of the irreparable injury she had done herself, a firm assurance was given her that this was not true, and that she would certainly and surely get well. At last account the improvement is very marked; she has gained in flesh, is more cheerful, complains very little of headache, and believes that she will recover. So far as can be learned she has not resorted to her old practice.

ELASTIC LIGATURE FOR THE UMBILICAL CORD.—Dr. J. J. Reid, New York (*Medical and Surgical Reporter*, December 1, 1883), says: In the majority of cases the ordinary ligature is sufficient to tie the umbilical cord, but in certain cases fatal hæmorrhage follows its use, even in the hands of competent practitioners. Hæmorrhage is most likely to occur in cases where the cord is large, and there is an abundance of gelatinous matter. In such cases where desiccation and consequent contraction takes place, sufficient pressure is removed from the vessels to permit bleeding. There is a rare class of cases where any common form of ligature of the obstetrician must be useless, and that is where there is calcification of the cord. The diagnosis of such a case will hardly be made before one or more attacks of bleeding take place. He has proved satisfactorily that a fine strong ligature tied as tight as possible with a surgeon's knot, and tied again and again in the same channel with the intention of causing as much pressure as possible, failed to prevent hæmorrhage. He thus became convinced that to prove serviceable the ligature must be elastic to compensate for the shrinkage. The method he adopted was to carry in his pocket a piece of black rubber tubing of the kind and calibre ordinarily used for drainage purposes. From the piece of tubing he cut off a ring about an eighth of an inch in length, and slipped it on the prongs of a dressing forceps. The forceps are then opened and the umbilical cord grasped about two inches from its extremity. The rubber ring is then slipped down and over the fold of cord embraced by the forceps. It is obvious that an increased amount of compression can be obtained by cutting the rubber ring longer, as the greater the amount of rubber the greater the pressure, but in his experience an eighth of an inch is sufficient.

ÆTIOLOGY OF UTERINE INVERSION.—Fuerst (*Arch. fur Gyn.*, B. <sup>lxx</sup>, [3])

thinks that the important medico-legal question in regard to the possibility of a spontaneous origin of uterine inversion has been answered in different ways. It cannot be definitely stated how frequently this form occurs in comparison with that produced by external force. Too little consideration has been paid to the fact that complete atony, at least of a portion of the uterus, is the chief condition from which inversion results, this being present, slight force, as by the action of the abdominal bandage, with certain voluntary or involuntary movements added, will result in this accident. In a case which occurred in Dr. Fuerst's experience, the inversion occurred spontaneously soon after delivery, and required much effort to accomplish restoration. The patient a primipara was greatly prostrated from loss of blood and exhaustion, but made a good recovery. The accident occurs oftener among primiparæ than is generally supposed. After a protracted labor, more common in primiparæ, weakness of the pains may be a cause of inversion, and, if a delivery has been accomplished with the forceps, the liability to the accident is increased. A placenta whose site is at the fundus is a predisposing cause, and occurs more frequently in primiparæ, just as placenta prævia is more common among multiparæ. The comparatively tense vaginal walls in primiparæ hinder inversion, and, if the accident occurs, this condition may assist spontaneous reduction. The narrower vulva in primiparæ may prevent the free discharge of blood. With the accumulation of the latter and subsequent pouring out, a force may be exerted producing inversion. Pathological growths upon the placenta, adhesions of this organ to the uterus, and adhesion of the membranes, also cause this accident.

MORAL IMBECILITY.—Dr. T. Woods reports the following case: W., six years and eleven months old, has genital organs as fully developed as in the adult, and his pubes covered with a thick crop of dark brown hair, presenting the appearance of a youth of seventeen or eighteen; hair is also commencing to grow on his upper lip. His height is about 4 feet 9 inches, and he is big and muscular in proportion. His voice, for more than a year, has been gruff and hoarse, as that of puberty, and he has had hair on the pubes since he was three years of age. He was so wild and mischievous that the magistrates placed him in an industrial school. He has now been committed for five years. He took away a tradesman's cart, upset it on the roadside, cut the harness into pieces, and galloped the horse about till he was tired of the fun, and then let it go. His clothes were taken away from him, and he was put to bed, to keep him from further mischief. He, however, managed to find his grandfather's best black trousers, cut off the bottoms so that they might fit him, and escaped through the window. One day, recently, he found some pigs straying, and drove them some miles to a butcher, and tried to sell them; failing to do so, he gave them away to some one he met. It required three policemen to take him to the workhouse (to which he was sent until

arrangements could be made for his removal to the industrial school). They had to carry him there face downward.—*Lancet*.

UNUSUAL EFFECTS OF THE BROMIDES.—Dr. E. G. Janeway (*New York Medical Journal*) mentioned a case in which hallucinations of sight had been produced by bromide of potassium. The patient, a forty-six-year-old man, had suffered from intense headaches for three months; no history of syphilis. He had taken bromides before, and said they always disturbed his vision. He was ordered fifteen grains of potassium bromide three times a day, and twenty grains at night. It was combined with the iodide in moderate doses. After a week the patient complained of seeing a third person in the room, and other hallucinations of a similar nature. The bromide was then stopped and the iodide continued. In two days all the symptoms were gone. The dose of the iodide was doubled afterward, but the symptoms did not recur. Dr. Janeway called attention to the fact that delirium was often referred to the disease, when in reality it was from the drugs employed in treatment. This was noticeably the case with salicylic acid or salicylate of sodium, morphine, and wintergreen. Dr. Winters had seen a case in which hallucinations of sight had been caused by immense doses of the bromides. They had preceded the other symptoms of bromism. The patient took at one time six drachms in twenty-four hours. The dose was reduced to ninety-five grains a day, when œdema of the lungs developed, but he finally died of heart-failure. Dr. Winter had seen another case in which forty-grain doses three times a day had produced the hallucination of threads hanging all about the patient, at which he was constantly picking.

FUNDUS OCULI IN EPILEPSY.—An unusual opportunity was recently afforded (*Polyclinic*) Dr. Hansell of examining the fundus oculi just after a fit. A girl aged 10 years was sent from the Department for Nervous Diseases to the Eye Department, that the eyes might be examined, as an aid in diagnosis. As soon as she was brought into the dark room she had a convulsion, presumably induced by fright. She fell back, became unconscious, with the muscles of the face contracted and features distorted, head drawn forcibly to right side, thumbs strongly flexed on palms and palms slightly everted. The attack continued about a minute, and closely resembled a puerperal convulsion. After it had passed away, she seemed exactly as before, experiencing no pain or discomfort. The eye-ground was immediately examined by the direct method, and not the slightest deviation from normal could be discovered. There was no congestion. The veins showed not the least extra pulsation. The case is not worth much; it was not one of pure epilepsy, and at that age epileptiform attacks result more often than in the adult from the impressionability of the motor centres of the child.

BACKWARD DISLOCATION OF THE THUMB.—Dr. A. B. Hirsh (*Poly-clinic*) has found of value in this luxation an easy and useful combina-

tion of two older methods—Crosby's right-angled motion and the ordinary side-to-side extension and counter-extension. The combination proved entirely successful in two cases. The first was that of a young man who, while trying to catch a ball falling from a considerable height, received it upon the palmar surface and end of the left thumb, causing a simple dislocation of the distal phalanx upon the dorsum of the adjacent phalanx. Extension and counter-extension were made unsuccessfully by hand, by the Levis apparatus (which latter had been used successfully in previous cases), by the clove hitch knot, by Charrière's forceps, and also by Dr. Crosby's plan of putting the opposing phalanges at a right angle. Section of the ligaments having been proposed to the patient and objected to, some other mode of reduction was necessary. Pulling on the dislocated phalanx, meanwhile steadying the next one by my other hand, Dr. Hirsh, by a sudden swinging outward, was enabled to tilt the *inner* and proximal angle of its base on top of the corresponding head of the next phalanx, by which an obtuse angle was formed. This position gave a purchase which easily allowed of complete reduction by manipulation, so that the usual after-treatment restored complete use of the joint. In the second case the injury from the same cause and in the same position was complicated with oblique fracture downward and inward of the head of the phalanx. Motion of the fragments rendered all attempts at reduction unavailing. The only alternative, other than section of ligaments or removal of bone, was the leverage plan just mentioned, except that the fulcrum in this instance was the *outer* half of the head of the next phalanx. This was, after some effort, successful, and, although redundant callus delayed recovery, the the man now finds no difficulty in working with the hand.

RECIPROCAL INSANITY.—Under this title Dr. Parsons (*Alienist and Neurologist*) discusses the psychological phenomenon which the French call *folie à deux*, the English double insanity. Dr. Parsons says insanity may arise reciprocally in various ways, as : *First*. From identical causes acting at the same time and under similar circumstances on individuals of like susceptibilities, who are in close sympathy and intimately associated, the mental disturbance excited in each immediately reacting upon and increasing the mental disturbance of the others. *Second*. From insane delusions being entertained by one of two or more predisposed persons in intimate relation with each other, and the deluded person acting as a cause of the development of similar, or identical insanity in the others, and mutual reactions taking place. *Third*. Through emotional influences ; as when one subject of a convulsive form of nervous disease, or of a form of insanity characterized by emotional disturbance, is intimately associated with persons of similar temperament and susceptibility.

FUNGUS ENDOMETRITIS.—Dr. Brennecke (*Archiv. fur Gyn.*, B. xxi.)



believes that there are two varieties of fungus endometritis, properly so-called, a glandular, in which overgrowth of gland tissue is the most marked change, and an interstitial marked by overgrowth of connective tissue. The interstitial appears in young people, the glandular in old.

These cases are dependent on bio-chemical ovarian disturbance, which, as a reflex effect, causes chronic uterine mucous membrane hyperæmia, and these lead to hypertrophy. There is another type distinct from the two last mentioned, which is a purely local affection, and, finally, there is what Dr. Brennecke calls the decidual type, due to abortion. In the first type the curette is of great value when combined with tonic medication. In the uterine form hæmorrhage exists from the beginning; in the ovarian menstruation is at first deficient or absent. In the uterine form relapse is not much to be feared; the ovarian has strong tendency to relapse. The fragments removed by the curette are smaller in the uterine type than in the ovarian; those in the ovarian type show the structure of hypertrophied mucous membrane. The decidual type is often cured by a single application of the curette.

PURPURA FROM QUININE.—Dr. Wigglesworth (*Boston Medical and Surgical Journal*) reports a case of a woman who, one hour after taking a one-grain dose quinine, noticed a scarlet, non-elevated irregular circular patch, the size of a silver half-dollar. On taking eleven more grains the spots increased in number. When the quinine was discontinued the spots desquamated and disappeared.

DEAFNESS FROM QUININE.—Dr. M. Landesberg (*Medical and Surgical Reporter*) reports the following cases of deafness from quinine: The first case was that of a stout, but somewhat anæmic lady, who was under treatment for serous iridochoroiditis. In the course of the treatment she was ordered three grains of quinine sulphate, with five grains of iron lactate at a dose, to be taken three times a day. She became "stone deaf" next day, to all appearances, in consequence of the use of the powders prescribed. Before her hearing had always been very fine. Shortly after the ingestion of the second powder she had felt some dizziness and fullness in her ears; she could not say that her hearing had diminished, but she had the sensation as if the voices heard were husky and came from far off. She compared the sensation to that of having the ears filled with water and hearing people speaking. In the course of the afternoon slight headache set in, and the hearing diminished considerably. Before bedtime she took the third powder, and awoke the next morning, after a night of sound sleep, unable to understand the voice of her room-mate. The head was absolutely free, and there was no other trouble but the sensation of fullness in the ears. After eight days of rest Dr. Landesberg prescribed to the patient three powders of pure quinine sulphate, in three-grain doses, to be taken in capsules. After the first powder, taken at eight o'clock in the morning, the patient felt slight

dizziness and headache, with the sensation as if the blood was rushing to the head, and as if the face was flushed, which, however, was not the case. At ten o'clock she took the second powder. Half an hour later the sensation of fullness in the ears set in and the power of hearing rapidly diminished, so that towards evening she heard the ticking of her watch only at four inches distance. At nine o'clock P.M. she took the third powder and went to bed. The sleep was sound. In the next morning the noises in her ears were very troublesome, and she could hardly hear whispering close by. The recovery was complete. Case 2 came under treatment for furuncles of right auditory canal; general health poor and appetite bad; sleeplessness and nervousness; no history of malaria; hearing was normal in either ear. The affection was treated according to the indications. He was given a combination of iron with quinine—ferri hydrogenii redacti, and chin: sulphur. ad gr. iij. at a dose three times a day. After a three days' use of this remedy fullness and ringing in the ears developed, with gradual diminution of hearing. Notwithstanding the symptoms grew worse every day, patient continued the powders for five days longer, to present himself only at the appointed time. Hearing was reduced in either ear to hearing a loud voice close to the auricle. There was no pain and no change in the condition of either drum-membrane. Inflation of ear, by means of Politzer's air-bag, did not improve hearing and did not diminish the ringing noises in the ears, which however caused but little discomfort to the patient. Complete recovery within three days set in spontaneously after the further use of quinine had been discontinued.

COLD BATHS IN PNEUMONIA.—Bruguetelli (*Italia Medica*, 1883, p. 293) concludes that the objection of the patients to cold baths are easily overcome. The convalescents cured by this means soon induce the others to submit. The pneumonics bear bathing well, and in Dr. Bruguetelli's experience collapse has never occurred. Advanced age even, in his opinion, is not a necessary contraindication to their use. The pulse in general relaxes; respiration remains the same. Bathing calms the patient and calm slumber often results. The cold bath produces a notable and permanent lowering of the temperature.

QUININE IN PERTUSSIS.—Poskin (*Annales de la Soc. Med.-Chir. de Liège*) has employed quinine tannate in twenty-eight cases, and found that it invariably shortened the spasmodic stage and diminished the intensity of the paroxysms. He gives large doses of quinine toward evening within the space of half an hour.

MUSCULAR HÆMATOMA.—Dr. H. E. Sargent reports the following case in the *Lancet*. Mrs. B—, aged forty-five, weighing 220 pounds, fell on a zinc pail, its edge striking the abdomen two inches to the right of, and on a level with the umbilicus. A day or two after the fall a tumor,

semi-elastic, with distinct outline, could be traced at the seat of injury. It was only slightly tender, and appeared to have deep-seated attachment. In a little less than three months the skin over the tumor began to discolor. Poultices were applied, and at the end of another week it commenced to slough. Gradually a black mass was disclosed, revealing the true nature of the tumor, which was evidently a blood-clot. This gradually became enucleated, and in due time was turned out, leaving a chasm in the abdominal wall four inches wide by three deep. Cotton wool steeped in carbolized oil was used to plug the cavity from the bottom, which rapidly closed. The case is interesting from its rarity, and the complete recovery, under a strictly expectant plan of treatment, aiding the *vis medicatrix naturæ*. The fall must have caused muscular rupture at the seat of injury, with subsequent hæmorrhage into the cavity thus formed.

TREATMENT OF PNEUMONIA.—Bamsler, University of Freiburg, Baden, directs his efforts chiefly towards sustaining the patient's strength until the disease leaves him (*Medical Record*). The pyrexia being a chief cause of exhaustion, he endeavors to keep down the body-heat, which he does by cold baths, wet packing and quinia in 15 to 20 gr. doses, in the evening, or grains 60 to 80 of sodium salicylate within an hour in the middle of the night. The patient's diet must receive careful attention; be sufficiently nourished by broths, beef tea, milk, and a half to a pint of light wine, in twenty-four hours. When there are pleuritic pains, an ice-bag is applied to the chest. Restlessness, great pain or diarrhœa, is to be met by morphia or Dover's powder. If bronchial catarrh is a prominent symptom, ipecacuanha in infusion is administered. He never employs sweet spirits of nitre in pneumonia.

ABSCESSSES.—Mr. Nairne concludes (*Glasgow Med. Jour.*): 1. The early years of life are those in which abscesses are most common. 2. Both sexes are equally subject to abscesses. 3. The upper part of the body is the commonest site of abscesses in the female sex. 4. The lower part of the body is the commonest site in the male sex. 5. The parents of such as have suffered from severe abscesses are themselves (either one or both) phthisical or strumous. 6. The average duration of treatment of curable abscesses is two weeks. 7. Abscesses fall naturally into two divisions—*a*. Simple. *b*. Indicative. 8. Simple abscesses require little treatment; have a tendency to spontaneous cure. 9. Indicative abscesses require great attention; have no tendency to cure, but rather to become chronic. 10. Indicative abscesses indicate constitutional affection—*a*. Of the osseous system. *b*. Of the glandular system, or of the cellular or any tissue other than osseous. 11. The constitutional affection of the bones is the least fatal.

VENESESECTION IN CARDIAC DISEASE.—Dr. Fenwick (*Lancet*) sum-

marizes his experience in the taking of blood in heart affections, as follows: 1. In cases of valvular stenosis, if dyspnoea or pain or urgent symptoms be present, bleeding is generally useful; that it appears to be better to bleed often if necessary, but to take only small quantities each time, and this by means of leeches or the cupping glass direct from the cardiac region. 2. In cases of valvular incompetency, if urgent dyspnoea or cyanosis or stupor be present, it appears best to bleed freely from the arm to about 16 or 20 ounces if necessary, and, if possible, once for all. 3. In cases of acute pericarditis and endocarditis the attack may possibly be cut short by freely cupping the cardiac region at once. In cases of cardialgia, without any evident cause, leeching or cupping over the heart's area will probably give relief.

FUNCTIONAL CARDIAC MURMERS.—Dr. Shattuck (*Western Lancet*) says that the true cause of cardiac murmurs, especially those ordinarily called "functional," not being fully understood for practical purposes, a practical classification is needed. Clinically, then, murmurs may be divided broadly into the serious and non-serious. Even if there be included in the latter group some murmurs which are truly organic, no harm is done, inasmuch as an injury to a valve which is so slight as to be followed by no other evidence of disturbance of the circulation after the lapse of six months or a year cannot be of any consequence. The differential diagnosis may be tabulated thus: The serious murmurs occur at any time in the cardiac revolution; are apt to be associated with rheumatism or its history; have definite lines of propagation; are persistent; involve well-marked enlargement of the heart. The non-serious murmurs are systolic in time; are usually associated with anæmia, fevers, chorea, or respiration; have no definite line of propagation; are usually transitory; involve no marked enlargement of the heart.

A CASE OF SUPPOSED DISLOCATION OF THE TENDON OF THE LONG HEAD OF THE BICEPS MUSCLE.—In *The American Journal of the Medical Sciences* for January, 1884, Dr. J. William White records a case of this very rare form of luxation, and reviews the history of the few other cases in which this accident is supposed to have occurred. He finds that the recorded evidence of the occurrence of dislocation of the tendon of the long head of the biceps muscle may be divided into two general classes: 1. The reports of clinical cases in which certain symptoms were referred by the writers to this displacement, but in which its existence was not otherwise confirmed. 2. The reports of cases in which the tendon of the biceps was found luxated at an autopsy, or during a dissection, but in many of which no clinical history was obtainable. The study of the literature of the cases recorded leads to the conclusion that although for more than a hundred years cases of supposed luxation of the tendon of the long head of the biceps muscle have been reported or alluded to by surgical writers, yet they have been so poorly observed,

or so carelessly described, that they fail altogether to carry conviction, the one case (Soden's) which possesses any strong element of probability being itself open to reasonable doubt. The symptoms in Dr. White's own case, which led him to the conviction that there had been true traumatic luxation of the bicipital tendon may be enumerated as follows: 1. The recognition of the bicipital groove, empty, which, if its existence be admitted, is pathognomonic. 2. Recognition of the tendon itself. 3. The inward rotation of the arm. 4. A slight depression under the tip of the acromion, a prominence of the shoulder in front, and a flattening behind. 5. Diminution in the vertical circumference of the shoulder. 6. Shortening of the arm as measured from the tip of the acromion to the external condyle. 7. Elevation of shoulder, tilting up of acromion, and elongation and narrowing of axilla when the arm was carried upwards. 8. The peculiar depression situated over the bicipital groove. 9. The line of ecchymosis following and strictly limited to the course of the biceps muscle. 10. A creak or "squeak," heard distinctly on carrying the elbow away from the side. 11. Flexion of the forearm on the arm was painful, the pain being sharp lancinating, and felt at the front of the shoulder; flexion during supination was much more painful than flexion during pronation. 12. When extension of the forearm was attempted, a tense line along the edge of the biceps could be both felt and seen. 13. The pain felt over the joint was also felt along the line of the biceps as far as its insertion, and the patient still has a "drawing" sensation over that region. 14. The arm was preternaturally mobile for some time after the accident. 15. The position of the patient after the accident. 16. The character of the force producing the difficulty. The *rationale* of these symptoms is very fully explained.

MULTIPLE CUTANEOUS ULCERATION.—In the number of *The American Journal of the Medical Sciences* for January, 1884, Dr. I. Edmondson Atkinson records a case of universal interest and almost unique character, which is closely related to that rare and remarkable disease known as symmetrical gangrene. The symptoms were briefly a papulation and vesiculation, followed by a very superficial destruction of the epidermic structures and the most external dermal tissue. This was followed, more or less rapidly, by ulceration of progressive character, so that, in the highest degree, in a very short time, not only muscle, fibrous tissue, and cartilage, but even bone was destroyed. At no point was there gangrene in mass, if we may exclude the secondary destruction of bone, but, on the other hand, rapidly progressive and molecular gangrene. This ulceration, while showing a tendency to affect similar parts of corresponding members and regions, could hardly be termed symmetrical. The right side of the face suffered much more severely than the left, while the left upper and lower extremities were decidedly more affected than those of the right side. The extent to which motion and sensation were impaired was indeterminate. The child lost the power of locomotion, but whether

from diminished nerve influence directly, or from increasing general debility, was not evident. Certainly there was no complete paralysis. Similarly with sensation, it was difficult to determine the true condition. That there was abnormal sensation was certain, but whether there was itching or paræsthesia was a matter of doubt. There were no scratch marks, nor was any expression of pain elicited upon handling the parts. On the other hand, there can be no doubt that the sensation of pain was decidedly blunted, as shown by insensibility to quite rough usage, and by the violence with which the child bit and rubbed her extremities, even to the production of lesions and the copious discharge of blood. This bluntness of sensation extended beyond the area of lesions, and amounted to a decided numbness. Distinct symptoms of vaso-motor disturbance were not observed; the description of the mother, however, that the extremities became dry and wrinkled, is of significance, though it must be admitted that this was not observed while the child was under treatment. The color of the child's skin would also doubtless interfere with the recognition of vaso-motor phenomena. As causes of this remarkable condition, Dr. Atkinson was able to include mercurial intoxication, and that from ergot or other medicaments which occasionally excite gangrene or destructive ulceration in those into whose bodies such agents have been introduced. Dr. Atkinson thinks there can be no doubt that the disease belongs to the group of affections which the late Oscar Simon first named "multiple arthritic gangrene." According to Simon, it attacks, almost exclusively, children between one and two years old, and begins with vesicles which dry into scabs. These fall off and leave a loss of substance of varying depth, in some cases even reaching to the bone. In all cases cachexia may be recognized. He regards the process as a gangrene produced by a cachectic thrombosis. It is not unlike the forms of gangrene produced by ergot, morphia, or in the course of diabetes, typhus, or in paraplegics. The prognosis is good. The treatment should be principally of a tonic character. In the absence of definite knowledge of the pathogenesis of these and kindred lesions, and in view of the unmistakable vaso-motor disturbances observable in the more pronounced forms of the affection known as symmetrical gangrene of Raynaud, Dr. Atkinson thinks we can do no better than provisionally accept the theory of Weiss, according to whom the disease is a neurosis, in which the vaso-motor centre is, from whatever cause, readily thrown into a state of hypertonus; the importance of the symptoms depending upon the dignity of the parts upon which the vascular spasm is developed. Contraction of the cutaneous arteries will produce a bloodless condition of the skin. By venous spasm is produced local cyanosis, and by contraction of vaso-dilators local active hyperæmia. Similarly, by vascular spasm of those portions of the posterior columns standing in functional relation with the skin, will be produced nutritive disturbances of the skin and epidermic structures.

THE VISUAL AREA IN THE BRAIN DETERMINED BY A STUDY OF HEMIANOPSIA.—Recent research in cerebral physiology has been directed toward the subject of the localization of sensory areas on the cortex of the brain, and has been productive of many very interesting discoveries. The investigations of Wernicke and Stilling in the anatomy of the brain, and the observations of numerous pathologists in cases of hemianopsia have confirmed in such a striking manner the conclusions of the physiologist. Munk, regarding the cortical area governing vision, that a summary of the facts made by Dr. M. Allen Starr, in the January number of *The American Journal of the Medical Sciences*, deserves attention. A knowledge of these facts is necessary both for the exact examination of cases and for an accurate record of autopsies; as it seems probable that many errors in the past have been due to the imperfect investigation of symptoms and of lesions. From an analysis of 32 recorded cases with autopsies, Dr. Starr reaches the following conclusions regarding the pathology of hemianopsia: Lateral homonymous hemianopsia may be produced not only by a lesion of an optic tract, but also by a lesion situated either in the pulvinar of one optic thalamus; in the posterior part of one internal capsule or its radiation backward toward the occipital lobe; in the medullary portion of the occipital lobe; or in the cortex of one occipital lobe. Extensive or multiple lesions involving two or more of these portions of the brain produce the same symptom. Hence, a lesion in the course of the optic fibres of one side, at any point between the optic chiasm and their termination in the cortex of the occipital region, produces partial blindness of both eyes. It is, therefore, justifiable to conclude that the occipital lobe of each side is in anatomical and functional relation with both eyes; in such a manner that the like-named sides of both retinae are connected with the like-named hemisphere, *e. g.*, the right sides of both retinae with the right hemisphere, and *vice versa*. When a lesion of one hemisphere involves the optic fibres at any point, partial blindness of both eyes, and not blindness of the opposite eye, is produced. Any form of brain lesion, abscess, embolic softening, hæmorrhage, tumors, chronic meningitis, if located in the course of the optic fibres or on the surface of one occipital lobe, may produce hemianopsia. The symptom is not due, therefore, to the shock of an apoplexy or embolism, nor to an increase of intracranial pressure, as cases occur in which neither of these conditions is present. It must, therefore, be regarded as a symptom indicating a local circumscribed lesion of one hemisphere, and not a general symptom (such as headache or coma) of brain disease. A study of the cases cited leads to the inevitable conclusion that the visual area lies in the occipital region, that the symptoms other than visual cannot be referred to any lesion except to that of the occipital lobe, and that the right occipital lobe receives impressions from the right half of both eyes, and the left occipital lobe from the left half of both eyes. With these facts in view the question arises, Are there any means of locating the lesion present in a case of hemianopsia?

Reference is here made to lateral homonymous hemianopsia. All other forms are due to a lesion of optic chiasm or optic nerve. A review of the cases and a comparison of symptoms with lesions will demonstrate that this is impossible. The lesion producing the hemianopsia may lie at any point in the course of the optic fibres from the chiasm to the occipital cortex, and in all cases the character of the hemianopsia may be the same. It is only from a study of the accompanying symptoms, therefore, that the lesion can be located. But each of the other symptoms may be due to lesions situated at various points. If it can be proven from a study of the other symptoms that the lesion must be in one definite position, and at the same time a lesion in that position would intercept the visual tract, a probable diagnosis may be reached.

TRISMUS NASCENTIUM.—In an elaborate paper in *The American Journal of the Medical Sciences* for January, 1884, entitled “Trismus Nascentium, or the Lockjaw of Infants, its History, Cause, Prevention, and Cure; Illustrated by Cases and Post-Mortem Examinations, with a Statistical Table of 229 Deaths,” Dr. J. F. Hartington supports the theory advanced by the late Dr. Marion Sims, that the symptoms are due to the effects of mechanical pressure on the brain by displacement of the occipital or parietal bones as the result generally of decubitus, and that they may be relieved simply by rectifying this abnormal displacement, often by change of position in lying alone.

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## ORIGINAL TRANSLATIONS.

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THE DIAGNOSIS OF DOUBTFUL CASES OF PULMONARY PHTHISIS BY THE PRESENCE OF BACILLI IN THE EXPECTORATION. By PROFESSOR G. SÉE (communicated to the Academy of Medicine, December 4, 1883). Translated from the *Progrès Médicale* of December 8, 1883, by H. McS. GAMBLE, M.D., Moorefield, W. Va.

### I.—PATHOLOGICAL UNITY OF PHTHISIS.

Since the immortal works of Laënnec, we ought no longer to admit, under the name of pulmonary phthisis, of more than one species of pulmonary phthisis—tubercular phthisis, but with varied forms, to wit: 1st, the granulation called miliary, be it in the lung or be it generalized in several organs; 2d, gray or yellow tubercle; 3d, gray or yellow infiltration; 4th, the caseiform state which constitutes the first phase of destruction of the lung. All these forms are but stadia of the same process, and, since the excellent works of Cornil, of Hérard, of Graucher, and above all of Charcot, the unity of phthisis is clearly established. But at all of these periods the evolution of the disease may cease; there is then a production of fibrous tissue, which is equivalent to a cure more or less definitive.



## II.—EXPERIMENTAL UNITY OF PHTHISIS.

The experimental pathology of phthisis inaugurated by M. Villemin demonstrates that, whatever may be the mode of inoculation employed, whatever may be the tuberculous product inoculated, the result is always the same; there is developed in the animal a tuberculosis, sometimes polymorphous but always identical with itself, always indefinitely reinoculable, and reproducing always, even in employing only an extremely minute quantity of morbid matter, the tuberculosis under some one of its forms. There is, then, therein a special character, as Laennec had affirmed, but there is added thereto a new idea, that of specificness.

From specificness to virulence is but a step; it has been taken. It is not a question here, in fact, of a common poison acting in proportion to the dose employed. Everything leads us to suppose that it is a question of a micro-organism which operates by multiplying itself indefinitely. The reality of this hypothesis has been established by the communication of Koch, the 24th of April, 1882, to the Medical Society of Berlin, in which he showed the tubercle bacillus.

## III.—MICRO-ORGANISM OF PHTHISIS. THE TUBERCLE BACILLUS.

Sought for about the year 1877 by numerous observers, among others Klebs, Schüller, Rindstaedler, this bacillus had been confounded with common organisms, incapable of reproducing the disease unless there is added thereto, as Deutschman did, solid tuberculous particles. Aufrecht, Rindfleisch, had observed in the giant cells micrococci isolated and in zoöglœic masses, elements found again by Malassez and Vignal and Renault (of Lyons). Baumgarten affirmed the existence of the bacilli without being able to demonstrate them clearly. Koch, finally, by a special technique, rendered evident the constant existence of the tubercle bacillus in all the products of the tuberculosis, and assigned to them certain reactions absolutely characteristic.

1. All the products called tuberculous, solid or liquid, contain bacilli, in greater or less quantity, whether they come from the walls or from the contents of a cavern, or from the expectorated matters, or even—in the case of urinary tuberculosis—from the kidney itself or from the urine, as well in the crude tubercle as in the caseous mass.

In *scrofulous lesions* as in *surgical lesions*, in adenitis, in osteitis called tuberculous, they have been found, though in smaller quantity than in the lungs. Buckhard and Krause, Marchand, Bouilly, Cornil, have equally demonstrated them in lupus, although in small number. Finally, in all animals attacked with spontaneous tuberculosis. Koch has discovered them in apes as well as in horned animals, dead of *pomelière*, and in every case the inoculation of these products gave rise to an ordinary tuberculosis.

2. The tubercle bacillus presents a certain number of reactions which are peculiar to it and which it shares only with the bacillus of leprosy. If, following the procedure of Ehrlich, and it is that of which we have made use in our researches upon the expectorated matters of the subjects of phthisis, we strongly color the tissue, or even the liquid spread out in a thin layer upon a narrow strip,

with a layer of fuchsine in solution strongly alkalized by the oil of aniline, and which is then decolorized by immersion of the preparation in water containing a third part of nitric acid, all the formed elements, tissues, or microbes whatever, are decolorized, whilst the tubercle bacillus alone remains colored red. If, then, we color the preparation anew by means of methylene blue, all the elements assume a bluish tint, save the tubercle bacillus, which preserves its red color and thus stands out clearly on the blue ground. This character depends perhaps, according to Ehrlich, upon a special envelope of the bacillus. The bacilli thus revealed present themselves under the form of extremely slender bâtonnets, the length of which equals the fourth or the half of a red globule. Sometimes they contain spores; they are often fragmentary; sometimes they affect the appearance of chaplets; they are also accompanied by rounded elements having the same color reactions, whether isolated or under the form of zoöglœa. They can live and multiply only between 38° and 40°.

3. Virulence is a function of the bacillus; it alone is capable of reproducing tuberculosis. *a.* The demonstration has been made by Koch, who succeeded in isolating and cultivating the bacillus in the blood serum of the ox, heated during six days, every day for one hour to 38°, then for several hours to 65°, until it is coagulated, and finally sown with fragments of tuberculous matter. *b.* The inoculation of these bacilli into animals of the most diverse natures (cobayes, rabbits, rats, mice, cats, dogs) has always produced tuberculosis, more surely even than the direct tuberculous matter. *c.* In the absence of the bacillus, every inoculation remains unfruitful, as Baumgarten has just demonstrated (*Centralblatt*, 1883, No. 42) in the most rigorous manner. The inoculation into the anterior chamber of the eye of a rabbit fatally produces tuberculosis if a product has been selected containing bacilli, whilst every product not containing them gives rise to nothing under the same circumstances.

#### IV.—THE DIAGNOSTIC VALUE OF EXPECTORATION CONTAINING BACILLI.

*a.* Whatever may be the stage of the disease, the expectoration of the subjects of phthisis contains bacilli; it is the characteristic, the signature of tuberculosis. Their presence clearly established allows us to affirm that we have to deal with a tuberculous subject, and, as to variety, with a case of pulmonary phthisis. Inversely, if the repeated examination of the expectoration of a patient does not enable us to establish the presence of bacilli; it may be affirmed that it is not a case of tuberculosis. On the other hand, the inoculation or inhalation of bacilliferous expectoration reproduces the disease in the clearest manner. *b.* We have practised the examination of the expectoration of our patients in making use of the procedure of Erlich, which we have indicated above. It is necessary to be careful to select for the examination the most opaque parts of the centre of matters expectorated.

#### V.—INVESTIGATION OF BACILLI IN CASES OF CONFIRMED PHTHISIS. HISTORY.

Near the beginning of his researches, Koch examined the expectoration of a very great number of cases of phthisis, as well as that of subjects attacked with

other affections of the chest. In more than half of the patients of the first category he demonstrated them in very great numbers, whilst in the second he never met with them. Besides, he saw that inoculation of the expectoration separated from the saliva, often septic in itself, reproduces the disease, even if the expectoration has been dried for from two to eight weeks.

*Divers researches.*—After Koch, researches have been multiplied throughout the entire world. In twenty-six cases of phthisis Ehrlich always found the bacillus. Balmer and Frantzel have studied in great detail one hundred and twenty cases of phthisis, and one hundred and twenty times they found the bacillus, whilst it was wanting in all the other pulmonary affections examined comparatively. According to these authors, in general, an expectoration containing a large number of bacilli indicates a grave case, although there is nothing absolute upon this point; sometimes, in a patient attacked with miliary tubercles (granulic), the expectoration scarcely contains any, while that which proceeds from an old cavern, in a case of phthisis developing slowly, will contain an enormous quantity. The febrile state does not seem to have any great influence, unless the fever coincides with a sudden onset of ramolissement of the caseous masses. Hence, the irrefutable diagnostic value, whilst the prognostic value is more variable.

Since these authors, researches have multiplied everywhere, as well in Europe as in America. But it results from a statistical work, read by Ferguson before the Society of Massachusetts, in June, 1883, that, in a total of 2,509 cases of phthisis in which search was made for bacilli, they were found 2,417 times, and, in the greater part of the negative cases, the examinations have not been sufficiently numerous to permit of affirming the absence of the parasite.

#### VI.—BACILLI IN DOUBTFUL CASES OF PHTHISIS.

The examination of the bacillus allows us to complete and often to forestall the methods of investigation ordinarily employed to establish the diagnosis of those cases of phthisis difficult or impossible to recognize. We will divide these cases into three categories :

*a. Cases of latent phthisis* betraying themselves only by functional respiratory troubles—cough dry or catarrhal, hæmoptysis with or without fever, with or without emaciation—without any characteristic physical sign. In these cases the examination of the expectoration enables us to make the diagnosis.

*b. Larval phthisis* (larvée).—Sometimes phthisis makes its début with an explosion, and puts on the mask of an acute disease—pneumonia, simple lobar, pleurisy, acute bronchitis or accidental laryngitis. Without the aid of a microscopical examination of the expectoration, the diagnosis is impossible.

*c. Pseudo-cavernous phthisis.*—The clear determination of a cavern does not always mean pulmonary tuberculosis; sometimes a tumor, a neoplasm, ulcerated syphilitic gumma, or finally a chronic catarrh, asthma, bronchial dilatation, will present absolutely the signs of a cavern of phthisis to that degree that the diagnosis is impossible without the help of an examination of the expectoration, which allows us to discern the true nature of the lesion in question.

## VII.—LATENT PHTHISIS.

1. *Phthisis with the form of dry catarrh*, characterized by a little irregular cough with scanty expectoration, without fever, without stethoscopic signs. The diagnosis is impossible; but when the expectorated matters contain a few opaque fragments we may find the bacillus, as Lichtheim did, in a case of fifteen days' standing. It is not necessary, in fact, that the tubercle be softened in order that the bacillus may appear in the expectoration, it may come from the bronchial follicles and be eliminated with the mucosities secreted by the bronchiole. Celli and Guarini have observed at the Clinique at Rome fourteen such cases which, diagnosticated solely by the expectoration, developed ulteriorly and confirmed the diagnosis.

2. *Phthisis of the hæmoptoic form*.—Hæmoptysis may be the first sign of phthisis, and precede by a long time all others. These cases have often been considered without proof as of arthritic origin: first error; in the second place, it has been pretended that they alone recover: second error. There is, in fact, a very large number of patients with phthisis who stop at this stadium and get well after having had attacks of hæmoptysis. Hiller claims out of three cases to have found the bacilli twice in the blood of the initial hæmoptysis in persons otherwise absolutely sound. At first very rare, they increased in proportion as the disease defined itself. This is still another proof of the falsity of the theory of phthisis *ab hæmoptoe*. Cramer, Celli (*Centralblatt*, 1883) describe analogous facts. Finally, we have observed a case of it of the most marked character. It is that of a young girl in No. 12 Ward, Sainte Jeanne, sick since a week only, who has had a considerable hæmoptysis at the début, and presented at the time of her admission only a few subcrepitant râles at the apex of the right lung, attributable to the catarrh or to the extravasation of blood. The microscope showed some bacilli, and the diagnosis was established. To-day, after a month, this patient has all the signs of a pulmonary excavation, and her expectoration always contains bacilli.

2. *Miliary phthisis* often presents such analogies with typhoid fever that a diagnosis is impossible in the absence of localization clearly pulmonary. If, then, there exist râles, dry or moist, disseminated in the lungs, the patient will most likely expectorate, and the doubt will be removed by the examination of this expectoration. If, on the contrary, there is only an excessive congestion with râles, the diagnosis, positive or negative, can still only be made by the expectoration. Wipham discovered bacilli in the expectoration of a patient with albuminuria without there having been any physical signs; the necropsy showed the existence of miliary granules at different stages.

## VIII.—CONCEALED PHTHISIS.

1. *Phthisis under the form of lobar pneumonia*.—A young man, nineteen years of age, in Ward Saint Christopher, No. 17, was taken, the 13th of September, with a pneumonia of a frank aspect which occupied the upper two thirds of the right lung. At the end of nine days, defervescence not taking place, the expectoration was examined; it contained bacilli in great numbers. Early in October

all the signs of an excavation were determined. Cochez describes an analogous case in his memoirs. Finally, in the patient in No. 4 Ward, Saint Christopher, who presented all the signs of a frank pneumonia, but who did not reach a state of entire defervescence, the examination practised twice showed only common microbes in great numbers; at length, a third examination enabled us to determine the presence of a small number of the bacilli of tubercle. Shortly after the local signs came to confirm the diagnosis.

2. *Phthisis in the form of acute bronchitis*.—These cases are often very difficult, sometimes impossible to diagnosticate at the beginning without a histological examination. Such is the case of the patient (Ward Saint Christopher, No. 1), aged 18 years, sick only for the last three weeks. After getting chilled he had a hoarseness and some fever, then began to cough. On his admission we found on the right side some rudeness of expiration, and sibilant râles in the whole chest, and some more moist râles in the left supra-spinous fossa; the temperature was 40°. The expectoration contained numerous bacilli. After eight days the temperature fell; the râles had disappeared. One might have believed the patient cured and the diagnosis erroneous when, after a few days, at the apex of the right lung, in front and behind, true moist crepitations were observed; then the fever reappeared, and soon a gurgling could be perceived, a proof of the existence of a pulmonary cavity. The case of Cochez (service of M. Hayem) has reference to an old man who had only been coughing for fifteen days, and presented only a sonorous ronflement. Bacilli in the expectoration. Three days after he died; both lungs were full of granules, and at the right apex there existed a little cavern.

3. *Laryngeal phthisis*.—Fräntzelen cites ten cases and Cramer one. In No. 20, of Ward Saint Christopher, is a man forty years of age suffering for the last few weeks with a laryngitis, impossible to attribute to alcoholism rather than to syphilis, to cold rather than to tuberculosis. The histological examination showing in the expectoration, moreover extremely scanty, very numerous bacilli, permits the diagnosis to be made.

4. *The pleural form of phthisis*.—It is often enough by the pleura that phthisis makes its début, and we sometimes see the pleurisy precede by long years, ten, fifteen, twenty years, the beginning of the pulmonary determination, or really this primary invasion is rapidly extinguished and cured; then, suddenly, at this long distance, the infection takes place anew, but in the lungs; or again, the pulmonary phthisis results from the propagation of the pleural phthisis to the lung. But as the pleuritic patient very often does not cough, it is necessary to examine the pleural liquid. In a case under charge of M. Vulpian, communicated by his interne, M. Babinski, we see a patient attacked with purulent pleurisy operated upon, remain four months in a grave condition without it being possible to discover the signs of pulmonary tuberculosis. M. Déjerine then found a single bacillus out of three preparations. Three weeks afterwards many more were found. The autopsy showed the existence of caseous foci and a cavern on the left side. An analogous observation of Cornil, and the second one of Cochez, show the difficulty there is in finding the bacillus in the effusion, whilst it is so easily demonstrated in the expectoration. It is the examination

of the expectoration which has enabled us to make the diagnosis in the patient of No. 13 (Saint Christopher). This man commenced to cough three months ago, had, a month later, a right pleurisy, and at this time presents on that side some dulness and an amphoric souffle at the apex, without a trace of râles, and on the left side nothing. Is it an old pleurisy, or a pulmonary condensation from cirrhosis; or, again, a granulo-tuberculous infiltration? The presence of the bacillus in the expectoration allows us to affirm this last diagnosis.

#### IX.—PSEUDO-PHTHISIS.

1. *Syphilis of the lung*.—Gumma of the lungs may present the signs of a pulmonary induration (flatness, bronchial souffle, bronchophony), or, even when they are ulcerated, give rise to all the signs of a pulmonary cavern; moreover, the expectoration is purulent, and sometimes mixed with blood, just as in phthisis; finally, may not the opening of a gummous tumor, developed in a ganglion of the mediastinum simulate pulmonary tuberculosis or bronchic adenitis? There, again, the finding of the bacillus will remove all doubt (observation of Cornil, case of Balzer, at St. Louis).

2. *Dilatation of the bronchi* presents very often exactly the same signs as a cavern; the expectoration does not suffice always to show the difference. It is thus that a patient, Ward Saint Joseph, No. 11, admitted into the hospital four months ago, in the most complete state of physiological misery, and, under this head, as well as because of the cavernous signs which he presented in the right apex, was classed among the patients with phthisis. But, in spite of the cough, the bronchial catarrh, the cavernous souffle, in several examinations made not a single bacillus could be found. The diagnosis was then canceled, and, in fact, after a month of observation, the patient went out, having recovered his appetite, and presenting a general condition notably better. Debove has just published an analogous case; likewise the case of M. Moussou is similar.

3. *Chronic asthma*, with its sibilant râles, its emphysema, is sometimes accompanied by a very bad general state; it may then simulate phthisis. Such is the case of a young woman in Ward Saint Jeanne who, subsequent to a doubtful typhoid fever, had had, for eighteen months, broncho pulmonary symptoms. After two years of perfect health she was taken, three weeks ago, with violent fever, with general sibilance, considerable emphysema and dyspnoea, reaching even to cyanosis. There was every appearance of miliary tuberculosis, but the negative results of the examinations of the expectoration, practised upon several different occasions, caused this diagnosis to be eliminated. In fact, four or five days afterwards the patient was cured; there remained only the asthma upon which had been engrafted an acute bronchitis.

4. *Chronic bronchial catarrh* with chronic pneumonia may equally cause the belief in the existence of a tuberculous cavern (Heitler).

5. *The chronic catarrh of diabetics* with pulmonary induration is far from being rare; it may be due to a chronic lesion of special nature, but most frequently it is of tuberculous origin. The bacillus alone permits the decision of the question (Immerman, Reitsmeyer, Leyden, Merkel, Reigel).

6. *Doubtful Pulmonary Indurations*.—A syphilitic patient suffering with aortic

insufficiency presented the signs of a pulmonary induration at the apex of the left lung. The diagnosis was uncertain between a chronic pneumonia, a syphiloma, or a tuberculous infiltration. The finding of the bacillus showed that we had to deal with—a coincidence more frequent than is supposed—a patient with heart disease who had become phthisical.

We will say, then, to sum up in a few words, tuberculosis is a contagious, virulent, parasitic disease. Its characteristic element is the bacillus discovered by Koch. The bacillus is found in all tuberculous products, but it is often impossible to diagnosticate pulmonary phthisis by the ordinary means at the commencement of its evolution. It may then be *latent*, revealing itself by no sign; or *larval* (*larvée*), that is to say it may, take the form of some other acute pulmonary affection, bronchitis, laryngitis, pneumonia, etc.; or, at a more advanced period, it may be impossible to differentiate it from other affections of the lungs: pseudo-phthisis, chronic pneumonia, pulmonary syphilis, asthma, etc. The presence or absence, well and duly determined by several histochemical examinations, of the tubercle bacillus in the expectoration will permit us in all cases, even in the absence of every other positive sign, to affirm or deny the existence of tuberculosis, and, instead of remaining in doubt and helplessness, to lay down a certain diagnosis, a valid prognosis, and to institute immediately a rational treatment.

CRITICAL REVIEW OF MEDICINE: THE REFLEXES. Translated from *L'Union Médicale* of August 14, 1883, by H. MCS. GAMBLE, M.D., Moorefield, W. Va.

After MM. Vulpian and Charcot had shown, in 1862, that in multiple sclerosis the hyperexcitability of the spinal axis betrayed itself by the trepidation provoked in touching the foot; after M. Bouchard had described, in 1866, an analogous phenomenon in the upper extremity of hemiplegic subjects with contractures, ardent laborers beyond the Rhine entered upon this route of investigation, opened as usual by French pioneers.

In 1875, Erb and Westphal laid down the conclusion which might be drawn from the investigation of the patellar reflex or knee phenomenon in the diagnosis of locomotor ataxia. From that time the tendonous reflexes have been subjected to a patient and delicate analysis in a great number of diseases.

But, at the same time, protestations arose against the importance given to this study, against the intrusion of these novelties into clinical teaching, and more than one practitioner still refuses to see in the investigation of the state of the reflex movements anything more than a curiosity.

Thus are once more verified the two opposite tendencies which divide physicians when their attention is called to a new method of clinical investigation. In face of the sometimes premature infatuation of some arises the perhaps excessive mistrust of those who, jealous guardians of the traditional semeiology, are alarmed at seeing any new sign introduced therein.

Anxious to hold on to the semeiological value of the reflexes, apart from the very difficult problems of physiology which attach thereto, we shall not have in view alone the tendonous reflexes, so well described in the excellent reviews of

MM. Dreyfus-Brisac, G. Ollive and Render. Following the example of Byrom-Bramwell, we will consider the superficial or cutaneous reflexes, the deep or tendonous and visceral.

I.—A type of *superficial reflex action* is the closure of the eyelids consecutive to the least touch of the conjunctiva. This reflex action belongs to the category of defensive movements. It has for its centripetal route the sensitive filaments of the trifacial, for its centre the bulb, and for centrifugal conductors the motor filaments of the facial. M. P. Berger has shown that one might utilize it for the appreciation of the degree of anæsthesia in subjects under the influence of chloroform; it is the last one of the actions of the life of relation which persists, and its disappearance may be considered as the limit of the *zone maniable*. As far as concerns the spinal cord, the examination of the reflex functions belonging to each of the segments of this organ appears to be a logical means for estimating its healthy or morbid condition. Physiology has taught us that each medullary segment with its sensitive and motor roots constitutes a reflex arc, thanks to which the peripheric excitations, performed upon the portion of the skin innervated by the fibres of the posterior roots, may determine the production of reflex movements in the muscular area upon which the fibres of the anterior roots are distributed.

According to Gowers, the best means of producing the superficial reflex actions is to tickle the skin with a fine point, such as the sharpened extremity of a pencil.

If we thus scratch the bottom of the foot, the *plantar* reflex results in a contraction of the muscles of the foot, and its line of passage is the inferior extremity of the lumbar enlargement. Contraction of the buttock muscles follows excitation of the skin of the buttock, by virtue of a reflex which traverses the cord as high as the fourth or fifth lumbar pair. The reflex of the *cremaster*, which is determined by tickling the internal portion of the thigh, and which is especially appreciable in young subjects, consists in the retraction of the testicle; it follows the first or second lumbar pair. Likewise, the *abdominal, epigastric and interscapular* reflexes, producing contraction of the abdominal muscles, depression of the epigastrium or certain movements of the shoulder blade, would admit of exploring the integrity of the segments of the cord comprised between the eighth and twelfth, the fourth and sixth dorsal pairs, the third dorsal and the sixth cervical. Investigation of the cutaneous reflexes could not have the clinical value which Gowers attributes to it. Their persistence in a segment of the cord doubtless signifies that no serious lesion affects at that level the diastaltic arc—that is to say, the posterior roots, the œsthesodic and cinesodic cells of the posterior and anterior horns, and finally the anterior roots—but it does not imply the integrity of the postero-internal and antero-lateral columns.

Their absence is moreover far from always being a pathological fact, since, save the plantar reflex, the others may, in consequence of an idiosyncrasy, be entirely wanting in individuals in perfect health.

II.—It is also more interesting to examine the state of the *tendonous reflexes*, which have above all others preoccupied observers. When an individual in a state of health is seated upon a slightly elevated table, the legs swinging freely,



if one strikes exactly below the patella a sharp blow upon the ligamentum patellæ with the cubital border of the hand, the broad end of the stethoscope, or better still the hammer of Skoda, one immediately sees the percussed leg animated by several consecutive, regular and less and less extended oscillations. Such is the *knee phenomenon (patella reflex) sign of the ligamentum patellæ*.

We may investigate it again by causing the patient to sit down with the legs crossed, or by supporting, with the left hand placed under the hough, the leg which the right hand percusses. But it is then more difficult to obtain the complete relaxation of the muscles, which is the condition necessary to the correct interpretation of the phenomenon. The patella reflex is a physiological fact, since, according to the statistics of O. Berger, it is not wanting twice in a hundred among healthy subjects; it is constantly found, and even in a more pronounced manner, in the new-born (Eulenburg). It is the most readily observed of the tendonous reflexes; but we may also, in subjects with a developed spinal reflectivity, obtain the *elbow reflex* in percussing the tendon of the triceps brachialis above the olecranon, and the *reflexes of the wrist* by percussion of the flexor and extensor tendons. The *reflex of the foot* is found by percussing the tendo-achillis.

As soon as these facts were known they became the object of two antagonistic explanations. Whilst Westphal saw therein the direct influence of percussion upon muscular and tendonous fibre, Charcot and Erb considered them as veritable reflex actions. Finally, a mixed opinion has limited the role of the spinal cord to the property of exaggerating a kind of special excitability, the tendonous excitability (Waller).

We cannot enter here upon an examination of the numerous and ingenious experimental researches which have been instituted by the adherents of each theory. We will refer only to the following:

Let a fold be made in the skin which covers the ligamentum patellæ; let this cutaneous fold be struck, let it be irritated in any manner whatever, there is not a trace of reflex action. Section of the crural nerve, that of the posterior lumbar roots, abolishes the rotulian reflex, and not the idio-muscular contraction (Schultz and Furbringer, Tschiriew).

Measurement, by aid of graphic apparatus, of the interval passed between the percussion of the tendon and the contraction of the muscle indicates for the production of tendonous reflex a shorter duration than for the cutaneous reflexes (Burkhardt), but longer than for the idio-muscular contraction (Brissaud).

These data suffice us to conclude, with M. Rander, "that the tendonous phenomena are evidently the result of reflex actions; that they have their origin in the aponeurotic nerves (of Sachs and of Tschiriew) situated between the muscle and the tendon, and finally that the tendonous reflex arc is not the same as the cutaneous reflex arc."

Thus, in recent cases of locomotor ataxia the tendonous reflexes are abolished, but the cutaneous reflexes persist; whence that hypothesis that the cutaneous reflexes pass directly into the grey posterior horn, whilst the tendonous reflexes traverse the postero-external columns, to which the lesion is still limited at the beginning of tabes. In this same affection the idio-muscular contractility is

often exaggerated (Buzzard), whilst it is frequently diminished in cases where the excitability of the tendons is carried to its maximum, in spastic paralysis, for example. An inverse contrast is observed in hysteria, where the cutaneous reflexes may be abolished, whilst the tendonous are exaggerated.

a. The tendonous reflex is *suppressed* in locomotor *ataxia* (Westfield, 1878). In spite of some exceptions, this is a fact general enough to allow us to attribute to it the value of a law, and the masters in neuro-pathology believe themselves authorized to attach great importance to the abolition of the patella reflex in order to establish the early diagnosis of tabes in its preataxic period.

The attacks of myelitis which systematically fall upon the anterior cornua are accompanied by diminution, then suppression of the patella reflex; such are *infantile paralysis*, *subacute anterior poliomyelitis* (Leyden), and, perhaps, *pseudohypertrophic paralysis* (Gowers). In *general paralysis* the reflexes are wanting, when to the cerebral symptoms are added spinal pains and weakening of the limbs, indicating the participation of the cord in the meningo-encephalic process, they persist in paralytics who present only cerebral symptoms (Joffroy). Spinal reflectivity is in general so much the more marked as the cord is subjected to the moderating influence of the brain. It is a fact verified in the new-born whose cerebral life is almost null; in sleeping children (Rosenbach). Byrom-Bramwell has also formulated a sort of law concerning the state of the tendonous reflex in diseases of the spinal cord. The latter is wanting when the regions of the cord corresponding to the second, third and fourth lumbar nerves are injured; it is exaggerated, on the contrary, every time that the lumbar portion of the cord, still intact, is separated from the upper portions and from the neck, when there exist primitive or secondary lesions of the lateral columns, or an exaggerated sensibility of the grey substance of the cord.

b. The tendonous reflexes are *exaggerated* in *multiple sclerosis*. MM. Vulpian and Charcot have observed therein for the first time the *clonus réflexe du pied* or *epileptoid trepidation*, *spinal epilepsy*, a phenomenon identical in its nature with the other tendonous reflexes, of which it is only the pathological exaggeration. But let a plague of sclerosis come to invade the posterior lumbar roots, the continuity of the reflex arc will be broken, and the reflex of the foot may disappear.

Exaltation of the tendonous reflexes characterizes spasmodic dorsal tabes or spastic paralysis of Erb. Spinal reflex action is so lively in this disease that, in consequence of reflex irradiations, a slight percussion of the tendon is followed by brisk contractions, not only of the corresponding leg, but of the opposite limb. It is also observed in *lateral amyotrophic sclerosis*, and the cases of myelitis by compression (*pachymeningitis*, *Pott's disease*, etc.), in which the lateral columns are degenerated.

It is also in consequence of the degeneration of the lateral columns, and the exaggeration of the tendonous reflexes, that in-hemiplegic subjects with contractures is produced the epileptoid trembling of the upper extremity, first pointed out by M. Bouchard, in 1866, and so well studied by M. Brissaud in his thesis. ("Recherches sur la Contracture Permanente des Hemiplégiques, 1880"). In them the time of the reflex movement is shorter by from five to ten-thousandth of a second on the paralyzed side than on the sound side, and the contraction

consecutive to the percussion of the tendon more intense than in the normal state. This hyperexcitability of the medullary centres of the diseased side is even the predisposing cause of contracture in the hemiplegic patients, and the excitations proceeding from the sound side are the occasional cause of it (Michael Lion).

It is also important, from a practical point of view, to examine into the state of the tendonous reflexes in hemiplegic subjects, the exaltation of which will enable us to foresee the apparition of secondary contractures.

We can likewise predict the appearance of contractures in hysterical paralysis. We see, as we have said above, in hysteria the coincident anæsthesia which induces the loss of the cutaneous reflexes with exaltation of the tendonous reflexes.

M. Strauss has often seen the tendonous reflexes exaggerated in chorea ("Thèse de Petitclerc, 1880").

The study of the tendonous reflexes in *typhoid fever*, carefully made by MM. Ballet and Pluyaud, seems to show that there is hyperexcitability of the cord in a very large majority of cases, without enabling us yet to know whether this exaggerated reflectivity belongs to the direct action of the typhus poison upon the cord, to the long duration of the febrile process, or to the anæmia which is the consequence of it.

III.—The examination of the *visceral reflexes* may be utilized clinically, according to Gowers and Byrom-Bramwell, especially as to what concerns the state of the bladder and rectum. These authors lay great stress upon the fact that the sphincters are subjected to centres of tonicity situated in the medullary segments which correspond to the sacral nerves. The action of these tonic centres may be suspended, inhibited, as M. Brown-Séguard says, by the will, a cerebral act, the fibres of inhibition coming probably from the encephalon by the lateral columns. But Gowers admits that the inhibition of the centres of tonicity may also be brought into action by a reflex having as a point of departure the sensitive excitation of the vesical or rectal mucous membrane. We understand, then, how the examination of the vesical and rectal reflexes, that is to say, of the troubles arising in the performance of the functions of the bladder and rectum (incontinence or retention), may give us information as to the state of the lower part of the cord.

The *genital reflex*, by its abolition or its exaltation, would also explain the agenesia or the priapism which is always carefully investigated in affections of the cord; it might have its centre in the same segments as the vesical and rectal reflexes.

On the other hand, examination of a sensorial reflex, the *pupillary reflex*, informs us as to the upper portions of the medullary axis, for the cilio-spinal centre is located in the two last cervical segments and the first two dorsal; it is thence that start the sympathetic fibres which are distributed to the radiating fibres of muscle of the iris; their irritation would produce mydriasis, and myosis would be the consequence of their destruction.

But, more frequently, pupillary modification indicates to us a central lesion. Thus, the loss of the pupillary reflex under the influence of light, a nearly con-

stant symptom in ataxia, has been attributed to a lesion seated in the neighborhood of the tubercula quadrigemina.

M. Parrol, whose recent loss we deplore, has made known that, in children, in certain morbid conditions, if one sharply pinches the skin of a very sensitive region, of the epigastrium for example, the pupil is immediately seen to dilate in such a manner as to attain a diameter double or triple the natural size. This fact is observed in tubercular meningitis, hæmorrhage of the pia mater, and sometimes in chronic hydrocephalus. M. Parrol also believed that we might conclude "that a child, attacked or not with convulsions, who is in a state of coma, and whose pupils do not dilate under the influence of the pinching of the skin, is not attacked either with meningitis or hæmorrhage of the pia mater; that he is under the influence of an advanced asphyxia, and that its death is imminent."

To sum up, if we consider the services which the investigation of the reflexes has rendered and can render to clinical teaching, we could not, without injustice, deny the very real interest which attaches to their study. We are tempted, however, to defend ourselves a little against the enthusiasm which has dictated this phrase of Westphal: "In striking the ligamentum patellæ we will succeed in recognizing certain lesions of the cord with a nicety, a precision, I will say almost an elegance, unknown until the present time."

PAUL LE GENDRE.

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## ORIGINAL ABSTRACTS.

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(BY J. G. KIERNAN, M.D., CHICAGO, ILL.)

INFLUENCE OF ACUTE DISEASE ON INSANITY.—Dr. Kiernan (*Detroit Lancet*, July, 1883,) cites the following instances in which acute disease favorably influenced insanity. Savage had under observation a melancholiac who permanently recovered after an acute attack of peritonitis. Dr. Fritsch reports lypemaniacs who recovered after being attacked by a delirium resulting from erysipelas. The first patient had markedly depressing delusions but no hallucinations. The second patient had both hallucinations of hearing voices through a telephone and depressing delusions. The second case seemed to have systematized hallucinations, and, although Fritsch says she was cured, she continued to be "nervous." It is probable that this was a case of monomania, and the supposed recovery a remission due to the erysipelas. He also reports a case of parietic dementia markedly improved by erysipelas. Similar cases are reported by Esquirol, Nasse, Holler, Macleod, Savage and Sponholtz. Niepce has observed an idiot suffering from hydrophobia who gave evidence of his remembrance of things of which, at the time of their occurrence, he had been apparently oblivious. S. Tuke has had under observation an old dement who became rational during the excited period of typhus fever, but sank into her usual condition on recovery. Gaye has found that the same fever exerted a beneficial influence on two cases of acute mania and two cases of lypemania. Drs. C. M. Campbell and De Montegel found that typhoid fever favorably influenced one-third the cases attacked by it, and similar cases are cited by Griesinger. Sponholtz has noticed that measles exerted a favorable influence on insanity. Fabre

found that several patients improved on being attacked by icterus, and that one recovered. Dr. Kiernan has seen four cases in which improvement followed upon an attack of acute pneumonia. Langlois has reported a similar case. The improvement in all five cases began during the hyperpyrexia. In two cases acute nephritis apparently initiated recovery from lypemania. A lypemaniac attacked by acute dysentery was very rational during the continuance of the disease, but relapsed into his usual condition on recovery from the dysentery. A similar case is reported by Dr. Stedman.

UNILATERAL ALBUMINURIC RETINITIS IN A MAN WITH ONE KIDNEY.—Yvert (*Rec. d'Ophthal.*, March, 1883) reports the case of a Spaniard, aged 43, who had most subjective and objective symptoms of parenchymatous nephritis, in whom the right eye remained absolutely intact throughout the entire course of the disease. In the left eye there were the usual yellowish-white masses of retinal exudation, beneath the vessels in the region of the macula, and between the latter and the disc. There was numerous punctate hæmorrhages, and some larger extravasations. Vision was not much affected when the patient first came under observation, but subsequently was almost entirely lost. After the patient had been under treatment about six weeks vision improved almost to the normal standard, and there was a considerable diminution of the retinal exudation. The patient subsequently, however, grew very much worse, the vision was again nearly lost, and the patient died in about ten weeks from the time that he first came under observation. At the autopsy there was not a trace of the right kidney, artery, vein, or ureter to be found, though a normal-sized right suprarenal capsule was in its accustomed place. The place ordinarily filled by the kidney was occupied by a portion of the enormously hypertrophied right lobe of the liver. The left kidney was in its normal position, was considerably hypertrophied, and presented the characteristics of the large white, parenchymatous nephritis.

CHANGES OF QUININE AND STRYCHNINE IN THE BODY.—Kerner (*Archiv. der Pharm.*) found that, when quinine is taken internally, a portion of it reappears in the urine, partly unaltered and partly amorphous, but behaving otherwise entirely like the original base, still possessing antipyretic and antiseptic properties, having a bitter taste and answering to the well-known reactions for quinine. Another portion appears in the urine as an altered substance—dihydroxyl-quinine. This differs from quinine; for instance, it can form soluble compounds with alkalis, and can be again separated from these by acid; it possesses neither antipyretic nor antiseptic effects, and has no bitter taste, yet it furnishes the thalleioquine reaction, just like quinine. Kerner also showed that the same decomposition product is furnished by oxidizing quinine with permanganate of potassium. Plugge confined himself to the study of the eventual products of the oxidation of strychnine by permanganate. A body was thus obtained which had lost many of the properties of the original alkaloid—not being poisonous. These results were independently arrived at by Hauriot (*Comptes Rendus*), who followed much the same procedures.

PTOSIS.—Wecker (*Ann. d'Oc.*, July-Aug, 1883) has devised a new operation for the relief of ptosis. He dissects up an oval flap of skin and orbicular muscle for a space of four or five millimetres in length along the free border of the lid. He then passes a suture through the skin above the eyebrow, about the width of the finger, above the superior orbital margin, beneath the skin and muscular tissue, and brings it out at the upper part of the wound, beneath the divided orbicular muscle. He then introduces the needle again beneath the orbicular muscle, near the inferior margin of the wound, and brings it out through

the middle of the bridge of skin just above the ciliary margin. Then, making a bridge of five or six millimetres along the ciliary border of the lid, he passes the needle and suture in a reverse direction, and brings it out just above the eyebrow. A second suture is introduced, like the first, at a centimetre from it. Slight traction suffices to completely close the wound, and the two ends of each suture are then tied over a little roll of kid. The results have been very satisfactory.

**CYSTICERCUS CEREBRI IN A ONE-YEAR-OLD CHILD.**—Dr. O. Saltman (*Central. für die Med. Wiss.*, March 12, 1883) reports the following case: A one-year-old child was seized with vomiting, convulsions and squinting, and suddenly died. The post-mortem examination revealed a rickety state of the osseous system. In the middle of the grey substance of the gyrus fornicatus was found a tumor of the size of a pea (a cysticercus); one also in the left corpus dentatum, and two smaller tumors in the cortex of the left posterior lobe on its under surface, near the fissura calcarina. No tæniæ were found in the intestines. Only one such case at so early an age is on record. Fleischmann records a case of cysticercus of the brain in a child aged two years.

**ERGOT AS PREVENTIVE OF THE HEAD SYMPTOMS OF SALICYLIC ACID.**—Schilling (*Allgemeine Med. Central Zeitung*, March 21, 1883) states that ergot, in the proportion of one to ten of salicylic acid, prevents the deafness and other head symptoms of the latter drug, or of quinine, without interfering with anti-febrile action.

**ETHYL BROMIDE IN WHOOPING-COUGH.**—Dr. W. Squire (*Lancet*) finds that one-half to two ounces of a one to two hundred aqueous solution of ethyl bromide gives good results in whooping-cough and cramps.

**MEDICATED TRACHEAL INJECTIONS.**—Dr. Bergeron has recently discussed the subject of medicated injections into the trachea (*Lyons Médical*, October 7, 1883). The injection of medicated fluids into the respiratory passages below the larynx is very well borne by cows, horses and dogs, causing only very slight functional trouble. It is possible to inject in this way in man a solution of morphia citrate, if the needle be protected during introduction by a trochar so that the canula shall not be plugged in traversing the tissues. This should be practised while the patient is lying down so as to avoid syncope. Bergeron has made twenty-five injections in thirty-five days, with calming effect in a phthisical patient.

**STRYCHNIA SULPHATE IN LABOR.**—Dr. Emile Déghilage (*Lyons Médical*, October 7, 1883) employs strychnine instead of ergot in dystocia due to uterine inertia. He considers it more efficacious in such cases than ergot. A granule containing about 1-200 grain is given every ten minutes.

**EXAMINATIONS OF THE FEMALE GENITALS.**—Dr. W. H. Byford (*Western Lancet*, November, 1883) concludes. 1st. The sometimes terrible effects of examinations or operations in the pelvis do not often, if ever, take place when there is not a perceptible predisposing inflammation. 2d. The inflammation may be so light as to be easily overlooked. 3d. It may be an original condition, the sequæ of an acute attack long gone by, or it may be the product of some immediately previous examination or operation, the effects of which have not subsided. 4th. To avoid the dangers of acute inflammation we should, in making a first examination for pelvic disease, conduct it in such a way as not to give the patient much pain, and, when she complains of much pain and suffering, desist, at the sacrifice of complete diagnosis. 5th. Complaints of much tender-

ness to the touch, or the use of instruments, especially in parous women, is sufficiently diagnostic of inflammation upon which to base treatment for that condition. 6th. If, with such tenderness, a thorough examination or operation is imperative, it should be done under profound anæsthesia. There is no question in my mind that much less danger of ill effects is incurred in making examinations or operations on susceptible subjects under the free use of anæsthetics. 7th. Examinations or operations should not be repeated until the effects of the first have entirely passed off. 8th. As chronic parametritis is a frequent complication of most of the morbid conditions of the uterus, it should always be suspected, and its diagnosis be carefully considered in all cases of metritis. 9th. When chronic parametritis is present it should be the chief, if not exclusive, object of treatment until removed. 10th. It is not safe to use the sound, sponge tent, or intra-uterine stem, when there is perimetritic inflammation. 11th. It is especially dangerous to replace a displaced uterus when it is bound down by inflammatory adhesions, by any means which will overcome its fixedness by force. 12th. All local treatment of the uterus must be conducted with the greatest care in all cases where the complication is present.

SCRAPING IN RECTAL CANCER.—Dr. Crawford Renton reports a case of rectal cancer (*Glasgow Medical Journal*, Sept., 1883) where scraping was resorted to, and now, for a period of thirteen months, the patient has experienced great relief. The bleeding was easily controlled by finely-powdered matico. It would be well in suitable cases, where the growths are villous in character, to scrape before resorting to the much more serious operation of excision.

OBSCURE ORIGIN OF SYPHILIS.—It sometimes happens that men become (*Medical and Surgical Reporter*) infected with syphilis, when it is extremely difficult to find out how it has occurred, since no lesions can be found about the vulva of the suspected woman. Dr. Bell has probably struck the keynote in what he says (*Canada Med. and Surg. Jour.*, October, 1883) about uterine chancres, and that, owing to the great frequency of the occurrence of simple erosions of the os uteri, many infecting syphilitic lesions are probably overlooked, and that in this way might be explained many of the obscure cases of syphilis in which no history could be obtained of primary sore. The suggestion is not new but is worthy of attention.

CHLOROFORM NARCOSIS DURING SLEEP.—Dr. A. W. Hurd, House Physician to Almshouse Hospital, Blackwell's Island, says (*Medical Record*, Dec. 1, 1883): "The recent adverse testimony in the 'chloroform narcosis during sleep' question leads me to report a case under my observation. As one affirmative case has much more weight than a number of negative ones, I think this will prove of interest, especially as there can be no doubt of the completeness of the anæsthesia in this instance. October 5th, a man seventy years of age, a coalheaver by occupation, was admitted to the hospital with severe contusion of left forearm and elbow, and a subclavicular dislocation of humerus. He appeared partially demented, gave a very indefinite history of his injury, and resented vigorously any attempts either at examination or reduction. So violent was he that it was decided to induce anæsthesia during sleep, if possible, and attempt reduction. About two hours after falling asleep in the evening, chloroform was administered on a handkerchief held about ten inches from his face at first. He breathed quietly, and made not the slightest sign of disturbance. The handkerchief was brought gradually nearer, and when he seemed fairly unconscious ether was substituted for the chloroform. The change did not disturb him, except to cause a slight alteration in the rhythm of his breathing for a moment. With the assistance of Drs. Herrick and Winstock the dislocation was then reduced,

but with difficulty, the examination revealing the presence of numerous adhesions. The dislocation was evidently of older date than the contusion. The manipulation required at least fifteen minutes, and rotation was resorted to to break up the adhesions—the dislocation finally being reduced. The patient came out from the influence of the ether in about ten minutes. The completeness of the anæsthesia is unquestionable, as the manipulations were such as would be very painful to a conscious person. The ease with which the anæsthesia was obtained, and the thoroughness of the test of its genuineness seem worthy of note as opposed to the number of unsuccessful cases recently published, accompanied by a criticism that the tests ordinarily employed were insufficient.”

THE FUNDUS OCULI IN HEPATIC DISEASE.—Litten (*Zeitschr. f. klinische Med.*, *Band* v., *Heft* 1) has found that: 1. In all the various diseases of the liver which are complicated with icterus, retinal hæmorrhages not infrequently occur, and must be regarded as symptomatic of other widely-extended hæmorrhagic processes occurring in many internal organs. These hæmorrhages are by no means always of evil omen, for they occur in comparatively harmless form of catarrhal hepatic inflammation whenever complicated with icterus. With the latter they stand in close connection. 2. In one case of acute hepatic atrophy from phosphorus poisoning, besides fresh retinal hæmorrhages, Litten observed multiple white spots, which proved, on microscopic examination, to be fatty degeneration, which were mainly situated in the granule layer, and contained numerous granular bodies and tufts of tyrosin. The capillaries had also undergone fatty degeneration. 3. In two cases of atrophic hepatic cirrhosis he observed pigmentary degeneration of the retina, which in one case developed long after hepatic disease had existed, while in the other it preceded it by a year. In both cases there was marked concentric limitation of the field, with good central vision and general diminution of the visual power under diminished illumination. 4. Hemeralopia sometimes occurs during the existence of a hypertrophic or an atrophic hepatic cirrhosis, without demonstrable organic retinal change. 5. By ligation the optic nerve, as near as possible to the eyeball, it is possible to produce in the retina processes similar to those Berlin produced by division of the optic nerve, and similar also to those seen in retinitis pigmentosa; atrophy of the retinal cellular elements, absorption of the epithelial layer pigment and wandering of the same into the innermost retinal layers. On the other hand, connective tissue hyperplasia observed in pigmentary degeneration of the human eye was almost entirely wanting. 6. Immediately after puncture in marked ascites, a neuro-retinitis with slight papillary swelling was developed, with exudation into its tissue and around the vessels. Litten believes this was caused by the rapid alteration of hydrostatic pressure, in consequence of the rapid withdrawals of sixteen litres of fluid.

DIVISION OF THE MEATUS URINARIUS IN LOCOMOTOR ATAXIA.—Dr. F. N. Otis, related the following case before the New York Medical and Surgical Society (*New York Medical Journal*, October 20, 1883): Two years ago a gentleman from the country consulted him with regard to incontinence of urine and some loss of motor power in the lower extremities. He was requested to see Dr. Seguin, who gave a somewhat elaborate written opinion of his condition, pronouncing it undoubted locomotor ataxia, and giving a very unfavorable prognosis. He recommended the administration of large and increasing doses of ergot, and, if convenient, a course of treatment by the galvanic cautery. Dr. Otis recognized contraction of the meatus urinarius, and divided it, with the effect of producing almost immediate relief from the urinary symptoms. There was no history of syphilis, but, having recently read an article on locomotor ataxia, in which the iodide of potassium was highly recommended in the treat-



ment, he administered the drug, and within a short time the man began to show decided improvement in the motor symptoms, and was at present almost perfectly well, and able to attend to his business as a gentleman farmer. Dr. Otis remarked that he had never failed in such cases to produce benefit by the division of the strictured meatus if it existed. It is obvious that Dr. Otis ignores the possibility of remissions which are by no means infrequent in locomotor ataxia.

ALBUMINURIA.—Semmola, Naples (*Progrès Médical*, June 9, 1883), regards Bright's disease as not essentially renal, but as consisting in a general morbid alteration of nutrition; albumen in such cases is not only passed by the urine, but by all secretory organs. This alteration deprives the albuminoid materials of the blood of their power of being assimilated, and so causes their excretion by the emunctories. The renal lesions are due to mechanical irritation of the tubules of the kidney by the constant passage of albumen through them. Albuminuria is therefore a cause, not a result, of renal disease. Semmola injected into the blood-vessels various substances containing albumen, as white of egg, milk, and blood-serum, with the result of inducing artificial Bright's disease. White of egg was most active in this way. He has therefore concluded that the more nearly albuminoids approach the characters of serum-albumen, the less likely they are to injure the kidneys by irritation, and *vice versa*. This view is not new, and is as *doctrinaire* as the one it is intended to supplant. Both views are partially right.

HUMAN LACHRYMAL GLAND SECRETION.—Magaard (*Arch. f. path. Anat. u. Physiol. u. f. klin. Med.*, B. lxxxix.) has investigated the secretion of the lachrymal gland in man. He found that: 1. The lachrymal secretion is very variable in quantity, from various psychical and other causes. 2. By careful calculation, it was estimated that both lachrymal glands secrete in twenty-four hours 6.4 grammes of fluid. 3. Atropine diminishes the secretion in time. 4. Eserine annuls the action of atropine, and in a short time increases the secretion. 5. Irritation of the sympathetic nerve in the neck by the faradaic current seems to accelerate the secretion. 6. The secretion coagulates by heat, and contains albumen and the chlorides, but no phosphates.

TREATMENT OF SCROFULIDES IN CHILDREN.—Sabatier (*Journal of Cutaneous and Ven. Dis.*) concludes that: 1. The best mode of treating scrofulides of children is by scraping, followed by the thermo-cautery. Scraping removes the diseased tissue, and cauterization completes the work by destroying the pathological elements which have survived the former process, and by setting up a benign and reparative inflammation. 2. After every operation for scrofulide of the limbs, an air-tight dressing with strips of diachylon plaster will be found of great advantage by repressing the tendency to exuberant granulations. The sore heals more rapidly, and the resulting cicatrix is thinner and more flexible than when the usual bandages are employed. 3. This kind of dressing, however, is almost impossible of application on the face and neck. 4. Local treatment of a scrofulide should always be resorted to in aid of constitutional measures. Only the former will avail to arrest a suppurating process which has lasted for several years. Without local treatment, too, the patient is liable to be more or less disfigured by the cicatricial keloids which will inevitably be produced. It is in cases of tuberculous scrofulide, against which the best-directed constitutional treatment is generally powerless, that local measures are of the greatest utility. By destroying the tubercles at the outset of their development the progress of the evil is effectually checked.

**CORNEAL OPACITIES.**—The following collyrium is recommended (*Medical and Surgical Reporter*) by Michel, in the treatment of corneal opacities: R. Cadmium sulphate, 5 centigrams; mucilag. acaciæ, 10 grams. M. The opaque spot is touched twice or thrice daily with a camel-hair brush wet in this solution. The application is painful at first, but as soon as it ceases to become so the proportion of sulphate may be increased. When the opacity is of recent origin a favorable effect is rapidly obtained; when it is of old date the treatment must be persisted in for a longer period.

**MELANCHOLIA FROM MEDULLA AND SPINAL CORD DISEASE.**—Melancholia is recognized as being among the vaso-motor disturbances of locomotor ataxia. Schuele (*Irrenfreund*, No. 2, 1883) describes a case in which at various times there occurred cardiac palpitation, irregular cardiac action, abuminuria, glycosuria, and neuralgia. The patient was a marked case of agitated melancholia, and showed the anxious excitement of that psychosis. Schuele inclined to the opinion that the case was not of primary cerebral origin, but the secondary result of a medullo-spinal affection. The patient recovered.

**CONVULSIONS FROM OIL OF TANSY.**—Dr. J. W. Grace, Hunt, Ark. (*Southern Practitioner*, August, 1883), was called to see a patient who was having convulsions so rapidly he could not get her to swallow anything, so he administered chloroform by inhalation, which immediately relieved the spasms. He then gave an emetic, which brought up a quantity of tansy oil. He afterward learned she had taken about one ounce of the drug. He prescribed chloral hydrate and potash bromide every two hours to prevent the return of convulsions. On the following evening the patient showed symptoms of gastritis, which rapidly gave way under teaspoonful doses of listerine every four hours. The patient did well, and made a rapid recovery. The poison was taken to bring on an abortion.

**CALCIUM SULPHIDE IN AURAL DISEASE.**—Bacon (*Arch. of Otology*, xii., 2) has used the calcium sulphide in acute otitis media with great advantage. In several cases, where the membrana tympani was highly congested and bulging, the inflammation subsided under its use of this remedy, and he believes that if given sufficiently early in the disease it will prevent the formation of many cases. Its most decided action seems to be in those cases in which the discharge has already commenced, as well as in cases of furuncles in the external auditory canal, where it will either arrest the inflammation and cause the boil to dry up, or it will promote suppuration and cut short the disease. The pain so frequent in these diseases, even when the periosteum is involved, is often relieved at once. In diffuse inflammation of the external auditory canal, and in mastoid disease, whether affecting the pneumatic cells or the periosteum and tissues externally, great benefit will be obtained from its use.

**FIBROUS POLYPUS SIMULATING UTERINE INVERSION.**—Dr. Mundé (*New York Medical Journal*, December 11, 1883) had removed a polypus in a case in which difficulty had been met with in the diagnosis, owing to the tumor having contracted adhesions to the cervical canal on all sides. It was only when the patient was anæsthetized and actually on the operating table that he had been able to feel the body of the uterus, which was very small.

**SEVERE HÆMORRHAGE AFTER FIRST COITUS.**—Dr. Mundé (*New York Medical Journal*, August 25, 1883) reports the case of a twenty-two-year-old girl, whom he found pallid and anæmic from the loss of blood. She had been married the

night before, and but a single connection had taken place. It was not attended by severe pain nor by immediate hæmorrhage, but some hours afterward she observed bleeding from the vagina, and sent for a physician, who gave ergot, but without benefit. He made no examination. Then another physician put ice into the vagina, but also without stopping the hæmorrhage. Dr. Mundé examined the hymen for the source of the bleeding, but found that it came from a point higher up. Introducing a Sims' speculum, the vagina was seen to be ruptured on the right side for a distance of about two inches and a half, extending from one inch above the intestines up into the right fornix. The uterus was retroverted. He assumed that there was a disproportion between the male and the female organ. The bleeding was checked by firm tamponade with cotton.

LOBELIA INFLATA IN THORACIC TROUBLES.—M. Fourrier (*Lyons Médical*, July 15, 1883) recommends tincture of lobelia in dyspnœa due to mitral lesions and dilatation of the right heart, in pulmonary congestion, and in the third stage of phthisis. In catarrhal asthma a mixture, each dose of which contains one gram and a half of tincture of lobelia and half a gram potassium iodide is said to be very often useful. Lobeline is a sirupy, non-crystallizable alkaloid. Lobelia has long been used in such conditions in the United States.

PRECIPITATES IN MIXTURES OF DIFFERENT TINCTURES.—Vigier (*Gazette Hebdomadaire de Médecine et de Chirurgie*, July 13, 1883) calls attention to the precipitates sometimes formed in mixing tinctures. Physicians often prescribe mixtures of different tinctures to be taken by drops. Such mixtures are very often turbid, perhaps because the tinctures which compose them are composed of alcohol of different strengths; perhaps because of some chemical incompatibility in the substances mixed together. Sixty per cent. alcohol, which is nearly half water, dissolves the gummy matters of plants, which are precipitated by stronger alcohol. On the other hand, eighty or ninety per cent. alcohol dissolves the resinous matters, which are precipitated by weaker alcohol. In case a precipitate forms in any given case, the liquid can, of course, be filtered, but it is often not known what remains upon the filter. It is better, therefore, in mixing tinctures, to put together such only as are made with alcohol of the same strength. However, even this precaution will not always prevent formation of precipitates. If equal quantities of the tinctures of calumba, of gentian, of cinchona, and of the bitter tincture of Baumé be mixed together, the resulting compound is turbid. It is found, by combining these tinctures in various ways, that the precipitate results from the reaction of the tinctures of calumba and of cinchona upon each other. The viscous material contained in the tincture of calumba is thrown down by the soluble principles of the cinchona. This precipitation may not destroy the value of the filtered mixture; nevertheless, it is better not to prescribe the two tinctures together. Attention had previously been called to the same subject in the editorial columns of the *Druggist*, 1881, and subsequently in 1883 in the same journal by Prof. J. U. Lloyd.

DISINFECTING APPARATUS AND THE AIR-DOUCHE.—Lucae (*Arch. f. Ohrenheilk.*, B. xix, 2 and 3) calls attention to the necessity of keeping pure the air to be blown into the middle ear, and thinks that the simplest way to do this is by inserting between the air-bag and its nozzle of exit a capsule filled with salicylated cotton. The nearer the disinfecting apparatus is brought to the ear the more sure the purification of the air. Recently he arranged its introduction into the catheter itself. A silver catheter is made with an arrangement like a Buttle's inhaler near the outer end, which can be unscrewed and its cavity filled with salicylated cotton before introducing the catheter into the nostril.

His catheters and the olive-shaped ends of his inflating apparatus are kept in a carbolic acid solution to avoid possible chances of infection.

**ACUTE RHEUMATISM AND SUDDEN DISLOCATIONS.**—It is well known that during the course of acute rheumatism articulations in bad positions suddenly become dislocated without suppuration or bony alteration. Like traumatic dislocations, these can be reduced instantaneously. Verneuil has recently reported seven cases of this type of dislocations. While not wishing to deny that they are due, as is commonly believed, to hydrarthrosis, he has never been able to determine its existence. In two cases of knee luxation fluid was absent. The muscular system has some influence; paralysis in groups of muscles; contraction in another. Faulty joint positions should be avoided in rheumatism. The reduction of the dislocation is easy, and the limb soon resumes its normal condition.

**INTESTINAL PERISTALSIS.**—Dr. J. Ott Easton, Pa. (*New York Medical Journal*, August 18, 1883), concludes: That in the optic thalami and crura cerebri are inhibitory centres restraining the intestinal reflexes. 2. That drugs may be divided into intestino-inhibitory and intestino-motor. 3. That morphine and atropine in small doses are intestino-inhibitory agents. 4. That eserine, nicotine, and muscarine are intestino-motor.

**VERATRINE IN TREMOR.**—M. Féris, of Brest (*Progrès Médical*, July 14, 1883), comes to the conclusion that veratrine controls the tremor of alcoholism, of various neuroses, and of the state following pyrexia. It is to be given in half-milligramme pills, four of which should be taken daily. The action is apparent almost immediately after the first doses are taken. If the remedy is continued for a sufficient length of time, its influence remains for a long period after the use of the drug is suspended. This persistence has been observed for almost two months. The treatment should be continued at least ten days in order to produce permanent results. M. Dubois (*Gazette Hebdomadaire de Médecine et de Chirurgie*, July 27, 1883) says that most of the active principles, administered during the state of alcoholic intoxication, from the time the tremor is of the greatest intensity (the patient having abruptly stopped the alcohol) will, like veratrine, check the tremor.

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**UNEXPECTED DISCOVERY IN A GOBLET.**—At a gentlemen's dinner party in this city, recently, one of the guests, catering to what some consider a depraved taste for ice-water, was seen to lower his goblet before it touched his lips and peer into its crystal depths through his eye-glasses. "What is this?" he asked, as he agitated the water with his fork. "A little fish, I declare." And, sure enough, there was a "wee bit" of a fish, too small to be seen easily with the naked eye, but plainly visible through strong eye-glasses, and lively enough for drinking purposes. Stir him up and he would dart swiftly through the water and lose himself behind the ice. The cause of temperance suffered by the incident, as Trout Brook water was at a discount after this discovery.—*Hartford (Conn.) Times*.

**A COMMUNICATION** to the Academy of Science, Paris, demonstrates the passage of the bacilli of charbon from the blood of an affected animal into the secretion of milk. The authors, MM. Chambrelent and Moussons, state that the number of bacilli in the milk of the diseased animals is always much smaller than that which can be discovered in the blood, and may even be reduced to zero.

## LECTURES.

CLINICAL LECTURE IN GYNÆCOLOGY. Delivered at the College of Physicians and Surgeons, New York. By T. GAILLARD THOMAS, M.D., Clinical Professor of Diseases of Women. Reported by H. H. SEELYE, M.D.

## THE CAUSES AND TREATMENT OF ABORTION. PERSISTENT STERILITY.

GENTLEMEN : The first patient this afternoon is Mrs. E. C., twenty-two years of age, and a native of the United States. She has been married three years, and has had no children, but has had three miscarriages.

I ask her how long she has been sick, and she replies that she has never been sick ; and, as you look at her, you will believe her statement, for she has a strong and healthy appearance. So I ask her next why she has come here to see us, and she answers, because she is anxious to bear children ; and, though she has been pregnant three times, she has had a miscarriage every time. She passed two years of her married life without becoming pregnant at all, and then she became so, but had a miscarriage at the end of three months. She knows of no cause for this miscarriage. In her second pregnancy she miscarried a little short of three months, but without any known cause. She became pregnant a third time, and again miscarried at about the same period as before. At none of these times does she remember to have had a fall, or to have made any violent effort, or any slip or misstep, or to have had any sudden fright, or anything else which she could assign as a cause of her miscarriages. All three of them have taken place within the past year. She complains now of no headache, or backache, or any other pain, and she walks easily and seems to be in perfect health.

Now, I show this case to you not because it is a remarkable one, for you will hear such a story as this over and over again, but because I like to show you here, not cases that are rare and such as you will seldom see elsewhere, but rather cases that are types of classes of such mild conditions as you will often meet with, but which will cause you much trouble.

The history you have just heard here is one that you will hear repeated by patients again and again till you get sick of hearing it, and a patient will come back to you eight, ten, or twelve or more times, perhaps, complaining of repeated miscarriages every time, and appealing to you to help her, and, if you fail in your efforts, apparently holding you responsible for her misfortune. And let me tell you here that among the nineteenth-century women there are two classes—one, those who desire, above all things, to become pregnant and bear children ; and the other, those who are anxious, above all, not to bear children. Now, this woman is thoroughly unhappy because of her sterility, and she is

exceedingly anxious to bear children. Now, forget for a moment where you are, and let us suppose that your patient is a lady of a great deal of wealth, and the disposition of a large estate, perhaps, depends on her having a child, and you can imagine how unhappy she would be if she had only repeated miscarriages, and how important it would be for you to find out and, if possible, remove the causes of this mishap. In general, it may be said that miscarriages occurring at the third month are due to one of two causes more than to any others.

But first let me tell you, what you already know, no doubt, that out of one hundred cases of miscarriage more than seventy-five will occur at the end of the third month, and the next largest number at the end of the second month, and the next at the end of the fourth month, and the rest of the number will be scattered about in all the other months. That is to say, that over seventy-five per cent. of all cases of miscarriage occur at the end of the third month of gestation. There are two explanations of this fact. The first reason for it is, that at this time the placenta is just becoming thoroughly formed, while the chorion is disappearing and the manner of the nutrition of the child is changing, and, instead of being localized in the chorion, which receives its blood from the whole intrauterine surface, it is becoming localized in the placenta, which draws its nutrition from a limited surface of the uterus; and, as the chorion degenerates and the placenta is forming and attaching itself more intimately to the uterine walls, the changing from the chorionic to the placental nutrition of the fœtus is marked by a strong tendency to miscarriage. In the second place, you know that at the end of the third month the uterus is becoming so large that it is just beginning to rise out of the pelvis, and at this time, as the body of the uterus rises above the brim, if its supports happen to be a little weak, it is very apt to turn over on itself either to one side, or forward, or backward; and by this means the nutrition of the fœtus is deranged, and hence this is a very frequent cause of miscarriage at this time.

Now, we will go back to the point at which I digressed, and where I was saying that there are two great causes, not to mention the numerous possible causes, of habitual abortion in certain women. 1. A posterior displacement of the uterus which interferes with the proper development of the organ. 2. Syphilis. These are the two main causes; but now I will give you some of the others, merely in order to impress these two on your memories. You will sometimes find in a woman who has previously borne children that a slight single unilateral laceration of the cervix will become very irritable during pregnancy, and the reflex irritation thus caused will set up uterine contractions and bring about the expulsion of the fœtus; and this will cause, perhaps, three or four abortions in the course of a year. Again, large granules will form on the cervix of some women every time they become pregnant, and these will set up enough irritation to cause an abortion. These granules sometimes resemble an epithelioma in appearance, and they

are frequently mistaken for this by inexperienced physicians ; but that they are not such is shown by the fact of their disappearance after every abortion. Again, mere accidental causes will produce a miscarriage in some very nervous women, and these are commonly spoken of as women who "habitually abort." But this term is too frequently applied where the physician has overlooked the true cause, and it is therefore usually only a cloak for his ignorance. Some time ago I had my attention called to a peculiar case of abortion from purely nervous influences as a first cause. The patient was a lady near the fourth month of pregnancy, who was travelling in the railroad cars with her husband. As the engine drew the cars suddenly into a dark tunnel, the roar of the train, multiplied by the echoes of the walls of the tunnel, awoke her from a sound sleep; the noise and the darkness made her believe that an accident had happened, she became greatly frightened, very soon after labor pains came on, by the time she had reached the end of her journey the uterus was contracting violently, and soon after arriving home she aborted. I was fortunate enough to preserve the placenta, and, upon examining it, I found that she had had a small placental apoplexy, and a clot of blood of the size of a walnut had formed and separated the placenta from the uterine wall, and from this focus an irritation had spread till it brought on uterine contractions, which ended in an abortion.

So, also, it may be caused by a woman's measuring the height of a chair with her eye, and then unexpectedly sitting down to find it three or four inches lower than she had supposed it to be, the sudden jerk being sufficient to bring on uterine contractions. Instances are on record where such a simple matter as blowing out, instead of snuffing out, a candle, by reason of the disagreeable odor of the smoke, has caused a miscarriage ; and I do not doubt that such trivial circumstances will sometimes induce it. These are all exceptional cases, and hardly to be considered. But the rule is that, in the great majority of cases where a woman has repeated miscarriages at the third month, you will find upon examination either a posterior displacement of the uterus, or that there is evidence of constitutional syphilis in the father or mother ; or you may find both these conditions.

Now, this woman's husband is not here, so we cannot examine him at present for symptoms of syphilis ; but she says he is a healthy man, and has promised to bring him here to our clinic next week, so that we may inquire into his condition for ourselves. I think he will come, for he, as well as she, is anxious to have offspring. So we will have to wait till then to determine whether this cause for the repeated miscarriages exists here.

But there is another cause than this which will account for the miscarriages in this case. When I make a vaginal examination with this woman standing in the erect posture, I find that the uterus is bent backward toward the hollow of the sacrum, so that the greater part of the

organ lies posteriorly to a line drawn perpendicularly down through the centre of her body. You may ask if I think that this slight degree of displacement backward is sufficient to account for these repeated miscarriages; and I reply that I think this is a sufficient cause. Then you may ask: "How do you suppose that this insignificant cause can produce such a result?" It would not as it is now, for that uterus is not badly displaced, but is lying only a little posterior to the central line drawn perpendicularly through the body, and, if it would keep the same position as now, it would be of no account either in a pregnant or non-pregnant woman, and no miscarriage would take place. But I will show you what occurs after pregnancy in such a case as this. At the end of the first month the uterus is slightly enlarged and its increased weight has caused it to bend over on itself still more, and so the posterior displacement is a little greater than before. At the end of two months the displacement is so great that the axis of the uterus forms almost a right angle with the perpendicular line drawn through the centre of the pelvis; but even now there is no interference with uterogestation, and the pregnancy goes on. At the end of the third month, however, when the body of the uterus has increased so much in size that it fills up the cavity of the pelvis as it lies displaced in the hollow of the sacrum, the uterus tries to rise up out of the pelvis, and the cervix does go up, but it cannot pull the body up after it, because it is held down by the promontory of the sacrum, and only some lucky accident can release it. The rule is, however, that the cervix rises up, but nothing can get the uterine body out of the hollow of the pelvis; and yet, under certain circumstances, the organ will go on developing for four or five months, perhaps, without interference with the nutrition of the foetus. But usually at the end of the third month the uterus feels the interference with its development, and so it begins to contract, and the cervix opens and labor goes on until the foetus is expelled. Three months after the woman goes to a doctor, perhaps, and asks him the cause of her miscarriage; and he examines her and finds the cervix all right and the uterus lying in the position I described to you as existing in this case at present, with only a slight posterior displacement, and he is at a loss to account for her misfortune. But the real cause of all was that, at the beginning of pregnancy, the uterus was lying a little posterior to a line running perpendicularly through the centre of the woman's body; and you will almost invariably find that the slightest displacement posterior to this line will cause a miscarriage at the third month. Now, this exists in this woman at present, and it may possibly be the cause of her miscarriages; but before deciding I will examine her husband also. If I find that he has had constitutional syphilis, I will say that I do not know whether this displacement of the uterus is the main cause or not; but I will first remedy the condition I find already existing in the woman, and then I will treat the husband for syphilis, if I find it necessary, and I will try to keep him and the



woman apart for a number of months, until I think he is entirely well and can impregnate his wife without transmitting the disease to the child. Even if I find syphilis in him, I will nevertheless treat the difficulty I find in her at the same time.

After the woman has again become pregnant I would watch her carefully as she advances, and have her come to me every four or five days, or, at the longest, once a week, that I might see if every week of utero-gestation was increasing the displaced condition of the uterus. If, by the end of the second month, I should find it bent farther backward than at the end of the first month, I would place the patient on her side or in the knee-chest position, and, with my fingers, push the uterus over into its proper place, and put in a pessary to keep it in position. Supported in this way, the uterus is able to rise up out of the pelvis as it enlarges, and pregnancy is therefore allowed to go on. If you try this plan of treatment in such cases you will often have reason to feel satisfied with the results.

Let me tell you of a case I treated some twenty-five years ago. A lady came to me who said that she had had twelve miscarriages in succession. I examined her, and found just such a condition as we have in this case. None of the doctors who had previously examined her had discovered the presence of this displacement, because she had gone to them after each miscarriage, when the uterus had returned to its proper position. She was almost insane from these repeated disappointments. So, after she had again become pregnant, she came to me at the end of the third month of gestation, and I easily recognized a decided posterior displacement. To remedy this, I pushed the body of the uterus up above the promontory of the sacrum and put in a pessary to keep it there, and I had her return every two or three weeks so that I might adjust the pessary and see that everything was progressing favorably. She was delivered of a living child at full term, and she went on from that time through four successive pregnancies without having a single miscarriage, and this plan of treatment was carried out each time. Now, I do not say that a single case proves the efficiency of this plan any more than that "one swallow makes a summer." But I have had a whole flock of just such "swallows," and they have abundantly established the effectiveness of this treatment. I am talking now, remember, only of miscarriages occurring at the end of the third month, but they will form 75 to 80 per cent. of all the cases you will meet with. The moment I see a woman who tells me that she aborts regularly at the end of the third month, I am so certain of the cause that I say to myself that she has either a slight or a great displacement of the uterus, or else there is syphilis in the family. So, in case I find no displacement of her uterus, I always look carefully for any signs of syphilis in the husband or in the woman herself. And remember, gentlemen, that syphilis sometimes creeps into the system of a perfectly virtuous woman, and no one knows how it got there. Syphilis certainly develops accidentally sometimes,

and I think it is a mistake for some physicians, who ought to know better, to laugh at the statement of a man who, when asked where he got his syphilis, says that he caught it from a privy, or in some other unusual way. I see nothing to laugh at in such a statement, and it seems to me that the joke is entirely out of place, for I do not see why the disease may not occur from such exposure. I have known of the case of a sewing woman in this city who became infected with a true Hunterian chancre, followed by a secondary eruption, apparently in the following way : she accidentally pricked herself in the breast with a pin which had probably retained upon it syphilitic virus from the hand of the woman in France who had made it, and who had doubtless just been dressing her chancre previously to sticking the pin on the paper to send to this country, where it was destined to infect her innocent sister.

Now a few words in regard to another class of cases besides those which occur regularly at the end of the third month. In this class the mother passes safely through the early months of pregnancy, but at the end of the seventh month, perhaps, she notices that the movements of the child *in utero*, which have previously been vigorous enough, are now becoming more feeble, and the next day they are feebler still, and so on till in a few days they have ceased altogether, but she goes on to full term and then brings forth a dead child. This thing may have been repeated six or eight times before she comes to you to seek for the cause and its cure. If you examine the placenta at the completion of one of these labors you will almost invariably find that it has undergone a fatty degeneration. The only way of preventing this woman from constantly bringing forth still-born children is to tell her to watch carefully during the latter months of pregnancy, and to let you know as soon as she feels that the child's movements are beginning to lose their vigor, and then you should immediately induce labor and bring on a premature delivery. If it is in the seventh month, you may be able to preserve the life of the child, and your success will be more assured if delivery can be postponed till the end of the eighth month, or for eight and a half months. But the rule should be, the moment you find the child is in danger of death by reason of the degeneration of the placenta bring on labor.

The next patient is Mrs. A. E., thirty-seven years of age, a native of the United States, who has been married eighteen years, and been sterile all through her married life.

She says that she has been sick for ten years, and she complains chiefly of a tired feeling all over the body, and of general weakness and lassitude, with much pain in the back and neck. She is regular in her monthly periods, but at such times she suffers from pain in the head and breasts. She also has a constant watery-looking, but thick and tenacious, discharge from the vagina. She complains of nothing except a pretty severe cough.

Now, without an examination this is a perfect enigma, gentlemen, and so you will find with many, many cases ; and, when a man is so

squeamish that he thinks it a crime to examine a woman unless he suspects some very serious condition, I do not see how he gets on in practice. At one time not long ago, you know, it was generally thought that an unmarried woman ought not to be examined except in very unusual cases ; and I am sorry to say that there are still some who carry out this belief, and thereby make themselves responsible for much misery that might otherwise be relieved if the causes were discovered. I constantly am making such examinations in young women of sixteen and upward, and I never hesitate where I am in doubt as to the cause of any serious difficulty.

This patient is healthy-looking, but she has an appearance of lassitude, and she complains of great pain in the back and a sense of discomfort and weariness, which she dates back as beginning ten years ago. In addition, her sterility is a source of disturbance, together with a profuse leucorrhœa and occasional pain in the head and breast. Now, you might investigate this case, with only the rational signs to help you, for any length of time, without obtaining any light as to the true condition present ; but, when you make a physical examination, a flood of light is thrown over it at once.

This is what such an examination reveals : As the woman lies on her back, on passing my finger up the vagina I find the uterus is thrown over backward, and with one finger on the cervix and the fingers of the other hand pressing down through the anterior abdominal walls, I discover a large tumor lying on the upper side of the uterus, between its fundus and my hand, which appears to be three or four times as big as the uterus itself, rounded in outline, and moving with the uterine body. How could you ever have told what was there without an examination ? The man who would prescribe for that woman without making an examination is one of two things. He is either an ignorant or a dishonest man.

Now that we have found out the presence of a hitherto unsuspected tumor here, the question arises : "Is that the diagnosis ?" There is the mass which, when carefully examined, would leave some doubt as to its character did we not have a history to aid us which points to a uterine fibroid. But is that the whole diagnosis ? By changing the position of the patient so that she lies on her side, and putting in a Sims' speculum, from the cervical orifice could be seen poured out a secretion of thick, tenacious mucus. I passed a small sponge, held in a pair of forceps, up to the cervix and twisted it about, and, on withdrawing it, I could pull this mass of mucus down to the mouth of the vagina, when it broke and sprang back like a piece of India rubber. Then I said this is the immediate cause of the sterility, as such discharge always is when it is found habitually pouring out of the cervical canal. This was doubtless caused by the malposition of the uterus, which, from lying back in the hollow of the sacrum, was kept in a state of chronic congestion, giving rise to a chronic endometritis. Now let us return to the tumor and inquire again

what it may be. The abdominal walls are so thick that I could not map it out accurately, or tell whether there was any fluctuation in it or not. Now, I ask, May this not be an ovarian tumor? As a rule, women with ovarian tumors become greatly exhausted within three years. Yet there are exceptions to this rule. Three months ago I operated at the Woman's Hospital for a tumor which Dr. Sims had, twenty-four years ago, declared to be an ovarian tumor of the size of a cocoanut. When I removed it, it weighed sixty pounds, and the woman got perfectly well after the operation. This tumor had unquestionably been growing for at least twenty-four years. The same week I removed another ovarian tumor that had been growing fifteen years. Fourteen years ago it had been tapped for the first time, and since then this operation had been repeated sixty or seventy times, and finally I removed it after it had been growing for fifteen years. I have frequently removed such tumors after they have been growing for nine or ten years. So this *may* be an ovarian tumor, or it *may* be a fibrous tumor. I should like very much to know which it is. If I should only pass an aspirating needle into it through the vaginal or the abdominal walls, I might easily make the diagnosis; but if I did this you might, with reason, say that I was inexcusably rash, for an immediate decision of the matter is not necessary, and exposing the patient to danger to solve the problem would be unwarrantable. This woman is already thirty-seven years of age, and she will probably stop menstruating in three or four years, and then the tumor may cease growing, and she may live till seventy years of age without suffering any harm from its presence.

I talk about this so fully because I have seen so many bad results come from aspirating merely for the purpose of diagnosis. Even the smallest hypodermic needle has its dangers when used in this way. In case there was any necessity for making an accurate diagnosis, I would not hesitate to use the aspirator; but, where nothing is to be gained by the knowledge thus derived, I would avoid the risk.

Now, I will tell this patient that the best thing for her is to go home and let herself alone. I will prescribe a bitter tonic, to improve her appetite and increase her strength, for she looks quite bloodless, and she has a small, feeble pulse; and, besides, I will put her on the syrup of the hypophosphites. Then I will tell her to wash out her vagina twice a day, so as to remove this secretion which keeps up a constant irritation in the vaginal canal; and that is all she needs. I would do nothing to favor the occurrence of pregnancy, because I think it is a highly desirable thing that she should not become pregnant, on account of the size and situation of this tumor, which would interfere with the proper development of the uterus.

It is a good rule to guide you always, when you are in doubt as to whether you had better risk any doubtful proceeding, to suppose your mother, or sister, or wife in the same position as the patient, and then do for her just what you would for one of them under corresponding

circumstances. Now, I don't think, if this patient were a valued relative, you would plunge an aspirator into that tumor just to determine its character, when you could do nothing more to help her if you knew its true nature. I think there would be fewer accidents if men would remember and follow the rule I have just given you.—*N. Y. Medical Journal.*

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## SELECTIONS.

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**SUTURE OF NERVES AFTER DIVISION.**—From the "Quarterly Retrospect of Surgery" (*Canada Medical and Surgical Journal*), prepared by FRANCIS J. SHEPHERD, M.D., C.M., M.R.C.S., Eng., Surgeon to the Montreal General Hospital; Professor of Anatomy and Lecturer on Operative and Minor Surgery, McGill University.

All surgeons are agreed as to the propriety of uniting by suture the ends of nerves seen divided in recent wounds, but the suture of divided nerves long after the original wound has healed has not yet been extensively practised. Many cases of successful suture of divided nerves have lately been reported in the various medical journals. Mr. T. Holmes (*Lancet*, June 16, 1883) reports a case of suture of the musculo-spiral nerve five months after its division! The scar of the wound which severed the nerve was on the outer side of the back of the right elbow. Sensation was completely lost in right hand and forearm for a week after the accident, but partly returned after this time. On admission to hospital, the patient could pronate and supinate his forearm, with the elbow flexed, but could not extend the fingers or wrist in the slightest degree, and supination was impossible in the extended position of the forearm. The limb was much wasted. No pain was suffered, but there was a tender spot at the extreme end of the scar, just external to the biceps tendon. Operation was determined upon, and on cutting down, the two ends of the nerve were found without much difficulty. The upper end of the nerve seemed to have retracted, and terminated in a bulb the size of a common pea; the other end was somewhat atrophied. The two ends were more than an inch apart; a little of the lower end of the nerve was taken off to freshen it, and part of the bulb on the upper end removed. The ends were easily approximated and kept in position by catgut and fine silk sutures. The operation was performed antiseptically, and the wound united by first intention. The operation was performed on March 10th, 1881; by March 15th there was some light power of extension returning, and a few days later sensation on the back of the hand was more perfect. The patient then left the hospital, and was not heard of for two years, when he returned to show he had completely recovered—sensation was perfect, and there was no difference in the size of the two arms. The patient said that it was about a year before improvement was very obvious to him, then he began to mend rapidly. Mr. Holmes remarks that to Mr. Wheelhouse we are indebted for having brought this operation prominently before the profession; his great success in uniting a sciatic nerve nine months after its division encouraged surgeons to adopt the operation. The uniting of divided nerves in recent wounds has been largely practised, and with much success; but as in these cases the wound very frequently recovers its function without this procedure, it is impossible to say whether the same results would not have followed had no suture been used; but Mr. Holmes asks: "Is

the case of old injury and persistent loss of function really different? Will the nerves in these cases recover their functions if left to themselves?" That they do in some cases Mr. Holmes thinks is certain, and gives cases to prove it, but, he remarks, such a favorable issue is highly dubious, especially, as in his own case, where the interval between the divided ends is large and the nervous filaments are included in a large bulb. In such a case, any restoration of its anatomical continuity appears hopeless. Statistics as to the results of secondary suture are not of much value, because many cases are reported too soon after the operation, many cases not being greatly benefited till some time has elapsed after the operation, as in Mr. Holmes' case. Tillmanns records 13 cases of secondary suture; of these, Mr. Holmes classes 8 as successful, 3 as dubious, and 2 as failures. Mr. Bowlby, in his Jacksonian prize essay on the *Injuries of Nerves*, records 20 cases, 6 only of which were perfectly successful. With regard to the time after the injury at which the operation should be undertaken, Mr. Holmes says we are not yet in a position to lay down certain rules. If the parts are quiet, and the wound completely healed, there can be no motive in deferring the operation. However, Mr. Jessop operated on the ulnar nerve with partial success nine years after its division. Mr. Holmes lately united the median and ulnar nerves eight days after the accident, and though it would have been better to have waited till all inflammation in the wound had passed over, or even till the wound had entirely united. Mr. Holmes thinks that in suturing the ends of the divided nerve it matters little whether the suture be passed through the thickness of nerve or not, as long as the sutures have a firm hold. He uses catgut ligatures, reinforced with one or two of fine silk or horse hair. No instance has yet been recorded of any harm from the operation—no tetanus or acute neuritis.

Mr. Herbert W. Page (*Brit. Med. Jour.*, June 23rd, 1883) records a case of secondary suture of the ulnar nerve six months after its division. The nerve was divided near the wrist; after the wound healed, the cicatrix was very painful, and the little and ring fingers became bent and useless, so that patient had to carry his hand in a sling. His general health became seriously affected by the constant pain in the wound and its neighborhood. Sensation was very defective, though not entirely absent. At the patient's request, operation was decided upon, and the separated ends of the nerves found with much difficulty. The upper end of the lower portion was imbedded in thick cicatricial tissue, but was not enlarged; the lower end of the upper portion was swollen to about three times its natural size, and ended in a firm bulbous nodule, which was bound in cicatricial tissue. It was necessary to dissect the upper part of the nerve free for about two inches before the two ends could be brought together. They were joined by three fine catgut sutures passed through both sheath and nerve. The wound healed by first intention, and when he left the hospital, some three weeks after the operation, sensation had decidedly improved, the cicatrix was free from pain, and he had some returning power of extension of the last phalanges of little and ring fingers. In a fortnight after patient had made little progress, so he was placed under the care of Mr. De Watteville for treatment by electricity. Electricity was continued for a year by Mr. De Watteville, and, having gained fair use of his hand, he ceased to attend the hospital, but applied the faradic current himself for six months. When last seen he had been at work for several months, and his hand was as useful as ever. Mr. Page attributes his patient's recovery to the steady and long-continued use of electricity to restore the nutrition of the wasted muscles; but might not the same result have been accomplished without it, as in Mr. Holmes' case?

In another similar case, however, of Mr. Page's, operated on at the same time, result was not so fortunate, because the patient, being a nervous, hysterical woman persisted in keeping her hand in a sling, and refused to have electricity applied,

CHEAP AND GOOD FOOD.—T. R. Allison, writing to the *London Times*, says : Allow me to bring under the notice of your readers some experiments I have just concluded to solve the difficulty of feeding our poor in London and elsewhere. The cry is that food is so dear that the poor can scarcely live. This cry is true if they want to live on luxuries, but if they will live on wholesome, but plain and healthy fare, they can do so for very little. A little over a month ago I determined to give up all expensive articles of food and live almost as cheaply as possible. Having left off flesh foods for nearly two years, and lecturing frequently on the question of food, I knew what to select. Looking over my food accounts I found milk, butter, eggs, and cheese, with tea and coffee, were fairly expensive articles, and none of them necessary, so I gave them up for a time to see results. On October 19 I began my experiment; my weight was then 9 stone 8 ounces. I continued this purely vegetarian diet for a month, when my weight was 9 stone 3 pounds 12 ounces, or a gain of  $3\frac{1}{4}$  pounds. My friends said I looked well; I felt well, and did my usual work the same as ever. I walked from 10 to 15 miles daily, seeing patients or taking exercise. Here is an account of my dietary, which cost me little more than sixpence a day, and I could easily live for less without luxuries: Breakfast consisted of a basin of porridge, made from a mixture of oatmeal and wheatmeal, which I found more palatable than either singly. This I usually ate with bread to insure thorough insalivation. Then came bread fried in refined cotton seed oil, or fried vegetable haggis. For drink I had a cup of cocoa or fruit syrup, with warm water and sugar. The cocoa used was an ordinary one with plenty of starch in it, which makes a thick drink, and no milk is then required. Dinner consisted of a thick vegetable soup and bread, potato pie, savory pie, vegetarian pie, vegetable stew, stewed rice and tomatoes, etc. For a second course I had bread plum pudding, stewed rice and fruit, baked sago, tapioca and apples, stewed prunes, figs, raisins, and bread. Tea meal consisted of bread and jam, stewed fruit, or some green stuff, as watercress, celery, tomatoes, etc. I had only three meals a day, and frequently, when very busy, I had only two, and a cup of cocoa and a biscuit for supper. I always use the whole-meal bread, as it is laxative and contains a good deal of nitrogen, which is thrown away with the bran. The cotton seed oil is a cheap and good cooking oil, and is impossible to detect. This diet I continued for a month, and now I only take the animal products when out, not having them at my table.

Now compare this diet with one of flesh or a mixed one. The latest analysis shows flesh to contain from 70 to 74 per cent. of water, the dry residue being very rich in nitrogen, and it contains a little carbonaceous or fatty matter. Hence, to live on meat alone, as much as 8 pounds a day are necessary. Then there are to be considered the diseases of animals, which are communicable to man if that flesh be not thoroughly cooked all through; and as very few of our animals live a perfectly natural life, most of them are more or less diseased, especially the fat ones. The excess of nitrogen taken into the system in eating flesh meat has to be got rid of by the liver, kidneys, and lungs; hence, these organs are overtaxed, and much disease is the consequence. In fact, were it not for flesh food we doctors would have very little to do. Man living in towns cannot afford to eat much flesh, because he does not get sufficient exercise and oxygen to burn up the excess of nitrogen. If he does eat this flesh, and if he eat much, then he must suffer from many complaints, such as indigestion, bilious attacks, congested liver, hæmorrhoids, gastric catarrh, and other gastric troubles. If the habit be continued in, gall stones or urinary calculi may follow, or rheumatism and gout. Then the kidneys become diseased, and more work is thrown on the heart, which becomes also diseased; the end is death by one of the lingering diseases which shows a diseased organ somewhere. Even epilepsy and many nervous diseases are aggravated by flesh. Cancer is on the increase, and,

from some observations I have made, it may be directly traced to flesh. Consumption has only a remote connection with flesh, it being due chiefly to want of fresh air. Vegetable food is cheap, contains an abundant supply of nutriment at first cost, and our systems are so formed as to use it with least expenditure of vital force. We use no cruelty in obtaining our food, and can easily see if it be wholesome or in a rotten state.

By means of our diet much disease is prevented, and even most chronic cases of present disease can be alleviated by it. If we want a cheap dietary we have the following foods to choose from: Wheat, oats, barley, maize, rice, sago, tapioca, semolina, hominy, peas, beans, lentils, etc., which are all concentrated foods and very rich in nutriment. Potatoes, parsnips, beets, carrots, turnips, onions, cabbage, sprouts, etc., give variety, bulk, and flavor; to these may be added the sweet herbs for making savory dishes. Apples, pears, currants, gooseberries, plums, strawberries, raspberries, blackberries, and other fruits, with melons, peaches, grapes, etc., are high-priced but wholesome fruits. The dried fruits, as dates, figs, apple rings, currants, raisins, etc., are cheap and good. To these may be added tinned goods. Thus one can see the immense variety of tasty things we have, and these to suit all purses. We can add to these milk, butter, cheese, eggs, and honey, which are got without killing animals. But if we take animal food, then fish is least injurious, then beef and mutton, while veal, pork, game, etc., are very indigestible, and ought to be avoided.—*Knowledge.*

PRACTICAL POINTS FROM PHILADELPHIA CLINICS.—The *Medical Herald* gives the following practical points from Philadelphia clinics:

Dr. Carl Seiler removes polypi from the nasal cavities with the snare, as this causes less bleeding than the polypus forceps, and touches them with the galvano-cautery. This prevents the return of the growth, which nothing else will, the doctor having tried iodine, chromic acid, etc. This procedure certainly merits further trial.

Dr. Wharton recommends that superficially situated nævi be cauterized with strong nitric acid, applied with a glass rod. The resulting slough is followed by a white cicatrix. More extensive nævi call for other treatment.

For catarrhal, or herpetic, or diphtheritic tonsillitis Prof. Pepper recommends constitutionally absolute rest, large doses of quinine, drop doses of tincture of aconite, and liquid diet, and locally the application of the muriated tincture of iron.

Prof. Tyson often prescribes a mustard plaster prepared with molasses instead of water. For prolonged and mild counter-irritation this acts excellently, as patients often have the plaster on their backs for hours while fulfilling their daily duties. Dr. Tyson also has great faith in jaborandi and its active principle, pilocarpin, in the treatment of uræmia. He considers it *the* remedy for such cases. In Bright's disease and in diabetes the doctor prescribes an exclusive milk diet. He gives only skimmed milk.

Dr. Strawbridge poultices the external ear in the following ingenious manner: He lays the patient's head on the table and fills the external ear with as hot water as can be borne. Over the ear are applied towels soaked in very hot water, the surplus water being drained off by squeezing the soaked towels between dry ones.

Dr. Louis A. Duhring recommends for acne, sulphur in some form; preferably the sulphate of calcium internally, and locally the following prescription at bedtime: ℞. Sulphuret. potash, ʒ ss; sulphate zinc, ʒ ss; glycerine, ʒ j; alcohol, fl ʒ j; water, fl ʒ j. M.

For eczematous sores in children and old people recommends an ointment of five grains of iodide of lead to the drachm of vaseline.



Dr. Ellerslie Wallace describes *nux vomica* as the great invigorator of the sexual organs. He gives from one-half to one grain dose of the extract of *nux vomica* three times a day after meals.

Dr. John Ashhurst, Jr., says it is the surgeon's rule for ligation of an artery to cut down over the pulsation of the artery where he feels it. Of course the surgeon should know the anatomy of the parts, as well as the lines for cutting as laid down in the books.

Prof. Da Costa says, do not aspirate pleuritic effusions as long as no urgent symptoms, such as failure of the heart and symptoms of blood-poisoning, demand it, for the liquid will generally reaccumulate, and the second time it will be purulent. Give iodide of potassium and other remedies to promote absorption and to make the kidneys act. For the latter the infusion of juniper and jaborandi internally, and dry cupping over the region of the kidney will be often of benefit.

Prof. Tyson divides the treatment of acute rheumatism into three kinds to suit different types of cases. Rheumatism occurring in persons of nervous rheumatic temperament who lead a sedentary life, but are otherwise well fed and clothed, should be treated by salicylic acid or the salicylate of sodium; twenty grains of the latter every four hours for the first twenty-four or forty-eight hours. Continue the medicine after convalescence is established for some time—about as many days as the disease itself lasted. Rheumatism occurring in obese persons who are free livers and who use malt liquors will be best treated by the alkaline treatment. One and a half drachms of bicarbonate of soda in lemon-juice every four hours for four days, afterward twenty grains three times a day combined with iron and quinine. Rheumatism occurring in anæmic persons who have been underfed and overworked should be treated with the tincture of iron. When the types shade into each other, give the salicylic acid with the other treatment. The diet should consist of skimmed milk, chicken or mutton soup, beef broth or other liquid diet. Anodynes and the old "six-weeks-abad" have gone out of date.

Dr. Wm. Goodell, the world-famed gynæcologist of the University recommends for pruritus vulvæ: ℞. Carbolic acid, ʒ j; morphine sulphate, gr. x; boracic acid, ʒ ij; vaseline, ʒ ij. M. And also the patting of the parts with a sponge soaked in boiling-hot water. This is also a most excellent application for that rawness so often found between the thighs of the newly born.

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BEER DRINKING.—From *Good Health* we learn that the President of the Connecticut Mutual Life Insurance Company has for years been investigating the relation of beer drinking to longevity. His object was that he might solve the problem whether beer promotes vitality or otherwise; in other words, to know whether beer drinkers are desirable risks to a life insurance company. We give his conclusions. He declared, as the result of a series of observations carried on among a selected group of persons who were habitual drinkers of beer, that although for two or three years there was nothing remarkable, yet presently death began to strike, and then the mortality became astounding and uniform in its manifestations. There was no mistaking it; the history was almost invariable; robust, apparent health, full muscles, a fair outside, increasing weight, florid faces; then a touch of cold, or a sniff of malaria, and instantly some acute disease, with almost invariable typhoid symptoms, was in violent action, and ten days or less ended it. NOTE.—Bright's disease, once so rare now so common, destroys a large percentage of beer drinkers.

## ORIGINAL CORRESPONDENCE.

## ON CRAMMING AND EXAMINATIONS.

*To the Editor of Gaillard's Medical Journal :*

SIR: Mr. Walter Wren, "the eminent English crammer," and a number of correspondents of the *Times*, have shown up the "cram" and the "exam." in a new light, which gives the impression that cramming is the groundwork of an English education. One writer states that he crammed his son "on subjects of which he knew literally nothing," and "so stuffed him that he passed easily." He tried him again shortly after, and found "his mind had returned to its original vacuity." This is the humiliating testimony of a fond parent, whose experience is that knowledge will be found in inverse ratio to the cost of education.

It is some satisfaction to know we do not possess the monopoly of superficial education, but we cannot be blind to the fact that at all our educational establishments we try to teach too much in a short space of time. The average American mind, like the average American stomach, suffers from *indigestion*. This is especially the case at our public and Government schools—Annapolis and West Point. The latter is ahead of the former school in thoroughness, as unfortunately there are too many young naval officers who teach because they are ordered to teach, without being qualified for that duty. An examination, such as is required for the "Civil Service of India," could scarcely be passed by the "star" graduates of these expensive institutions. In the professions of physic, law and divinity, our standard is notoriously low. A higher academical or collegiate education should be required before matriculation, and it should be made the duty of every preceptor to insist upon this qualification. From the American Medical Association should be chosen every five years a Supreme Medical Council, which should be charged with the examination (or supervision of the examination) of all regular medical men in the United States. By this Body should be granted a national diploma. This need not interfere with the rights of faculties of colleges to examine as much and as often as they please, but the final examination and legal license to practise should come from the Supreme Council, selected from the representative medical body in this country. The best men should be selected, and appointed with a salary of \$10,000 a year, which could readily be collected by a \$30 or \$50 fee for every graduate.

As for Government examinations, as now conducted, they are useless and humiliating. A rigorous entrance examination should be required, a second examination at the end of five years, and another after ten years of service, all of which should be competitive. This would weed out the drones, and further examinations should be unnecessary, indeed, would be an absurdity, and no proof of an officer's real knowledge or practical skill.

STRIX.

LOUISVILLE, KY., Feb., 1884.

DEAR DOCTOR GAILLARD: I subscribed for your JOURNAL in January, 1867, and have now all of the numbers up to date, those for 1866, and April, 1868, excepted, which numbers I am anxious to obtain by purchase or exchange. I have, through a friend now dead, many copies which I would dispose of, and I am sure that libraries or physicians would be glad thus to complete broken sets. Letters on the subject may be addressed to yourself (Box 1,124, N. Y.), and I would thank you to have them forwarded to me. I will dispose of my duplicate copies at cost. Here is the list: 1867, Jan., Feb., Mar., 2 of April, June, July, Aug., Sept., Oct., Nov., Dec.; 1868, June, 2 of Nov., Oct., Aug., Sept.; 1869, complete; 1870, complete; 1871, complete; 1872, 2 of Jan., 2 of Feb., Mar., April, 2 of May, 2 of June, 2 of July, 2 of Oct., Nov., Dec.; 1873, Jan., 2 of Mar., April, May, June, July, Aug., 2 of Sept., 2 of Oct., Nov., Dec.; 1874, 2 of Jan., Feb.; 1879, Aug.

I have the following extra copies: 1869, April, May, June, July, 2 of Aug., Sept., Oct., 2 of Nov., Dec.; 1870, 2 of Jan., Feb., 2 of May, June, 2 of July, 2 of Aug., 2 of Sept., Oct., Nov., 2 of Dec.; 1871, Jan., Feb., Mar., April, July, Aug., Sept., Oct., Nov.

Very truly yours,

S.

## SCARLET FEVER AMONG HORSES.

*To the Editor of the New York Times:*

You give me too much credit when you make it appear that I first advanced the theory that scarlet fever originates among horses. This credit belongs first to the celebrated Prof. Copland, editor of a huge medical encyclopedia published in 1859, and next to Dr. Robertson, F.R.V.S., Principal and Professor of Hippopathology, or diseases of horses, in the Royal Veterinary College, London, and editor of a text-book on the practice of equine medicine, July, 1833. The celebrated Dr. Percivall, V.S., of the First Royal Life Guards, was the very first to clearly describe scarlet fever in the horse in modern times, viz., in 1834, or nearly 50 years ago. My labors have merely consisted in endeavors to prove or disprove, as the facts would seem to warrant, the opinions and conclusions of these eminent men.

Percivall says: "The first account of scarlet fever in horses was published in the *Veterinarian* in 1834. This," he continues, "has received such confirmation from other quarters as to leave no doubt in his mind that, rare as the malady acknowledgedly (or seemingly) is, and hitherto undescribed as it has remained, it will one day find a place in our established veterinary nosology. It is difficult to say to what extent scarlatina in horses prevails in this country [England], for there are very few persons qualified to define such a disease; in fact, the majority of men do not know that such an affection ever manifests itself in horses. From the fact, however, that I [Percivall] have seen cases within the past four

years occurring in this city [London] I am led to suppose that it may prevail at certain seasons to some extent."

Copland writes: "I [Copland] have lately had reasons, indeed evidence, for the following inferences:

"1. That scarlatina was originally a disease of the horse, and that it formerly occurred, and has even recently occurred, epidemically or as an epizooty among horses.

"2. That it was communicated in comparatively modern times from horses to man.

"3. That it may be and has been communicated also to dogs.

"While this article was passing through the press, Mr. Percivall, Veterinary Surgeon to the First Regiment of Life Guards and the author of a very able and well-known work on the diseases of the horse, very kindly furnished me [Copland] with additional evidence in support of these opinions, and also referred me to the second volume of his work, where scarlatina in the horse is mentioned. (See *Scarlatina equi: Scarlatina canis.*)

"Scarlet fever was first generated in the lower animals, or occurred among them as a pestilence or epizooty, not unlikely first among the equine race, and was then communicated to man."

Robertson says: "Scarlet fever rarely occurs as an independent or idiopathic disease in the horse, but generally as an accompaniment or sequel of some other debilitating affection, as influenza, distemper, strangles, &c., or when not associated directly with these it seems to have some ill-defined relation to them. I [Robertson] have observed that when a severe visit of these eruptive fevers, viz., measles and scarlatina, has occurred among human being in a particular [city, town, or] locality some idiopathic cases of this particular fever of the horse would show themselves, and that more than the average number of horses suffering from catarrhal affections would exhibit distinctive features of scarlatina. We cannot certainly predict which cases of catarrhal or other debilitating disease will be followed by scarlet fever, save in so far as these are the result of infection or contagion developed from cases which have exhibited similar complications.

"*Causation.*—The greater number of animal sufferers from this affection [scarlet fever] are those which immediately antecedent to their giving evidence of this condition have passed through some constitutional and debilitating disease. Their systems are yet charged with, or at least not entirely rid of effete and deleterious matters . . . which, aided by bad hygienic surroundings, culminate in a still more unhealthy and vitiated state of the blood, finally resulting in an outbreak which is called scarlet fever."

It is true that Robertson elsewhere says that the disease often presents but a faint analogy to scarlet fever in man, but as he has mixed acute red salt rheum and acute eczema rubrum in his description this is not to be wondered at.

Robertson's views point to the spontaneous generation of scarlet fever in horses, and perhaps men, which I am not yet prepared to accept, although I have found many proofs of it. The first distinct account of scarlet fever in man only dates at A.D. 1610, while in horses it was noticed in A.D. 1514. Still I am not yet prepared to accept Copland's views, although I have found many additional proofs of them. I believe decidedly that scarlet fever sometimes affects horses, and that they both give and receive it from human beings; that horses and stables should come under good sanitary control as well as poor people and tenement houses. I believe that Percivall's description of scarlatina is best that has yet been given, and suggest that the disease be called Percivall's scarlet fever; or if a new name be required, or be better in view of the many discussions and disputes which must necessarily arise over the curious descriptions which have been and will be given of horse scarlet fever, that it be called rosalia. Rosalia was the old, almost classic, name for scarlet fever. Dr. John Mason Good, 1829, says: "Scarlatina is a barbarous and unclassical term, that has unaccountably crept into the nomenclature of medicine, upon the proscription of the original and more classical name of rosalia. Dr. Morton had a mortal aversion to the term scarlatina, and De Haen appears to have had nearly as great a dislike to it."

JOHN C. PETERS, M.D., N. Y. City.

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## SANITARY DEPARTMENT.

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**BOSTON'S IMPROVED SEWERAGE SYSTEM.**—On the first day of January the new system of intercepting and delivering sewers for that part of Boston situated between the Charles and Neponset Rivers, which has been in construction for a number of years, was inaugurated. Members of the Massachusetts Medical Society will recall that they were invited during the last annual meeting of the society to inspect the main sewer, and those who did so are somewhat familiar with the system of which it forms a part. As the growth of the city demanded, sewers were built years ago, each emptying at a locality most convenient and least annoying. According to the new plan a series of intercepting sewers has been constructed belting the city and communicating with the older sewers near their mouths by means of small branch or connecting sewers, provided with gates to regulate the flow. The old outlets are to be for the most part kept open, to be used for storm overflows, and those below tide level will be provided with a double set of gates to prevent the tide from flowing in.

The great bulk of the sewage is, however, by the new system to be conveyed to a considerable distance from the shore, and deposited where it is believed, and thus far proved, that it will not be obnoxious or injurious. The various intercepting branches converge into one main sewer, which runs in nearly a straight line to old Harbor Point, Dorchester, where there is a pumping station. At this point extensive works

have been erected, the first of which is a filth hoist, through which the sewage passes before it reaches the pumping station. The filth hoist consists of two chambers, in each of which are hung, so as to be raised and lowered by winches, open cages through which the sewage flows and which retain any large floating objects that would injure the pumps. They are arranged in pairs, one behind the other, so that one may be in place while the other is drawn up for cleaning.

Four engines, each of a capacity to raise 25,000,000 gallons in twenty-four hours to a maximum height of forty-three feet, are now in position, and it is designed eventually to double this pumping capacity, allowance having been made for two boiler houses.

The outfall sewer extends from near the engine house to the reservoir on Moon Island, a distance of a little more than two and a half miles. The first portion of the outfall sewer, a section of 1,200 feet, is the deposit sewer, which is carried into Dorchester Bay on an embankment; the second portion, having a horizontal length of 6,970 feet, is the tunnel under the bay in the form of an inverted syphon, at whose entrance is a vertical descent of 150 feet, the level being regained at the farther end by a rise of one foot in six; the third portion extends from Squantum Neck, on the further side of Dorchester Bay to Moon Island, where it connects with a reservoir having four compartments with a total capacity of 25,000,000 gallons, from which the sewage is discharged at ebb tide into deep water by an outlet sewer.

The total estimated cost of these sewers for the south side of Charles River, including an allowance of \$300,000 for rebuilding and connecting old sewers, was placed in 1876 at \$3,750,000 the actual cost has been thus far about \$4,500,000, and \$750,000 more will be needed. But much of the work proved far more difficult than was expected, and several contractors met with serious losses. The important thing is that the work seems to have been well done, and the system to practically answer the expectations that were formed of it. For the district on the north side of Charles River a main sewer and branches of fifteen miles length with other works, at a cost of more than \$3,000,000, will be required, but are not yet contracted for.

In addition to relieving the waters of Charles River and its flats, which had become extremely offensive, the present sewers, providing for a constant and uninterrupted flow of sewage from its entrance to the outfall sewer, deliver the city from the cesspool tendency of the old sewers; whether the level of the ground-water will be lowered, as was at one time anticipated, it is as yet too early to determine.

It will be easily seen that with the surface drainage of the city and the great consumption of water—between ninety and one hundred gallons per head daily—the sewage, when reaching Squantum or the reservoir on Moon Island, will be extremely dilute, yielding but a small percentage of solid constituents and those of a soluble character. It is not reasonable to anticipate any annoyance from its discharge into deep water on

an ebb tide, either to those navigating this outer portion of the harbor or to those occupying neighboring shores; the full sewage product of the district drained is not as yet discharged through the intercepting sewer, but of the large amount which is discharged all trace is dissipated in the ocean even more readily than was anticipated. Whether any other disposition could be advantageously made of this sewage when once delivered at Squantum or at Moon Island is a subject whose discussion we reserve for another occasion. Enough is already known, however, of the working of the present system to permit us to say that those who designed and executed it deserve well of the city, as will doubtless be evidenced in due time by a diminished death-rate, and more immediately by a relief of offended senses.—*Boston Medical Journal*.

NOTE.—All very scientific and well arranged, but the entire conception is bad and ruinous. Such matter should go to the soil and not to the sea. It is profligate, senseless waste.

THE TOTAL DESTRUCTION OF HUMAN BODIES.—M. Aimée Girard having lately proposed at the Académie des Sciences the destruction of the bodies of animals dying of virulent diseases by means of sulphuric acid (as their interment does not always secure from the danger they may cause), M. Régnard resolved to try the effect of this substance on the human subject. His experiments with the bodies of new-born infants and fœtuses have been completely successful, and would no doubt be equally so if tried on the adult. To the body of an infant he adds about double its weight of the sulphuric acid of commerce, and after 24 or 30 hours of maceration not a vestige of the body remained—the decomposition having taken place silently and without any smell. Neither the microscope nor the test-tube can detect the slightest trace of the body, beyond the presence of some fat, phosphoric acid and nitrogen. M. Régnard points out how easily a body may be made away with by means of a substance so easily procured, and suggests that some restrictions should be placed on its sale.—*Revue Med.*, Dec. 1.

BRITISH HYGIENE.—North Shields, it may be stated for the benefit of those who are not familiar with the geography of those parts, is hard by Tynemouth, the favorite watering-place and health-resort of the dwellers in the populous Newcastle district. In many houses there is no privy accommodation, and all the refuse of every kind is thrown into the centre of the court, so that the atmosphere outside the dwellings is more noisome than that within. Dr. Barry was informed that this absence of privy accommodation had been known in some instances to lead to the deposition of all filth under the flooring, or in the cupboards of the houses. It is not surprising to hear that these sanitary conditions have markedly influenced the mortality in North Shields, the Medical Officer of Health reporting, in his summary for 1882, that the death-rate for the township had reached as high a figure as 34.4 per 1,000 living.—*Med. Times and Gazette*.

## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—Ed.]

NEW YORK ACADEMY OF MEDICINE, JANUARY 3, 1884. A MEMOIR OF DR. JAMES MARION SIMS. By THOMAS ADDIS EMMET, M.D.

James Marion Sims sprang from the Scotch-Irish stock who settled up the frontiers of North Carolina and eastern Tennessee.

Many years ago, while investigating for my pleasure a point of local history, I was struck with the frequent mention of the name of Sims in this section of the country, and, on inquiry, learned from the doctor that his family first settled on the frontier, and after the Revolution his grandparents, I believe, returned to the "settlements."

In Lancaster District, S. C., Dr. Sims was born, January 25, 1813. Of his boyhood I have heard him state that he was a good boy, but a dull one at school—scarcely a just criticism, I think. He may have been wanting in application, but, if the man was any indication of the boy, there could have been no time of his life when he would have been dull in any sense of the term. In 1832 he closed his academic studies, and received the degree of Bachelor of Arts from the College of South Carolina, at Columbia. He began the study of medicine in the office of Dr. B. C. Jones, a practitioner of Lancaster, and his first course of lectures was taken in the Medical College of Charleston, S. C. The following years he received his degree from the Jefferson Medical College, Philadelphia.

He returned to the place of his birth to commence the practice of his profession, but, not receiving a sufficient encouragement from those who had known him from childhood, he removed to Mount Meiggs, a settlement a few miles from Montgomery, in the State of Alabama. In 1836 he married Miss Eliza T. Jones, the daughter of the old preceptor, and remained a year longer at Mount Meiggs; then he practised about three years in Macon County, and finally settled at Montgomery about 1840.

He seemed to have made but little progress during the first year; but shortly after this time he became interested in the operation for strabismus, which had been recently devised by Dieffenbach, and, having been able to put it successfully in practice, together with a remarkable cure he effected in a case of club-foot, he gained a surgical practice which in a few years became one of the largest in the State. His first contribution to medical literature was a paper on "Trismus Nascentium," which was published in the *American Journal of the Medical Sciences* in 1846.

In July, 1845, Dr. Sims was called to a patient who had been thrown from a carriage and was suffering from a retroversion in consequence of the accident. During his effort to restore the uterus he placed her in what is now termed the "knee-and-chest position;" but, finding that he could not fully reach the womb with the index-finger alone, he introduced the second one, with the immediate effect that he could then neither touch the cervix nor the walls of the vagina, and, to his surprise, she announced that she was entirely relieved. To this accident, and to the dilatation of the vagina when placed in a certain position after retracting the perinæum with the fingers, we are indebted for the speculum bearing his name, and for the first operation by him in a case of vesico-vaginal fistula.



In the anniversary discourse delivered by Dr. Sims before this Body on the 18th of November, 1857, the subject being "Silver Sutures in Surgery," he had given a most graphic description of the difficulties overcome, and of the many disappointments he experienced during some four or five years before he cured his first case. This success was gained June 21, 1849, by the use of silver wire, after thirty failures, in this individual alone, to close the opening by means of silk.

Shortly after this triumph, and with a most prosperous future before him, his health failed, and he became a sufferer from chronic diarrhoea. It was a type of the disease which seemed particularly fatal at that time, and equally so if contracted in the Southern States or in Mexico, from which country so many of the troops were returning home after the war to die from this malady. For two years or more Dr. Sims sought to regain his health by a change of climate, and with any improvement would return to his business, but finally was obliged to relinquish it entirely.

In October, 1851, while in Philadelphia, and when in the last extremity of the disease, as he supposed, he dictated a paper on "Vesico-Vaginal Fistula," which embodied his experience up to that date, and this was published in the *American Journal of the Medical Sciences* for January, 1852.

Dr. Sims had observed, during a number of visits to New York, that the only improvement in his health occurred while he remained in the city. Early in the autumn of 1853 he decided to settle permanently in New York, and in November of that year I first made his acquaintance. With a growing family, and now in straitened circumstances, it was necessary to select a house at a moderate rent, and on the outskirts of the city. This building, which had just been erected, was situated in Madison Avenue, between Twenty-eighth and Twenty-ninth streets. To the best of my recollection it stood alone, with no first-class dwelling-house nearer than Twenty-third street, and in full view of the East River. I happened to be walking with a mutual friend, and had never heard of Dr. Sims before. His sign suggested the visit, and I had the choice of going in or of standing on the street. I was introduced, and then little thought how close our future relations were to be, or that this man, so emaciated and apparently at death's door, was about to enter upon a career which was to be of world-wide renown. I could then as little realize the future as I could have foreseen the growth of the city from its then limits to its present bounds.

In October, 1853, Dr. Sims received from Dr. Mott his first patient in New York—a small vesico-vaginal fistula, where the neck of the uterus was found in the bladder, a condition then regarded as unique. But this is now well known to be a common result from retroversion, when produced by inflammatory shortening of both broad ligaments, and where, the slough having taken place directly in front of the cervix, it easily passed into the bladder, and, with the cicatrization afterward, the opening became reduced in size. Dr. Sims successfully closed this fistula, but left the neck of the uterus in the bladder, and reported the case in the first volume of the *American Medical Monthly*, published in this city February 1854.

Soon after his arrival, he formed the acquaintance of Dr. Barker, Dr. Mott, Dr. Francis, Dr. Stevens, and others, and it was thought advisable that Dr. Sims should deliver an address to the profession setting forth the necessity for a woman's hospital, where vesico-vaginal fistula and a few of the injuries of childbirth might be treated. Little thought was given at that time to the need for any special place or treatment for the diseases of women. I well recollect a statement made by Dr. David M. Rees, now many years dead, but at that time a prominent general practitioner and a fair surgeon, that it was easy to apply the nitrate of silver through a cylindrical speculum to any

case of ulceration; an infusion of red-oak bark could be given for a leucorrhœa, and, if a prolapse existed, any one could put in a Meigs' ring or Physick's spherical pessary. He laughed at the idea of the necessity for a woman's hospital, and thought it impossible to find enough women sick enough to fill it. What a contrast between such a statement and our knowledge of to-day! This gentleman felt satisfied that he had mastered the whole subject in treating these three conditions, which, as symptoms of different pathological changes, would not to-day convey alone to any one a knowledge of the true lesion. This appeal was made by Dr. Sims at the Stuyvesant Institute, in Broadway opposite Bond street. It was judiciously arranged in regard to the speakers that it should prove a success, and the indorsement there given him by the profession was the beginning. I attended this meeting, which was held May 18, 1854, and from that time to the present I have been familiar with every circumstance connected with the development of the Woman's Hospital. In fact, if the history of this institution is ever to be written, it must be done from the information which I alone can furnish, for no one is now living who could do so much.

As Dr. Sims' career was so closely identified with the early history of the Woman's Hospital, it is necessary that I should make some reference to those who aided him in the good work. All credit must be given Dr. Sims for the conception of the Woman's Hospital, as well as for the power of impressing others with the necessity of its existence, and his name must be for ever identified with the institution as the originator. But he had none of the qualifications of an organizer, and his conception would not have even reached a realization without the aid of others. Every one, I believe, connected with the movement has received more or less credit from some source, with a single exception. I entered upon this subject with the object of recording what I know to be true, and had written out my recollections without the knowledge of the gentleman to a point where it was necessary then to consult him in regard to certain data which he could alone furnish. I refer to our President, and believe that to Dr. Fordyce Barker, more than to any other individual, we are indebted for the early organization of the Woman's Hospital. Dr. Barker was about the first acquaintance made by Dr. Sims in the medical profession after settling in this city, and it was through him he became acquainted with Dr. Mott, Dr. Francis, Dr. Stevens, and others. Dr. Barker took an active part in the meeting, and just after, in the June number of the *American Medical Monthly*, wrote an editorial article on Dr. Sims' claims, entitled "Young America vs. British Surgery." The points are well taken against a surgeon of St. Mary's Hospital, London, who had reported two cases of vesico-vaginal fistula, operated on by him, in which he used Sims' position, speculum, silver sutures, and self-retaining catheter without the slightest credit being given to any one but himself. The editor's advice—"Fie, Mr. Bull, set a better example before your young men; if you get an idea from young America, have the manliness to say so"—was excellent, but it was not followed altogether, since we see sometimes, even at the present day, the force of a bad example.

At the first meeting held to form an organization, Dr. Barker suggested, with a single exception, the names of all the ladies who constituted the first board of managers of the Woman's Hospital Association. He was at the time the family physician to all, with the single exception, and it was through his personal influence that these ladies were induced to assume the responsibility. Mrs. Fordyce Barker was the first secretary of this board, and discharged the duties for two years after its organization in a position which, even under more favorable circumstances, would have been a thankless one. Soon after the hospital had gone into operation, Dr. Barker was able to render further service while twice president of the State Medical Society, at Albany, and to prepare the way

for obtaining from the Legislature the charter of the institution now known as the Woman's Hospital of the State of New York.

Dr. Francis, who knew every one, was a host in himself, and it was his special province to prepare, from time to time, the necessary appeals to the public and to the Legislature for obtaining the charter. Mr. Beekman, Mr. Benedict, and others, who formed the board of governors of the proposed State Hospital, and who were nearly all governors at the same time of the New York Hospital, obtained from the city a grant of the land for the site of the present institution, then a part of an old Potter's Field from which over thirty thousand bodies were removed. Through the efforts chiefly of Mrs. T. C. Doremus, a house was obtained in Madison Avenue, and her husband, I believe, became security for the rent. How much was due to the individual efforts of this noble woman will never be known; she kept her own council, but served the institution, even to the day of her death, with a most remarkable singleness of purpose. In brief, I have given an account of the chief movers in organizing this undertaking, a work which was physically impossible for a single individual to have performed. Dr. Sims, however, did accomplish even a greater work in his own legitimate sphere, and this I will endeavor to trace.

The Woman's Hospital Association opened its doors May 4, 1855, and Mary Smith, the first patient received, suffered from a vesico-vaginal fistula, and had arrived from Ireland but a short time before.\* She proved to be one of the worst cases ever admitted to the institution. To keep the fundus of the bladder from prolapsing through the vagina, some almshouse physician of her district had, before she left, introduced into the cavity a wooden float from a seine, in size not less than a closed fist, and this had become thoroughly coated with a phosphatic deposit. This miserable object was operated on over thirty times, almost always on the knees and chest, each operation lasting from two to three hours, without ever taking an anæsthetic, and she suffered during a period of nearly five years before even partial retention was gained. For a long time she was the "show-case" for demonstrating the mode of operating. After the opening had been closed, so much traction was then exerted on the urethra that more or less urine escaped while in the upright position, and in time, from this source of irritation, a stone was at length formed in the bladder. Against my advice, some years ago, the urethra was dilated for the removal of the stone, and the neck of the bladder was lacerated, with incontinence afterward, so that the first patient admitted to the hospital is still living in suffering, in poverty, and incurable.

The consulting board consisted at first of Dr. Francis, Dr. Mott, and Dr. Stevens; Dr. Green and Dr. Delafield were subsequently added. These gentlemen were all eminent in their different branches of the profession, but were necessarily conservative in so new a field. Dr. Sims early evinced a boldness and desire to enter upon an investigation as to how far abdominal surgery could be made safe through the use of silver wire, and the difficulties would have been soon overcome if he could have had a portion of the responsibility shared by his consulting board. I was present, as a listener, at one of the early consultations, when Dr. Sims proposed to open the abdomen for the removal of a long pedunculated fibroid—an operation which few would hesitate in doing to-day. Dr. Francis and Dr. Mott were at first disposed to yield to Dr. Sims, until Dr. Stevens entered a protest. He had no opinion to express, he said, in regard to Dr. Sims' views; they might be all right, but he felt, if Dr. Sims should succeed by chance, that every young surgeon in the land would be ripping open the bellies of the young women to ascertain if they had such growths to be removed,

\* I will mention the fact in passing that, up to ten years ago, exactly fifty-eight per cent. of all the patients with vesico-vaginal fistula which had been treated were admitted, like this woman, directly from the different almshouses of Great Britain and from the Continent.

and he would oppose such an operation simply on the ground of humanity. Dr. Sims was not able to carry out his wishes in regard to several cases of ovarian tumor, and it was not until about 1860 that he felt his position sufficiently established to perform, on his own responsibility, his first ovariectomy.

Dr. Sims visited Europe early in July, 1861; he remained absent until the middle of January, 1862, and, on August 31, 1862, he left New York with his family to reside abroad. During his service of six years and nine months in charge of the Woman's Hospital Association, his only contribution to medical literature was, I believe, the address "On the Use of Silver Sutures," and he seemed to have taken no active part in the proceedings of the medical societies. He was, however, most actively employed, and, with a gradual improvement in his health, he developed a remarkable tolerance, as it were, for hard work. He was perfecting and devising new instruments, studying modes of exploration, and planning different surgical procedures, all in a field too new to find any precedent to aid him in the experience of others. In the midst of this busy life the civil war came on and cut short this continued strain to both mind and body. It proved, however, a fortunate circumstance for him and for his subsequent reputation. His residence in Europe gave him the leisure, and it became even a necessity, to perfect and utilize much which would otherwise have been lost.

Dr. Sims was by nature a surgeon, and one of the most dextrous operators I ever witnessed. He was bold and self-reliant, never at a loss, and his ingenuity was unequalled. He was in no sense a plodder, for his mind and body were always too restless and active. He was so fertile in resource when I first knew him that he perfected scarcely a tithe of the brilliant conceptions passing constantly through his mind, and it was impossible to see him perform the most simple operation without learning something new. It may be held that, for want of further hospital advantages for study, Dr. Sims' creative power culminated when he left the Woman's Hospital. As his surgical reputation will be hereafter always intimately associated with what he had perfected before that time, I will briefly give a synopsis of his work:

In perfecting the preparatory treatment, in devising the needed instruments, and by overcoming the difficulties in operating for vesico-vaginal fistula, Dr. Sims exhibited a degree of pertinacity which in after-life he was unable to devote to the development of any other special object. Notwithstanding a similar speculum has been taken from the ruins of Pompeii, and a like instrument, as a retractor, had been used by Metzler, in Germany, before the present instrument had been devised by Dr. Sims, the credit in the future must belong to him alone. The metallic suture had been used by Dr. Le Vert, of Mobile, Alabama, before 1828, and by Mr. Gosset, of London, in 1834; the clamp suture had been already employed, with the "knee-and-chest position," and with other details now in use; while vesico-vaginal fistulæ had been successfully closed in different parts of the world before Dr. Sims began to study his profession. "Yet with all," as I have elsewhere stated, "were we assured of the fact that Dr. Sims was as familiar as we are at the present time with what had been accomplished before his day, it should not lessen the credit due him. What had been done fell on barren soil, bore no fruit, was not appreciated, and was destined to be forgotten. From Dr. Sims' hand the operation was accepted by the profession; it was immediately put into successful practice, and to the present day it has not been materially modified for the better in either its principles or its mode of execution."

I hold in my hand a speculum which belonged to Dr. Sims, and is, I believe, the first one perfected from the hands of the instrument-maker. From the beginning of time to the present I believe that the human race has not been benefited to the same extent, and within a like period, by the introduction of any other surgical instrument. Those who do not fully appreciate the value of the speculum itself

have been benefited indirectly to an extent they little realize, for the instrument, in the hands of others, has probably advanced the knowledge of the diseases of woman to a point which could not have been reached for a hundred years or more without it. Those who come upon the field to-day cannot realize what has been accomplished, or the fact that the study of gynæcology now covers a more extended field than the whole knowledge of medicine did forty years ago. The advance made in this branch of surgery has, through this instrument, become especially identified with this country, where it has been chiefly employed.

To Dr. Sims we are indebted for the technique of the examination. He first suggested the advantage of employing the left hand and the use of conjoined manipulation. The advantages of "Sims' position" on the left side, I believe, cannot be questioned. In addition to the speculum, we are indebted to him for the depressor, the flexible copper sound, the tenaculum now in use, and the elevator. He first introduced the use of glycerin and taught its advantages. He perfected the making of sponge-tents, and first understood how to apply a tampon, an operation which can never be performed properly without the use of his speculum. The stick, with the screw at the end for removing the cotton, is his, and he introduced the probang spongehoders now in use. He first had the block-tin pessary made, and from his hands I have seen formed, over twenty-five years ago, every shape and modification which has since been devised. Dr. Sims was the first to abandon that barbarous appliance, the quill suture, and to simplify the operation for closure of a lacerated perinæum by the use of the interrupted silver suture. He gave us the operation on the anterior wall of the vagina for the cure of procidentia and prolapse. And, notwithstanding it fails when used alone for keeping up the uterus, it is perfect if employed with the object of holding the uterus at a distal point from the pubes, while the needed support is obtained by the proper operation on the posterior wall. I could indefinitely extend the record of operations devised, but not carried out, and of instruments never perfected. There were certain operations practised by him which will go into disuse, and some of his teachings will not stand the test of time. But this is not to his discredit, for few men will ever have more to live after them. Crowded into a few years, as were all of Dr. Sims's opportunities for clinical study in hospital practice, it is most remarkable that from the brain and hands of one individual so much should have emanated and so perfected that the human race will be benefited long after the source has been forgotten.

I cannot attempt to trace his career abroad, or give more than a general outline of this period of his life. He visited the chief cities of Europe, but resided for the greater portion of the time in Paris and London. He received marked attention everywhere, and at once entered upon a large and extended practice. In 1865, while residing in London, he wrote his "Clinical Notes on Uterine Surgery," and states in his preface: "It is simply a voice from the Woman's Hospital, which, in all probability, would never have been heard if I had remained at home." This book was translated into the French and German languages, and issued at the same time with the English edition, which was afterward reprinted in this country. The work attracted a great deal of interest, at the time of its issue, as a very remarkable one. I believe few medical works of its size were ever issued containing so much original and, I may say, suggestive matter. It was so far imperfect, or rather fragmentary, in character as to treat of a very limited range of diseases. But its publication was the turning point of modern gynæcology, or, more strictly speaking, American gynæcology, of which he may be justly termed the father. For the critic, however, this work had many weak points, as it was not a systematic production, and was never intended to be one. He had also advanced, with his enthusiastic zeal, certain views which were theoretical and would not stand the test of clinical experience. Withal, in the history of some cases there was a want of accuracy, as he had not access to

the hospital records, and had to trust to his memory. It is now a source of no little regret to those who fully appreciated the true value of the book that Dr. Sims did not revise it and produce a systematic work embodying his matured experience, of which so much has now been lost.

Several years after the departure of Dr. Sims for Europe a sufficient sum of money, by subscription, was collected through the personal efforts of Mr. A. R. Wetmore, the late Vice-President of the Board of Governors, and the cornerstone of what is termed, in recognition of this service, the Wetmore Pavilion of the Woman's Hospital was laid May 23, 1866. This building was completed on the 12th of October, 1867, and was then occupied by patients for the first time. The Woman's Hospital Association, which had consisted of a Board of Lady Managers, now ceased to exist as a distinct corporation, and became blended with the one in charge of the Woman's Hospital of the State of New York. After the hospital had been in full operation for a year or more, Dr. Sims returned to New York for a few months, having been absent some six years. In 1868 he was appointed one of the governors of the Woman's Hospital, and had conferred on him the honorary title of Senior Consulting Surgeon. He contributed, in 1869, to the eighth volume of the *New York Medical Journal*, a paper "On the Microscope as an Aid in the Diagnosis and Treatment of Sterility," and it had been read by him before the Medical Society of the County of New York, December 7, 1868.

His family remained abroad and he was only a portion of each year in this country until after the Franco-Prussian War. While in Paris, the "Anglo-American Ambulance Corps" was organized, August 27, 1870, by eight American and the same number of English surgeons, with Dr. Sims as surgeon-in-chief. He was the eldest surgeon who left Paris for this duty, and, arriving just at the commencement of the battle of Sedan, he was placed in charge of a military hospital containing four hundred beds, and served as chief for a month or more. Shortly after rendering this service he returned with his family to New York.

Dr. Sims was appointed, January 9, 1872, a member of the Board of Surgeons to the Woman's Hospital, but the new organization was not fully completed, and he did not enter regularly upon his duties until the following first of May. On the first of December, 1874, Dr. Sims resigned, thus terminating his brief service as surgeon to the Woman's Hospital, and he had no further connection with the institution until shortly before his death, when he became one of the Consulting Board.

In the *New York Medical Journal*, December, 1872, and April, 1873, he contributed an article on ovariectomy, in which he advocated free drainage, through Douglas's cul-de-sac, of the peritoneal cavity. Before the New York State Medical Society, Albany, February 6, 1874, he read a paper on "Intra-Uterine Fibroids," and this was published also in the *New York Medical Journal*, April, 1874. Soon after, in the "History of the Discovery of Anæsthesia," he supported the claims of Dr. C. W. Long, of Athens, Ga., to the credit of having performed the first surgical operation with the patient under the effects of an anæsthetic. A few other articles in the various journals, of minor importance, and his addresses as presiding officer of several societies, would embrace all his contributions to medical science.—[See this JOURNAL, Feb., 1884, p. 131.]

Dr. Sims was elected President of the American Medical Association, and presided at the meeting held in Philadelphia, 1876. He was President of the American Gynæcological Society at its meeting in Cincinnati, Ohio, 1880, and was one of the founders of the society. In recognition of the service rendered by Dr. Sims to medical science he was the recipient of many honors from different governments of Europe, and probably few men in the profession ever received an equal number of honorary distinctions from various societies in different parts of the world. One of the last honors conferred was that of

Doctor of Laws from the Jefferson University, Canonsburg, Penn., with which his Alma Mater, the Jefferson Medical College, of Philadelphia, is connected.

Dr. Sims came of a long-lived family, and was remarkable for his temperate and simple mode of life. He had none of the "small vices," and every habit of life was made conducive to maintaining his health. He preserved to a late period a youthful figure, with a degree of elasticity and activity of body seldom enjoyed even in middle life. He thus had the promise of a long life, and he always said, as he expressed it, that he was "good for ninety." About two years ago, after a long and fatiguing operation, he was seized with an attack of pneumonia, and his life, day by day hanging in the balance, was only saved by the unremitting care of his medical attendants. He never fully recovered from this attack, and it necessitated the spending of the following winter in Florida, and the last in the south of Europe. During the warm weather he improved, and, on his return to New York in August last, it was thought that he had regained his former vigor and strength. To the day of his death he was actively engaged in the duties of his profession, and it is stated that he had visited a patient with his son just before retiring. During the night he was restless, and wrote for a time in bed, as was his custom. Suddenly his heart came to a standstill, and he died, without a struggle, November 13, 1883.

Mrs. Sims has survived her husband. A sketch of him would be incomplete without some notice of her, who continued as the sweetheart of his youth and helpmate through a long life. I have heard him state that he could have accomplished nothing without the aid and advice of his wife. She certainly devoted her life to him, and I never saw a person more dependent on another than he was on her. When I first knew them, and he was in bad health, she always prepared with her own hands every particle of food he needed. She watched over him with singleness of purpose only equaled in the care of a mother for her offspring. For his impulsive nature her placid disposition was as essential as the fly-wheel to an engine, and he has said that through his whole life he has never had to regret following her advice.

My relations with Dr. Sims in early professional life were as close as those of a son could be. Later on, from circumstances over which I had no control, we did not meet for years. During the summer of 1882, and in London, while I was closely watching the steps of an operation, some one came into the room breathing quickly, as if he had been ascending the stairs. For a second of time I was annoyed as this gentleman sidled up so close to me, but his hand passed into mine as he whispered, with a familiar voice, "How are you, old Emmet?" and I shook Dr. Sims by the hand for the last time.—*N. Y. Med. Jour.*

#### PHILADELPHIA COUNTY MEDICAL SOCIETY.

At a meeting held December 12, 1883, Dr. W. M. Welch, President, in the chair, Dr. Arthur V. Meigs read a paper entitled "Proof that Human Milk contains only about one per cent. of Casein: with Remarks upon Infant Feeding."

In this communication the lecturer demonstrated, by the process of exclusion, from a series of analyses, that human milk does not contain more than about one per cent. of casein, as an average. He made the following practical remarks, in conclusion, upon "infant feeding," and recommended the following method of preparing the food:

"The easiest way to prepare and use the food is as follows: There must be obtained from a reliable druggist packages of pure milk-sugar containing seventeen and three-quarter drachms each. The contents of one package are to be dissolved in a pint of hot water, and it is best to have a bottle which will contain just one pint, as there is then no need for further measuring. The contents of one of the sugar packages are put into the bottle, and when filled with hot

water the sugar soon dissolves and it is ready for use. The dry sugar keeps indefinitely, but after it is once dissolved it sours if kept more than a day or two in warm weather; it is understood, therefore, that the sugar-water must be kept in a cool place, and if it should at any time become sour, as is easily discovered if it is smelled and tasted, it should be thrown out, and, after the bottle has been carefully washed with boiling water, the contents of a fresh package dissolved. A milkman must be found who will serve every day fresh, good milk and cream. By good milk is meant ordinary milk, such as is easily procured in most cities, and not rich Jersey milk; and in the same way the cream should be such as is ordinarily used in tea and coffee, and not the very rich cream of fancy cattle. The reason that ordinary milk and cream are recommended is because they are within the reach of almost every one, and not because they are any better than the rich milk of high-bred stock. If Jersey milk were to be used, it would be necessary to analyze specimens and then make the necessary calculations as to how to dilute it to obtain the desired relative proportions of the proximate principles. When the child is to be fed, the nurse should mix together two tablespoonfuls of cream, one of milk, two of lime-water, and three of the sugar-water, and then as soon as the mixture has been warmed it may be poured into the bottle and the food is ready for use. If the infant be healthy, this quantity will not satisfy it after the first few weeks, and then double the quantity must be prepared for each feeding. Twice as many tablespoonfuls of each of the ingredients must be mixed together, making sixteen tablespoonfuls (about half a pint) in all.

“This food should not be given any stronger until the child is eight or nine months old, at least; but if the infant be a healthy one it may take as much of it as it wants, but always of the same strength. A robust infant will often take three pints, or even more, in each twenty-four hours. It is an easy matter for any one to learn how to make the lime water; and it is advisable to have it made at home, for a great deal is used, and if it is made at home much trouble and expense are saved.

“With regard to the propriety of increasing, from week to week, the strength of any artificial food given to infants there has been some question. Most authorities have advised that the foods should be increased in concentration until finally the infant is given pure cow's milk. The propriety of this procedure, during the earlier months of life at any rate, is very doubtful. Although there is some reason to believe that the quantity of solid ingredients in human milk increases from month to month as lactation goes on, such an opinion should be accepted only with great caution, for it seems likely that if there is any increase in the concentration of the milk after the colostrum has once disappeared and the nursing process has settled down into its even course, the increase is so slight that it may be disregarded. Analyses show that the milk of a woman whose child is two months old does not differ materially from that of one whose child is twelve or fifteen months old. If, then, nature has made no difference which our means of analysis will detect between the milk of a woman who has been nursing two months and one who has nursed twelve, an artificial food which has been found to suit an infant of two months should be made more concentrated only very gradually, and with careful observation of the effect upon the health of the infant. It is best, therefore, if the infant thrives and grows as it should, not to make any change in the food until after six to nine months of age have been attained.

“With regard to the use of condensed milk as a food for young infants, I can only repeat what I said in my former paper, that I cannot believe that any article which has been canned, and kept for weeks or months, or perhaps still longer, can be as good as the same thing when fresh. My table of analyses shows the composition of the dilution of condensed milk commonly used in this



city, and it shows that the proportion of fat is much too small, and for this reason, partly at least, it fails as a food. Its success is due to the fact that it contains nearly the same proportion of casein and sugar as exists in human milk. Dr. Ellwood Wilson is in the habit of directing that after the first few weeks a small proportion of fresh cream be added to the condensed milk, and this would render it still more nearly what is needed. This practice, which cannot be too much commended, if condensed milk be used, is not, however, at all a common one. Withal, I am unable to believe that condensed can be as good as fresh milk if properly used."

At a meeting held December 19, 1883, Dr. Roberts Bartholow read a paper on "Nitro-Glycerin and the Chloride of Gold and Sodium in the Treatment of Albuminuria." The former remedy (in one per cent. solution) is recommended, in drop doses, in the more acute cases, influencing as it does more directly the blood supply; the other, a double salt, is indicated in the subacute and chronic cases, especially the latter, in doses of one-tenth of a grain at first, reduced at the end of a week to one-fifteenth of a grain, then continued for a month in smaller doses. If good effects are not observed in two weeks, they may be discontinued. He had observed very good results from its use in this class of cases.

Dr. Charles H. Burnett read a paper on "The Supposed Connection between Ear Disease and Kidney Disease," in which, after reviewing the testimony of different observers, he arrived at these conclusions:

1. Evidences in favor of either frequent or well-marked aural lesions dependent upon renal diseases are extremely meagre.

2. Those lesions in the ear which have been found in connection with Bright's disease and diabetes mellitus, and which may have been dependent upon the dyscrasia induced by these renal disorders, are in the form of sero-sanguinolent and hæmorrhagic effusions into the drum-cavity. But the latter must not be mistaken for the sthenic form of otitis media hæmorrhagica.

3. From the serous nature of the membranous structures of the labyrinth organic changes might reasonably be expected in Bright's disease; but positive proof of the occurrence of such lesions based on ante and post-mortem history is wanting.

Dr. James Tyson read a "Note on some recently-suggested Delicate Tests for Albumen." In this communication he considered—1. A saturated solution of picric acid, suggested by Dr. George Johnson. 2. Saturated solution of ferrocyanide of potassium after free acidulation by citric acid, suggested by Dr. Pavy. 3. Standard solution of potassio-mercuric iodide, suggested by Tanret,\* after acidifying the urine by citric acid. 4. Equal parts of a saturated solution of sodium tungstate (1 in 4), saturated solution of citric acid (1 in 6), and of water. 5. Acidified solution of potassio-mercuric iodo-cyanide. The last two were suggested by Dr. George Oliver in the *Lancet*, February 3, 1883. To complete our list of available tests, he added—6. The ordinary heat and acid test. 7. The nitric acid test, by Heller's overlaying method; and 8. The acidulated brine, suggested by Dr. Roberts, of Manchester, England, and consisting of an ounce of hydrochloric acid added to a pint of water saturated with common salt and filtered.

The lecturer, after reporting the result of his experiments, concluded that the sodium tungstate solution and the ferrocyanide of potassium, but particularly the former, are more delicate, as tests for albumen in the urine, than heat, acid or brine. These tests, however, like picric acid, precipitate peptones as well as albumen, and this may be a possible source of error. The ferrocyanide does not precipitate peptones, but gives a deposit with amorphous urates. If

\* Mercuric chloride, 2.7 grains; potassium iodide, 6.4 grains; distilled water, 100 cc..

the quinine fallacy of the picric acid test be borne in mind, this solution, acidulated with citric acid, is an available test of great delicacy, cheap, and easily prepared; but the sodium tungstate was preferred, as being less liable to cause error. He would not, however, dispense entirely with the old heat and acid test.

Dr. William S. Little read a paper entitled "Eye Symptoms and Conditions in Bright's Disease." He stated that among nine hundred and eleven cases of Bright's disease reported by different observers changes in the retina had been recorded in one hundred and eighty-five, or about twenty per cent. Amaurosis had been known as a symptom of dropsy even before the renal disease was recognized by Bright, and long before the use of the ophthalmoscope. He continued as follows:

"Retinitis, generally symmetrical, if not always so, appears in all forms of kidney disease, while it is principally associated with the chronic disease of the cirrhotic kidney. Even though symmetrical, its presence is not always known to the patient. Especially is this so as long as the region of the macula lutea in the retina is not affected so as to produce a central scotoma. Lesions near the nerve and peripheral parts of the retina are not so productive of recognizable scotoma in the field of vision. These cases do not have the restricted visual field and rarely the loss of color sense that belong to optic nerve and brain troubles or contracted field of glaucoma. The symptoms may correspond to those of retinitis from any other cause—flashes of light, color sensations, dread of light, impaired vision to total blindness.

"The ophthalmoscopic examination may only reveal the lesion, the patient being ignorant of it and not observing the gradual change. The picture of this form of retinitis is a decided one, as a rule. When the changes are slight it is uniform, though at times a differential diagnosis is required from the conditions of the optic nerve and retina due to intracranial disease or to pernicious anæmia.

"While the lesions occur generally near the optic nerve and to the temporal side, the nerve itself is not implicated to the degree that might be expected from the picture it presents. The separate spots in the retina finally coalesce, approaching the disc and involving it; in other cases they surround the region of the fovea centralis and are much smaller. They may occur anywhere in the retina, varying in size; the shape is somewhat quadrilateral, but may vary as they progress; they present a white appearance. The tissue near the disc, and the disc itself, appear striated; spots of hæmorrhage are found from rupture of retinal or choroidal vessels; opacities in the vitreous are seen. The state of pigmentation is the latest. In chronic cases the color of the fundus is peculiarly yellow, and the character of the picture is at times very much like the neuro-retinitis of brain disease or pernicious anæmia.

"The changes result from the hyperæmia and infiltration of the tissue, fatty degeneration and atrophy producing changes in the blood-vessels with hæmorrhage; a fatty deposit occurs in the retinal tissue, the fibres of the retina become sclerosed, and pigmentation follows.

"The optic nerve is not seriously involved, though gray degeneration may exist and numerous amyloid bodies may be seen with the microscope. The retina does not always present all the stages described; the kidney disease being amenable to treatment, the retina may not undergo any further change; where it is chronic, a like progression ensues in the retina. Marked lesions at times disappear, leaving only a slight trace. The hæmorrhagic state is more severe, the sight not only being lost, but the patient's life also being endangered.

"During gestation the same picture exists; the optic nerve may be more seriously involved. A case recently seen, and having uræmic symptoms, being unconscious two weeks prior to the delivery of the child, it being born dead,

had complete atrophy of one optic nerve, with extensive retinal lesions; the other nerve partially affected, and slight retinal changes; patient almost entirely blind. In another case, with convulsions, only slight changes in each eye near the fovea. In succeeding pregnancies the conditions may arise again, producing more serious changes in the retina.

“The prognosis, so far as the vision is concerned, is serious when the region of the yellow spot is encroached upon; and yet fair vision may remain after subsidence of the disease.

“Can a prognosis as to the duration of the disease or as to its fatality be derived from the eye symptoms? Only in the chronic stages of the disease when retinal hæmorrhages are extensive and repeated, the heart being diseased. Traube considered the heart the immediate cause of these retinal hæmorrhages, but they exist in cases without heart trouble and in other diseases of the system, and in intraocular conditions. Brain symptoms soon follow in these severe types of retinitis, in chronic kidney disease a general hæmorrhagic condition being developed, or uræmia may ensue. In the acute forms of Bright’s disease no prognosis of any value can be formed from the eye symptoms, though severe.

“As to treatment of the eye in this disease, only what renders the disease of the kidney controllable is of advantage to the retina; leeching may be useful if the patient be not too anæmic. For the vitreous opacities, in cases where the disease is under control and the acute condition of the eye abated, electricity is of considerable value, much more so than any plan of medication.

“The microscope shows a sclerosis of the retinal fibres, the walls of the blood-vessels degenerated, fatty deposits along the fibres and in the layers of the retina, also in places a pigmentation. The choroidal vessels are implicated as well.

“Uræmic amaurosis is rare, Wagner finding one case in one hundred and fifty-three of Bright’s disease. Graefe found two cases in thirty-two cases of albuminuric retinitis. It presents no retinal change that is recognizable.

“As yet we cannot tell why the retinal changes occur with disease of the kidney. Does the structure of the retina and its proximity to a highly vascular tissue account for it?”

In the discussion on Dr. Little’s paper Dr. Albert G. Heyl said: “I desire to direct attention to the relation which exists between the intraocular phenomena observed in Bright’s disease and the anatomical arrangement of the intraocular arteries. The latter are divisible into certain areas—thus, we have one area composed of the arterial circle of Zinn which supplies the optic papilla, another formed by the arteria centralis retinæ which supplies the retina, another composed of short posterior ciliary arteries which supply the posterior half of the choroid, still another composed of the long ciliary arteries which supply the iris and the anterior half of the choroid; the short anterior ciliary arteries also take part in the formation of this area. Now, it is established that abnormal changes in connection with Bright’s disease may exist primarily in each of these areas, with perhaps one exception, to be mentioned directly. Thus, the papillary area may be affected, and a papillitis will be found on application, the choroid and retina and iris being unaffected. Again, the posterior choroid area may be affected, and there will be found the phenomenon of subretinal œdema, and also in the choroid the white accumulations so well known in connection with Bright’s disease. Both of these forms are considered to be rare; perhaps they would be observed oftener were we more alert. A case reported by me (*Amer. Jour. Med. Sci.*, October, 1874) of retinal separation occurring in one eye, while simultaneously the other was affected by temporary amblyopia, probably belonged among the affections of the posterior choroidal area. Further, the retinal area may be affected, and the peculiar retinal appearances so well known are found. So far as I am aware no separate affection of the irido-choroidal area has been

described; there seems to be no reason why it should not occur. Of course there are many cases in which the areal lesions exist together, but they are to be looked upon as the result of one common cause, not as the result of a morbid process starting in one area and gradually implicating the others.

“In referring to the snow-like patches of the fundus, commonly looked upon as the characteristic intraocular appearance of Bright’s disease, I think that, to a certain extent, they are to be looked upon as the remnants of intraocular hæmorrhage. While hæmorrhagic clots formed of normal blood are absorbed without any whitish residuum being left, the case is different where the blood, as it circulates in the vessels, is in a morbid state. Thus, in a case of pernicious anæmia I have observed a number of round red hæmorrhagic spots with white centres. On examination, ten days later, the red coloring matter of the hæmorrhages had largely disappeared, leaving as a residuum white masses. Some of these were speckled with red points arranged in spindle form like the hæmorrhages of the retinal nerve fibre layer. They were, however, simply the unabsorbed remnants of the round hæmorrhagic spots seen ten days before. So in morbus Brightii the blood is in such a morbid condition that hæmorrhagic clots rapidly lose their red coloring by absorption, leaving behind a white residuum, which may partially, at least, explain the white placques seen with the ophthalmoscope.—*Phil. Med. Times.*”

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## BIOGRAPHY.

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### DR. JAMES GATES PERCIVAL.

A WESTERN MAN’S TRIBUTE TO AN EASTERN-BORN GENIUS.

*The Hon. Beriah Brown in the Seattle (Washington Territory) Herald.*

Your request of me to tell you what I know of Dr. James G. Percival, the poet and scientist, can only be answered briefly and very imperfectly for any public use. My limited library furnishes me no text upon this subject in any American publication, and I find only the following brief notice in a British publication, edited by William Keddie, Secretary to the Philosophical Society of Glasgow. It is under the caption of “Percival, the American Poet,” and reads as follows:

“Dr. Percival is one of the most eccentric men in the world, and one of the most learned. He lived a long time in a garret—literally a garret, after the manner of the old poets—at New Haven, and had very few companions save his books, cabinet, and herbarium. He reads with fluency ten languages, and is so familiar with the Latin, Greek, French, Spanish, German, and Italian that he can take a work never before seen by him in any of those languages and read it in English with as much correctness and ease as he would one of his own poems. For several years he was engaged in making a geological survey of Connecticut, and his report was laid before the Legislature of that State, when a proposal to give the copyright to the author, after a certain number of copies should be printed for the use of the State, was discussed. On this occa-

sion one of the members said that, in his examination of our geology, Dr. Percival has been on one side at least of every square mile in the State, except where river or lake had interrupted his progress. He had walked over every hill, plain, and morass in Connecticut, with his basket on his arm and his bag on his back, stopping at the farm-houses at night and resuming his examination at early light. He was engaged in this work for five years, and his salary never exceeded \$300 per annum. The Legislature, of course, adopted the proposal of giving to him the copyright. He is one of the poorest, as well as one of the most meritorious, of our authors."

Dr. Percival was not "eccentric," according to the popular acceptance of the term. His life and character were in perfect accord with his nature. His temperament was nervo-bilious in excess, and he was abnormally sensitive, almost to the degree of monomania. He was utterly destitute of self-confidence or the power of self-assertion. Morbidly conscious of his share of our common infirmities, and painfully fearful of provoking comment or criticism from his fellows, he instinctively—not studiously—excluded himself almost entirely from social intercourse. His physical and mental nature seemed ill-adjusted to each other—mind and matter composed of discordant elements; the most erudite scholar of his age, endowed with the divine spirit of poesy in the highest degree, apparently walking the earth in the cast-off body of a starved mendicant or an executed felon, with the physical conditions pertaining thereunto. His manner was as abject as that of a beggar and as furtive as that of a hunted criminal.

Of the antecedents and early life of Dr. Percival, tradition represented him as a poor boy, seeking an education at Yale College. His extreme bashfulness and *gaucherie*, combined with his manifest poverty and starving habits, made him the butt and laughing-stock of all his gay and thoughtless fellow-students. This treatment, operating upon his morbid sensibility, well-nigh drove him to insanity, and undoubtedly confirmed him in that undemonstrative and unsocial manner which was the curse of his life. His supposed design was to prepare himself for literary pursuits solely, and to make authorship his vocation. If such was his purpose it was cruelly thwarted by his evil genius. His first few contributions to the press—now treasured as gems of American literature—were damned by derisive sneers at their unprepossessing author.

Shortly after the first publication of his poems, and the criticisms upon the same, he was found insensible in a stone quarry, where he had sought to rid himself of the brains which had proved his curse by butting his head against the rocky walls.

He published no more, but devoted himself entirely to scientific pursuits, for which he had a remarkable aptitude, until his physical necessities compelled him to become a hack writer for distinguished literary men of more practical ability. *He was the sole author, compiler, and*

editor of the first edition of Webster's Unabridged Dictionary, giving not only the definitions, but the root and history of over 16,000 words derived from other languages, including all the written languages of the world—30 in number—of every one of which he must have had some critical knowledge. Regarded in this light, it is the most wonderful literary labor ever performed by one man. No other lexicographer ever accomplished it. Dr. Johnson was the literary wonder of his age. Horace Walpole says of him: "His dictionary is a surprising work for one man, but sufficient examples in foreign countries show that the task is too much for one man, and that a society alone should undertake to publish a standard Dictionary." Webster's *first* Dictionary was only a compilation from standard authorities, with the addition of purely American idioms and etymology, exhibiting neither originality nor research, being adapted only to the use of schools—to the learners and not to the learned, and was rejected as a standard by the British institutions of learning on account of the slang phrases, with only a local signification, which it attempted to introduce into the common English language. In regard to derivative words, which comprise so large a share of our language, the Dictionary edited by Percival, and published in the name of Noah Webster, is now adopted as the highest standard authority by all of the universities of Great Britain and America. *The great fortune of Noah Webster in life, and his world-wide fame as the greatest lexicographer of any age, are based solely upon the unrequited labor of Dr. James G. Percival, who died in poverty in a miner's cabin in Western Wisconsin, "unwept, unhonored, and unsung."*

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## PHARMACY AND THERAPEUTICS.

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CHLORAL HYDRATE AS A VESICANT.—Dr. C. H. Hughes (*New York Medical Journal*, April 21, 1883) says that chloral hydrate is such a violent and excruciatingly painful vesicant as to render it unfit for use in ordinarily sensitive conditions. In 1877 his assistant physician at the Missouri State Lunatic Asylum, Dr. William Wood, employed chloral hydrate externally for the relief of intercostal neuralgia in his own person, and the effect of the application was to produce the most intense agony. He never wished to try the experiment again. Dr. Hughes relieved Dr. Wood of his chloral agony by repeated applications of wet towels, followed by lard spread on cotton batting. Dr. Wood's neuralgia was speedily relieved by the chloral, but the systemic shock of the application was too severe to justify the use of the remedy, and would have been greater but for the prompt employment of the wet towels. Circumstances may arise which would justify the use of this severe remedy where reaction to ordinary counter-irritation might be doubtful, but for ordinary vesicant indications and purpose the employment of chloral hydrate would be positively cruel.

SALICYLIC PASTE.—O. Lassar (*Monatschrift f. praktische Dermat.*) recommends r cases of eczema which show intolerance of ointments a paste of equal parts

of oxide of zinc and starch powder with vaselin. To this paste are added various medicaments; especially useful is salicylic acid. The preparation does not liquefy at the ordinary temperature of the body, but dries on the skin, to which it adheres so closely, wherever applied, as to render a retaining bandage unnecessary. On hairy portions of the body it is objectionable, because of its sticking the hairs together. The zinc-starch paste has no irritating properties whatever, and is well borne when simple vaselin is not. The greatest advantage is its porosity, by means of which any secretions arising from the surface to which it is applied are absorbed instead of collecting beneath, as with ordinary ointments. The addition to the paste of salicylic acid in the proportion of two per cent. adds very decidedly to its curative effect, the formula is ℞. Acid. salicyl 2.0 (grs. x), Vaselin 50.0 (ʒ iv), Zinci oxid., Amyli āā 25 (ʒ ij).

MARSHMALLOW IN PALMAR PSORIASIS.—Dr. F. C. Berry, has called attention (*Practitioner*) to the use of marshmallow in palmar psoriasis. In one case in which Fowler's solution, chrysophanic acid, huile de cade, and other remedies had proved unsuccessful, the disease is said to have been cured in a month by the application of marshmallow ointment. The ointment was made by cutting the fresh leaves into small pieces, stirring them together with lard, boiling the mixture for half an hour, and then straining it.

SANTONIN IN GONORRHOEA.—Dr. U. Anderson states (*Lancet*, November 10, 1883,) that after treating a patient for lumbrici the patient remarked that the medicine had not merely killed the worms, but cured a gleet of long standing. Dr. Anderson recommends for the latter disease, as a dose, 5 grains of santonin rubbed down with 5 grains of sugar of milk and taken twice a day, fasting, in milk.

PURGATIVE LINIMENT.—The following has been found useful (*Zeitschrift der West. Allg. Apoth. Verein*) in cases where it is impossible to administer purgative *per orem*: ℞. Tinct. colocynth., ʒ ix.; Ol. ricini., ʒ xx. M. Every morning and evening one teaspoonful of this mixture is rubbed in over the abdomen. The tincture is prepared by the maceration of one part by weight of fresh colocynth seeds in ten parts of concentrated alcohol.

TARTARO-ALOETATE OF IRON.—*L'Imparziale* says that this is made as follows: Take of powdered socatrine aloes 2 parts, tartaric acid 1 part, freshly prepared iron hydrate 1 part, fine iron filings  $\frac{1}{2}$  part, water q. s. To the mixed ingredients, sufficient water is added to form a thin paste, the whole warmed to 50 deg. or 60 deg. C. for 15 minutes, and set aside for five or six days. The mass is then well stirred, and a small amount of water added from time to time, the whole filtered and the clear yellowish, brown liquid evaporated at a low temperature and the residue kept in a well-stoppered bottle.

COD-LIVER OIL AND IRON JELLY (*Druggist*).—Cod-liver oil, 8 ounces; gum Arabic, 3 ounces; simple syrup, 1 ounce; tincture of iron, 1 ounce; oil of bitter almonds, 4 drops; water, sufficient. Place the gum and oil in a dry mortar and mix, and then add at once 5 ounces of water. Triturate briskly until the mixture thickens and acquires a milky whiteness. Scrape the portions adhering to the mortar and pestle, so as to render the whole homogeneous and free from non-emulsified oil, then add the oil of bitter almonds, syrup and enough more water to make 15 ounces. Finally, add the tincture of iron, poured in a small stream; mix well, and transfer to a wide-mouthed bottle. Should strychnine be required as an ingredient, it can be dissolved in a little water with the aid of citric acid, and added at any period of the process.

**GERMAN ANTI-SPASMODIC MIXTURE.**—The following (*Medical and Surgical Reporter*) is from the German pharmacopœia, and is much used as an anti-spasmodic in hysteria: From 15 minims to a half a drachm or more may be administered by potion or by enema two or three times daily. The dose may be increased when the convulsive accidents are of great intensity:  $\mathcal{R}$ . Tinct. assa-fœtidæ,  $\bar{z}$  ss. ; tinct. castorei,  $\bar{z}$  ss. ; tr. opii,  $\bar{z}$  j.  $\mathcal{M}$ .

**SODIUM SALICYLATE VEHICLE.**—S. Solis Cohen (*Medical and Surgical Reporter*, Dec. 1, 1883) suggests the use of equal parts of simple syrup and water, or of simple syrup and liquor ammoniæ citratis (B. P.) as vehicle for sodium salicylate, flavoring with oil of wintergreen, one minim to the ounce or two. He has used this sufficiently often to speak in its favor.

**ANISEED CORDIAL.**—The *American Druggist* highly recommends any of the cordials made after the following formulæ: 1. Oil of anise, Russian, 300 grains; deodorized alcohol, 14 quarts; syrup 15 quarts; distilled water,  $7\frac{1}{2}$  quarts. 2. Oil of anise, Russian, 150 grains; oil of lemon, 60 grains; oil of coriander, 30 grains; deodorized alcohol, 13 quarts; syrup, 15 quarts; distilled water  $7\frac{1}{2}$  quarts. 3. (Double anise) Oil of anise, Russian,  $1\frac{1}{2}$  fluid ounces; deodorized alcohol, 11 gallons; syrup,  $1\frac{1}{4}$  gallons; water, 14 gallons.

**CINCHONIDIN BENZOATE.**—Byasson (*Pharmaceutische Post*) gives the following process for the manufacture of this salt: Dissolve 60 parts benzoic acid in 200 parts ninety-per-cent. alcohol, and pour the solution into a porcelain vessel containing 3,000 parts boiling distilled water. On the other hand, dissolve 200 parts of sulphate of cinchonidin in 2,000 parts of water, by means of dilute sulphuric acid, and precipitate with ammonia. Wash with a small quantity of cold water. Add the still moist precipitate to the hot solution of benzoic acid, and filter while hot. If the solution be not faintly alkaline, make it so by cautious addition of ammonia. On cooling, the cinchonidin benzoate separates in small, thin, prismatic needles, much resembling the neutral cinchonidin sulphate. By evaporation of the mother-liquor a new crop of crystals is obtained, which should be added to the first and then washed with cold water. The yield is about 200 parts.

**GESUNDHEITS-SALZ.**—Kletzinsky (*Druggist*, December, 1883) taught that the habitual use, in very small quantities, of the salts entering into his *Pulvis Halodieteticus* is essential to preserve the normal functions of all the organs. The formula of this was sodium bi-carbonate, 30 parts; potassium chlorate, 15 parts; calcium phosphate, 10 parts; iron pyrophosphate, 7.5 parts; magnesia, calcined, 7.5 parts; calcium fluoride, pure, 2 parts; salicylic acid, pure, 2 parts. Mix.

**ADMINISTERING SEIDLITZ POWDERS.**—The ordinary method (*Druggist*, December, 1883) is radically wrong. When pouring together the two separate solutions of the blue and white powders, the reaction is so violent that one-half of the mixture has to be mopped up from the floor, while the remainder does its level best to choke the confiding patient, and it is quite a treat to see him battle heroically with the tumultuous waters in the tumbler. The only rational manner is to dissolve the soda powder in half to two-thirds of a tumbler full of water, and then to stir in the acid powder gradually, allowing the reaction to proceed slowly, and after adding the last consignment, let the customer drink in leisure. Printed directions on Seidlitz powder boxes should read: "Dissolve a large powder in half a tumbler full of water, then stir in a small powder. Drink while effervescing." People will much better remember "large and small" than "blue and white."



NEW METHOD OF EXHAUSTING DRUGS.—A. B. Taylor (*American Journal of Pharmacy*, November 1883) gives a process for exhausting drugs, which consists in using a portion of the finished preparation (from a previous operation) to macerate and partially exhaust the drug before using the next portion of menstruum, and, as there is no limit to the quantity of finished preparation which can be used when necessary, it is possible thoroughly to exhaust the drug completely. For example, if it be required to make two pints of tincture of arnica flowers, let there be taken: Arnica flowers (in No. 20 powder) six ounces avoirdupois; tincture of arnica flowers, two pints; diluted alcohol a sufficient quantity to make four pints. Moisten the powder with a pint of the arnica flower tincture; then pack firmly into a cylindrical percolator, and gradually pour upon it, first the remainder of the arnica flower tincture and then diluted alcohol till four pints of tincture are obtained.

WILD CHERRY SYRUP.—R. Rother (*American Journal of Pharmacy*, November, 1883) states that alcohol is preferable to glycerin in the preparation of wild cherry syrup, because it prevents fermentation and does not, like the glycerin, check the production of cyanhydric acid. He proposes to reject the glycerin. The formula then becomes: Wild cherry in No. 20 powder, 12 parts; sugar, granulated, 68 parts; alcohol, sufficient, or 4 parts; water, sufficient to make 100 parts. Mix alcohol and water in proportion of one part of the first to seven of the last, and moisten the wild cherry with six parts of the mixture. Pack the moistened bark firmly into a glass percolator and pour on of the same mixture till the liquid has slowly penetrated to the bottom of the column. Check the percolation for twenty-four hours by closing the exit. On resuming the operation let the current slowly flow, so that in twelve hours forty parts percolate are obtained. Pour three-fourths to four-fifths of this upon the sugar contained in a bottle and agitate occasionally until no more sugar is dissolved. Decant the clear syrup from the residuary sugar, and pour on this the remainder of the percolate, agitating as before, till all the sugar is dissolved. Finally mix the two syrupy solutions and strain through a No. 80 sieve.

SODIUM HIPPURATE has recently come into request owing to remarks by Dr. Garrod (*Midland Medical Monthly*) in the Lumleian lectures this year. He pointed out that when an excess of sodium hippurate remains in contact with an alkaline one of uric acid for a certain time, the uric acid entirely disappears. Excess of uric acid in the system was probably due to the absence of a sufficient quantity of hippuric acid to decompose it; since, in proportion as the diet partakes of a vegetable, and more particularly of a cereal character, the amount of hippuric acid in the urine is increased, and that of the uric acid decreased. The quantity of sodium hippurate necessary in a dilute solution to decompose uric acid appears to be in the proportion of twenty-five parts to one. Similar results were obtained by the use of sodium benzoate, the benzoic acid uniting with glycin, or gelatin sugar in the body, to form hippuric acid. As the chalk stones of gout and gravel or calculi consist of sodium urate, Dr. Garrod concluded that sodium hippurate would be useful in such complaints, and found that great advantage was derived by patients from the use of sodium hippurate and benzoate in gout, so much so that patients asked to be allowed to continue the use of the remedy. Sodium hippurate acts advantageously on the mucous membrane of the bladder and its appendages; where there is a tendency in the urine to become ammoniacal it checks it. Urine containing hippuric acid is less liable to decomposition than urine in which it is wanting. This action on the mucous membrane probably influences beneficially the secretion of colloid matter, and may thus prove valuable in gravel and calculus, since the secretion of colloid matter is intimately connected with the formation of the deposit of urates. The salt will likely be of

service in forms of eczema, connected with the presence of uric acid in the blood. Hippuric acid can be prepared artificially by heating glycin with benzoic acid, but is obtained most easily by evaporating the fresh urine of cows or horses to about one quarter its volume, and then acidulating it with hydrochloric acid. The crude acid is then dissolved in dilute solution of sodium hydrate, the boiling solution freed from color by the addition of hypochlorite, and the hippuric acid precipitated by hydrochloric acid, recrystallized from water, and saturated with sodium carbonate; or it may be obtained by boiling the fresh urine of herbivora with milk of lime, straining and evaporating, adding sodium carbonate, and subsequently purifying the salt by crystallization. The dose is twenty or thirty grains thrice a day.

QUININE SULPHATE IN CINCHONINE.—In a recent discussion at the Paris Therapeutical Society (*Bulletin Générale de Thérapeutique*) Dr. Catillon raised the question whether the anti-febrile properties of cinchonine sulphate were not due to an admixture of quinine sulphate with the commercial cinchonine salt. Dujardin-Beaumez was of opinion that cinchonine salt had the same action as the quinine salt but it was more capricious and irregular. Moutard-Martin had shown that it had definite anti-febrile properties; Tanret thought that the proportion of alkaloids in different cinchona barks was of more importance to manufacturers than pharmacists. Only one-third part of the bark alkaloids was soluble and made its appearance in the various pharmacopœial preparations of cinchona. The rest, with the red coloring matter, remained in the residuum. E. Petit held the contrary opinion. There were cinchona barks totally destitute of quinine, and all barks should therefore be analyzed before being used in commerce. Three-quarters of the Javanese cinchona alkaloids could be extracted by water, and the entire strength of the bark could be exhausted by fifty-six per cent. alcohol. Furthermore, it was permissible (according to the French Codex) to extract the alkaloids by water first and then complete this extraction by an acid liquid. Tanret was of opinion that even with an acid liquor (unless a prejudicial quantity of acid) all the alkaloids could not be extracted.

VOLATILE liniments are applied to best advantage (*Druggist*) by saturating a cotton wad with them and then keeping the latter on the painful spot under the palm of the hand or by covering it over with rubber tissue. Where the application is pungent it must of course be moved about to prevent local blistering. The fact is generally lost sight of that the more a volatile fluid is rubbed about the more rapidly it is dispelled, failing to leave any impression. This includes camphor, chloroform, ether, oil of mustard and other ethereal oils. In the case of non-volatile liniments it is, of course, different. Such must be rubbed into the pores in order to derive any benefit. A good embrocation for facial neuralgia may be made by mixing chloroform, oil of peppermint, tincture of aconite root, tincture of opium, and spirits of camphor.

A NEW TEST FOR IMPURITIES IN CHLOROFORM.—Von Iyon (*Druggist*, Dec., 1883) says a solution of potash of permanganate is reduced by impure chloroform, but not by the pure article. A solution of one gram of potash permanganate and 10 grams of alcoholic potash solution in 250 grams of water possesses a beautiful violet color, which at once turns green when impure chloroform is mixed with it. Von Iyon purified the chloroform by dissolving the permanganate in the least possible quantity of water, adding 20 grams of potash and mixing this solution with the chloroform in a large flask, and shaking it from time to time. After a few hours it was decanted, and a fresh solution of permanganate added, and the operation repeated, until the latter retained its color for a few hours. The chloroform was then poured off, and dried with potash carbonate, and finally distilled.

**BISMUTH SALICYLATE.**—Dr. L. Wolff *American Journal of Pharmacy*, November, 1883) states that the different processes hitherto suggested for the preparation of this salt result in admixtures of it and bismuthyl nitrate or bismuthyl chloride. He makes a concentrated solution of sodium salicylate, with which he decomposes the glycerine solution of crystalline bismuth sub-nitrate. This resulted in the formation of bismuthyl salicylate, sodium nitrate, free nitric acid, salicylic acid and water, which were removed with water, and the still adhering salicylic acid removed by washing with hot water, and subsequently alcohol. The bismuthyl nitrate will yield on boiling with concentrated solution of sodium salicylate a bismuthyl salicylate. Bismuth salicylate is of a granular consistency, and is not easily reduced to impalpable powder in the mortar. It is of a pinkish appearance, and under the microscope is distinguishable from the sub-nitrate by being of a distinct granular character. The granules are of even size, while the sub-nitrate consists of uneven broken crystals. In water, ether and alcohol it seems insoluble, and its solubility in acids is probably due to its decomposition, and the formation of bismuthous salts. Tests for purity consist in the absence of acid reactions, of water boiled with it (salicylic acid), its rapid combustion on platinum foil, with liberation of phenic odors, free from nitrous acid vapors and its distinct granular appearance without crystalline fragments under the microscope (bismuthyl nitrate).

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## REVIEWS.

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**A TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM.** By JAMES ROSS, M.D., LL.D., Fellow of the Royal College of Physicians, London, etc. Illustrated with lithographs, photographs, and three hundred and thirty woodcuts. Second edition, revised and enlarged. New York: William Wood & Co., 1883. Two vols. Pp. xxi.-1,023; ix.-1,047.

There is a good deal of "padding" in this book, and this is all the more to be regretted, as there was no occasion for any. The work contains a vast deal that cannot easily be found elsewhere, and there was no reason possibly for stuffing it with long extracts from works on the anatomy or the physiology of the nervous system. This almost universal vice, or this device for swelling a volume into proportions sufficient to ensure attention, the author could easily have avoided. This book would have been all the better for it. Indeed, it is a great treasure-house of most valuable facts, and one which would be a positive addition to any library. As a work of reference it is very valuable. It does not appear to contain anything original, but this does not render the book the less acceptable. It is on that very account more judicial, magisterial and comprehensive.

**A PRACTICAL TREATISE ON DISEASE OF THE SKIN, FOR THE USE OF STUDENTS AND PRACTITIONERS.** By JAMES NEVINS HYDE, A.M., M.D., Professor of Skin and Venereal Diseases, Rush Medical Col-

lege, Chicago, etc. Philadelphia : Henry C. Lea's Son & Co. 1883. Pp. 572.

The author of this work does not observe the promise made in the preface of writing concisely. His style is very diffuse, pleonastic and ambiguous. His sentences are often badly arranged, and the words are so involved as to produce confusion and doubt as to his meaning. His descriptions of diseases, though, of course, compiled, are yet lacking in definiteness and completeness. His views, not being original, but drawn from orthodox sources, are not open to criticism. His prescriptions are very abundant and voluminous, and if he had only bestowed as much attention in developing the principles which ought to guide the prescriber, as he has upon prescriptions, his therapeutics would have been more valuable. As a whole, the work is fair enough, but its *raison d'être* is not conspicuous.

DEEP BREATHING AS A MEANS OF PROMOTING THE ART OF SONG, AND OF CURING WEAKNESSES AND AFFECTIONS OF THE THROAT AND LUNGS, ESPECIALLY CONSUMPTION. By SOPHIA MARQUISE A. CICCOLINA. Illustrated. Translated from the German by EDGAR S. WERNER. New York : M. L. Holbrook & Co. Pp. 48.

This work reminds the reader of his first efforts at composition : say of his composition on the cow, or, if early patriotic, of his effusions upon the American eagle. It is remarkable for its very frequent use of the first person in pronouns ; for the absolute ambiguity of the relations of "deep breathing" to "song;" and for the very original conceptions of the authoress as to the pathology of "consumption." It, by inference, is rather a satire on doctors who, trying, by all of the influences of climate, diet, exercise and therapeutics, to mitigate the ills of consumption, are not aware that it can be "cured" by "deep breathing."

It is to be hoped that this simple but enthusiastic teacher is, ere this, engaged in the higher work of woman : taking care of an affectionate husband, and rearing up soldiers for the State. It is a better field for her, and one which it is hoped she will cultivate to advantage ; leaving the "cure of consumption" to those who look to the use of stronger forces for this purpose than are to be found in "deep breathing."

MARINE HOSPITAL SERVICE. Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the year 1883. Washington, D. C.

The size of this work shows that the hospital service is a matter of voluminous detail. It requires very many facts and figures, even with a great deal of discursive writing and special pleading, to fill up four hundred pages. The most valuable part of the work is represented by reports of cases, and every one will read with pleasure and profit the report of the yellow fever in Florida, as given by Dr. R. C. White.

**A HAND-BOOK OF THERAPEUTICS.** By SYDNEY RINGER, M.D., Professor of the Principles and Practice of Medicine in University College, Physician to University College Hospital. Tenth edition. New York: Wm. Wood & Co.

None but the babes and sucklings in medicine, and the graduates of some of the Ohio medical colleges, are unfamiliar with this standard work and long-accepted authority. It has long been a standard volume both in England and in this country.

**PARRISH'S TREATISE ON PHARMACY.** Fifth edition, enlarged and thoroughly revised. By THOMAS S. WIEGAND, Ph.G. With two hundred and fifty-six illustrations. Price, \$5.50 cloth; \$6.50 sheep. Philadelphia: Henry C. Lea's Son & Co. 1884.

This is an old favorite. A valued and most useful text-book in colleges and pharmacies. This edition contains the preparations of the new "Pharmacopœia," and the work has been edited and issued with great care and fidelity. It is published faultlessly.

**ELIXIRS; THEIR HISTORY, FORMULÆ, AND METHODS OF PREPARATION.** By J. U. LLOYD. Second edition. Price, \$1.25. Cincinnati: Robert Clarke & Company. 1883.

Physicians who compound their medicines in whole or in part will find this little work very useful and valuable. It is just such a guide as they often need, and it is one worthy of all confidence.

**A FEW OBSERVATIONS ON THE USE ON CHLOROFORM IN NATURAL LABOR OR OBSTETRICAL PRACTICE.** Original paper presented to the Texas Medical Association at its Fifteenth Annual Session. By H. C. GHENT, M.D., Belton, Texas.

This is a subject of great practical interest to every physician. The author of this pamphlet has prepared it with great care. He has cultivated a large field of study, and he offers with good judgment, and after due selection, the valuable fruits of his harvest. His conclusions are as follows:

First.—In all cases of so-called natural labor, I advise the use of chloroform as an anesthetic, for the relief or mitigation of painful sensations.

Second.—I confine its use to the second stage, as a rule.

Third.—I exhibit it by means of a folded handkerchief, taking special care always to allow free dilution with atmospheric air.

Fourth.—Ordinarily give it to the extent of obtunding sensation, but, if necessary, of abrogating the painful sensations, but not of abolishing consciousness.

Fifth.—It should be given intermittently; that is, during the pains, or uterine contractions, but never in their absence.

Sixth.—If danger of rupturing the perinæum, give the chloroform for its full relaxing influence or effect over that structure.

Seventh.—When there appears to be danger of lacerating the cervix, before complete dilatation, do not hesitate to give chloroform, in small doses, during the pains.

Eighth.—In the least apprehension of danger from a want of sufficient tonic contractions on the part of the muscular fibres of the uterus, give ergot, either per orem or by hypodermic injection, about the conclusion of the second stage of labor.

MALARIA. By S. BARUCH, M.D., New York.

This pamphlet is a reprint from the *New York Medical Record*. While the author gives in it nothing new or original, he has managed to present, with very clever comprehensiveness, a great deal of interest and value. The paper evinces much careful thought and sound judgment. The author, formerly of South Carolina, and justly appreciated there both personally and professionally, has made his home in this great city. He has brought with him the elements of success, and fully deserves this.

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#### BOOKS RECEIVED.

DISEASES OF THE BLADDER. F. J. Gant, F.R.C.S. Birmingham & Co.

MEDICAL JURISPRUDENCE. Allan McLane Hamilton, M.D. Birmingham & Co.

DISEASES OF THE HIP. V. P. Gibney, M.D. Birmingham & Co.

EXCESSIVE VENERY. Joseph W. Howe, M.D. Birmingham & Co.

REPORT SKIN AND CANCER HOSPITAL, N. Y.

Further list of books and pamphlets in next number.

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#### MISCELLANEOUS.

##### THE SIMS MEMORIAL FUND.

TO THE MEDICAL PROFESSION AND OTHERS THROUGHOUT THE WORLD :

THE great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynæcological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill, are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynæcological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the City of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to this journal which has been constituted the treasury of this fund—*The Medical Record*; New York.

FORDYCE BARKER, M.D., Chairman.

GEORGE F. SHRADY, M.D., Secretary.

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R. Beverley Cole, M.D., San Francisco, Cal.	A. J. Stone, M.D., St. Paul, Minn.

Other names may be added to this list from time to time. Over \$2,000 paid in.

KANSAS DOCTORS.—The laws of Kansas do not allow the prescription of liquors by physicians except under circumstances of extreme need, and the physician has to take the risk of a jury's deciding against him on this point.

THE *American Psychological Journal* (October, 1883) continues its useful work of endeavoring to improve the position and treatment of the insane. The chief article in this number is a strenuous insistence on the point, often urged in these columns, that the business of asylum medical officers is not to manage the farm, or purchase the stores, or supervise the machinery, but to treat the patients. This desirable limitation of their duties is, however, as far off as ever, and there is not yet the slightest sign of its approach. Meanwhile, our knowledge of insanity is at a standstill, and our treatment is chiefly castor oil.—*Med. Times and Gazette*.

DISAPPOINTING THE DOCTOR.—WATERBURY, Conn.—Five weeks ago, while operating a planer in the Blake & Johnson machine shop, William E. Hides had his head caught in such a manner that a bolt an inch square was forced into it just above the left temple, to his brain. Dr. North told him he should adjust his affairs, as death must ensue soon. Hides replied: "I am not going to die." No trepanning was resorted to, but the man recovered, and is now almost as well as ever. The throbbing of his brain may be seen through the great hole in his temple.

MR. HOLLOWAY is dead, and the papers have been full of moralizings on his career. There is doubtless a lesson to be drawn from the life of every successful man, and the one who wins his success by playing on the foolishness and credulity of his kind is an object especially worthy of meditation. His prosperity leads one to realize the low average of human intelligence, and tends to check overweening conceit in one's own powers, just as the sight of a successful conjuror depresses one's estimate of one's own acumen. Mr. Holloway, we are informed by a correspondent, was a great hypochondriac. In his earlier days, when he lived over his pill-shop in the Strand, he often consulted Mr. Digby, a well-known practitioner of the neighborhood, whose remedies, we are told, he invariably preferred to his own. Mr. Holloway will be chiefly remembered as the man who first conceived the possibilities of fortune which lie in the modern development of the advertising system. It needed a certain kind of genius to see that; and he has shown the same grandeur of conception in the two remarkable institutions to which he has devoted such a large part of his fortune. But the moral of his life is not a wholesome one. It is sufficient to tempt unstable minds astray. It is not pleasant or encouraging to the medical practitioner, who, after a life of incessant but honorable labor, barely manages to provide for his family, to see a seller of quack medicines ranking among the richest millionaires in the world. Holloway's success and that of his imitators has not had a good effect on the medical profession, and if there is no open advertising by medical men, there is more than enough of advertising under the rose. There are men amongst us—not greatly respected, it is true—who manage to advertise themselves in almost as many newspapers as Holloway, and without paying a sou; but, happily, we have not heard that they have secured any share of his marvelous success.—*Med. Times*. [This criticism is equally applicable here.—E. S. G.]

SLEEPING TOGETHER.—Somebody has said that more quarrels occur between brothers, between sisters, between hired girls, between clerks in stores, between apprentices in mechanics' shops, between hired men, between husbands and wives, owing to electrical changes which their nervous systems undergo by lodging together night after night under the same bedclothes than by any other disturbing cause. There is nothing that will so derange the nervous system of a person who is eliminative in nervous force than to lie all night in bed with another person who is absorbent in nervous force. The absorber will go to sleep and rest all night, while the eliminator will be tumbling and tossing, restless and nervous, and wake up in the morning fretful, peevish, fault-finding, and discouraged. No two persons, no matter who they are, should habitually sleep together. One will thrive and the other will lose.—*Exchange*. NOTE.—This is a very ingenious theory, and very welcome to every Captain Caudle with a scolding wife; but it is not sound. Doctors never sleep together and yet they are always quarreling.

WHAT TO DRINK TO KEEP YOU WARM.—“If you want a drink that will keep you warm a whole night long out of doors,” said an old policeman to a friend, “don't drink whiskey or rum or any liquor. The heat they afford is short lived, and leaves you cold and weak. They are worse than nothing. But drink a glass of ale and pepper—new ale and common black pepper. It will not affect your head, but it will keep your blood warm in the keenest wind and coldest rain.” “I never tried the pepper part of that prescription,” said a Third avenue car driver, “but ale is, I know, thought to be very warming. We car drivers have colder work than policemen do, I think, and the old ones among us have tried every drink you ever heard of. A lot of us were talking the whole thing over the other night. Hot rum, hot whiskey, brandy and ginger,



and all the cold, clear alcoholic drinks were discussed. But the majority were in favor of hot coffee. That is the least hurtful, the most heating, and the longest-lasting drink I know of."—*New York Sun*.

**THE SKELETON'S BRIDE.**—A short time ago a "leading living skeleton" was married to a young woman of average weight. A day or two later she returned to her parents in a condition—as they allege—of "raving insanity." The skeleton, refusing to believe that his personal appearance is adapted to drive the wife of his sternum (he has no bosom) crazy, has applied for a writ of habeas corpus to compel his bride's parents to surrender her to his loving humerus and ulna!! It is believed of the skeleton that his better three-fourths is perfectly sane and anxious to be with him, but that her cruel father is forcibly detaining her, wherefore the law is called upon to settle the dispute.

There is no doubt that a living skeleton is a person in the eye of the law, and is capable of contracting marriage with a woman of any weight. There is, therefore, no dispute as to the legality of the skeleton's marriage. He did not choose to marry a female living skeleton for the obvious reason that there are none on exhibition. The experiment of exhibiting female living skeletons has been tried in a timid way at our opera houses, but the skeletons have been almost lost to view in the folds of the dresses usually worn by chorus singers, and the experiment has been invariably recognized as a failure. To expect a living skeleton to marry a fat woman would be unreasonable, since the two would pass their lives in envying one another. Hence, it is clear that a living skeleton must either remain single or must marry an ordinary woman, and no one can blame the particular Skeleton who has taken the latter course.

The motives which induced the living skeleton's wife to marry him have not been announced. Possibly she is a New England woman, imbued with the Concord philosophy. She may have admired the skeleton's intellect, and desired to prove to the world that she placed no value on mere physical attractions. Perhaps she coveted a share of the living skeleton's salary, and felt that bonnets and sealskin sacques bought with his money would be as welcome as if they had been bought by a good man weighing two hundred and forty pounds. It is even supposable that she foresaw advantages in the possession of a husband of such light weight that she could enforce her views as to his proper course of conduct with one hand and without the least necessity of touching a broomstick. Whatever may have been her motives, she married the skeleton, and ought undoubtedly to assume the duties of a wife.

In spite of the skeleton's conviction that his wife is not insane, it is barely possible that she overrated the strength of her nerves and is really suffering the consequences. A living skeleton on private view ought not to be more startling than a living skeleton on public exhibition, but for all that he may be. If the skeleton's wife woke up suddenly in the night and saw the moonlight shining through her husband's ribs as he gazed out of the window, she may have mistaken him for a peculiarly frightful variety of ghost and so lost her reason. Or she may have strolled with him through the empty hall of the museum after the visitors had departed, and the sound of the midnight wind sighing through his legs may have been more than her courage could support.

In any event, the dispute between the living skeleton and his father-in-law can be easily settled. Either the wife is insane, in which case he does not want her, or she is sane, in which case he can easily release her from her parental gaoler. As an unhappy, and possibly ill-treated skeleton he deserves our sympathy and our best wishes for his success.—*Times*.

**DR. A. AMES.**—The board appointed by the Commissioner of Pensions to investigate the charges of irregular practices made against Dr. Azel Ames, a mem-

ber of the Boston Board of Medical Examiners of the Pension Office, has made a report to the Commissioner, in which they say that, after careful examination of the affidavits laid before them, it is their judgment that Dr. Ames is shown to have violated the instructions to examining surgeons, and to having been guilty of conduct unbecoming a member of the board to which he was attached, and that he is, therefore, unfit for the duties of such a position.

ADULTERATION OF FOODS—GLUCOSE IN SUGAR AND IN SYRUPS.—The fact is so well known as to be admitted by all (*Scientific American*) that a considerable part of the articles which we consume for food and for drink are open to the belief that "things are not what they seem." Meat and fish cannot very well be imitated, and we probably buy real beef, and veal, and chickens, and codfish, and halibut, though they certainly may be all of them so wonderfully fitted up for the purposes of sale as to impose on the purchaser sadly. But butter, and sugar, and coffee, and tea, and vinegar, and spices of every sort, we purchase in a state of purity in only exceptional cases. Wherever an imitation can be made that costs less money than the article which is the original, we may be sure that on an average our chance is good for getting the counterfeit.

We are apt to think that if we select a grade of high price in any special line, we are sure of getting what we profess to get, and perhaps it is a good plan to lay that flattering unction to our souls, for we feel better after it; but the simple fact is, that in general the higher the cost the better the adulteration pays, and as human nature is open to influences, the larger money brings us a more elegant style of imitation only.

Inasmuch, then, as the admixtures are so very common, it becomes for us a question of almost vital interest to know whether they are injurious to health, or whether they are harmless. If we barely lose our money, because we do not get what we think we do, that is bad enough; but if, on the other hand, we are at the same time poisoning, or at least injuring, ourselves and our families, the case assumes a very different aspect.

Our attention has been recently called to one form of adulteration which is so exceedingly common that we cannot go a single day free from it. We allude to the presence of glucose in sugars and in syrups, and we take up the subject in the hope that we may dispel some groundless fears. That the glucose is there is as sure as the sun rises daily. There may be some sugars and syrups that are pure and honest, but there are many which are not. We are not speaking at random in this, we are only testifying to what we know by experiment. We have purchased sample lots, here and there, in New York and in other places, taking care to get them only from dealers where we were likely to get our articles of as good quality as could be found. Chemical trial showed in almost every instance the presence of glucose.

An apothecary submitted to our examination a sample of sugar from a lot he had just purchased for his pharmaceutical use, which had been recommended to him as absolutely pure; it showed over five per cent. of glucose. We have seen barrels opened, found the maker's guarantee of perfect purity lying under the barrel-head, taken samples from directly beneath the printed falsehood, and found them rich in glucose.

We do not, therefore, dispute the presence of the admixture, but it is a perfectly harmless substance and need never cause alarm to any one. This is what we meant by saying that we hoped we might allay groundless fears. We may eat and drink glucose all our lives, our children may take it down *ad lib.* in their candy, as they are doing every day, we may have it in our delicious maple syrup on our buckwheat cakes, and they will not hurt us any more than the cakes are bound to any way; we may revel in glucose, and live and die happy.

Let us look at it chemically. There are, as natural products, two forms of

sugar everywhere diffused; they are known as cane sugar, and grape sugar. Taken as a rule, it may be said that cane sugar exists mostly in the sap or juices of plants, and grape sugar in the fruits, though there are many interchanging exceptions. They are composed of carbon, oxygen and hydrogen, the proportions being in cane sugar  $C_{12} H_{22} O_{11}$ , and in grape sugar  $C_{12} H_{12} O_6$ . They are both harmless, and nutritious to the human system; they are both sweet, the sweetness of grape to cane being about as one to two. Chemically, cane sugar is a saccharose, and grape sugar is a glucose, the latter retaining this as a market name.

What we buy as sugar professes always to be cane sugar, made hitherto almost exclusively from the sugar cane. If now our grape sugar or glucose had been a natural product, say from fruits, there would probably never have arisen the prejudice against it which now exists. But it is not so; it is altogether a factitious article, and few people are sufficiently familiar with chemical principles to realize at once its real nature. All the glucose and grape sugar in the market is made by the action of sulphuric acid (oil of vitriol) on some vegetable material. In this country starch is used chiefly, as being the cheapest and most convenient, but linen rags are equally serviceable and produce an equally pure and excellent sugar.

That is one of the wonders of chemical combination—as much a wonder to the most thorough chemist as to any one else. He sees the work grow under his fingers, and what is done he does not know; he knows nothing but the result. He boils starch with sulphuric acid and water. The mixture, instead of being very sour is sweet to a certain extent; that is to say, sugar is there, but the acid is also there, for the acid has changed the starch to sugar, and yet has itself not been affected in the least. He throws in powdered chalk, which unites with the acid and, settling to the bottom, leaves a beautiful, clear, sweet solution of grape sugar.

PROFESSOR BILLROTH'S ANTISEPTIC PRECAUTIONS.—The Vienna correspondent of the *Gazzetta degli Ospitali* was recently invited to a laparotomy in Professor Billroth's clinique in the following note: Dr. — is hereby invited to the operation of — which is to take place —. It is understood that Dr. — undertakes not to visit the same day, before the operation, sick rooms, dissection rooms, or other places in the Pathological Institute, and not to wear clothes which he may be in the habit of wearing in visiting these places.

THE DANGERS OF NERVE-STRETCHING.—In a recent number of the *Annales de Charité*, Westphal reports the following case: A man, aged thirty-one, suffering from paralysis of the lower extremities, with spasmodic phenomena (startings of the limbs, exaggeration of deep and superficial reflexes, disturbance of sensation), was submitted to the operation of stretching the right crural nerve. Immediately after the operation a transient loss of the knee-jerk was noted, with stiffness of the muscles of the right limb. But incontinence of urine and stools with contracture of the flexor muscles, and the appearance of a large slough at the site of the operation also appeared and endured. The patient succumbed three years afterwards. At the autopsy the brain, the pons, and the medulla oblongata were found to have islets of degeneration; the cervical and dorsal segments of the cord were the seat of a diffuse degeneration, which attained its maximum in the middle part of the dorsal region; finally, the right half of the lumbar enlargement was sown through with numerous foci of degeneration, which Westphal considered as in all probability produced by the laceration resulting from the stretching of the right sciatic nerve. The weight of the authority makes the case worth recording in regard to the possible dangers of nerve-stretching.

THE PROSTITUTE.—Mr. Lecky, in his "History of Morals in Europe," has graphically described the condition of "that unhappy being whose very name is a shame to speak, who counterfeits, with a cold heart, the transports of affection; scorned and insulted as the vilest of her sex, and doomed, for the most part, to disease and abject wretchedness and an early grave, she is in every age the perpetual symbol of the degradation and the sinfulness of man; she remains, while creeds and civilizations rise and fall, the eternal priestess of humanity blasted for the sins of the people."

YANKEE SARDINES.—It is said that fully nine-tenths of the so-called sardines consumed in this country come from the State of Maine. Very few of the genuine French fish are imported now. These Yankee sardines are nothing but small herring prepared and put up in boxes, with attractive labels and French inscriptions. In Eastport there are nineteen establishments devoted to the production of sardines, besides three at Lubec, two at Jonesport, and one each at Millbridge, Lamoine, and Robbinston. In 1876 a New York firm did a lucrative business packing "Russian sardines" in Eastport!! These were little herring packed in small wooden kegs and preserved with spices of different kinds. It occurred to one member of the firm that these little fish might be utilized to better advantage by cooking them and packing them in olive oil, like the French sardines. The experiment had been attempted several years previous without success. The difficulty was to eradicate the taste of the herring. It was quite easy to cook the fish, pack them in olive oil in tin cans, and seal them airtight; but when they were opened they had not the rich, spicy flavor of the regular French sardines. After a great many experiments, one of the manufacturers succeeded in producing a compound of oil and condiments which removed the trouble.

The herring mostly used for making sardines are about four inches long, and are taken in immense quantities along the coast of Maine and New Brunswick. They can be purchased of the fishermen for about \$5 a hogshead, although when the fish are scarce, as they often are in the spring, they bring as much as \$15 a hogshead.

After being caught the fish are carried immediately to the factory and laid in heaps upon long tables. The first thing is to decapitate and clean the fish. The dexterity with which this operation is performed by the children who are employed is remarkable. On an average, seventy-five fish are cleaned and decapitated every minute by each child. Both operations are performed with one stroke of a sharp knife. A box holding about a bushel lies at the feet of each operator, and, as the cleaning is finished, the fish fall into the box. The pay for this work is ten cents a box, and some of the children make \$1.50 per day.

The herring are pickled for half an hour, and are then laid upon trays and placed in a large drying room heated by steam. After drying, the fish are thrown into large, shallow pans of boiling oil, and thoroughly cooked. They are then packed in tin boxes by girls and women, and in each box is placed a quantity of the patent compound of oils and spices. Covers are then fitted to the boxes, and sealed on by men. As air must be excluded the cans when sealed are placed in a tank of boiling water, where they remain half an hour, and are then removed and placed on an inclined plane, so that the air inside rushes to one corner of the box. This corner is punctured with an awl, the hot air escapes, and the can is made airtight by a drop of solder. The boxes are then ornamented with gay French labels, stating that the inclosed are "Sardines à la Française." Some are labeled: "À l'huile d'olive." The oil used is cotton seed oil, such as is made in South Carolina principally, and is not always the best even of that. The best oil is used, however, for fish sold as "prime."—*Scientific American*.

RULE FOR REDUCING DISLOCATIONS OF THE HIP JOINT.—“Having flexed the leg on the thigh, and the thigh on the pelvis, slowly rotate the limb as far as possible, inwards or outwards, according as the toes pointed in or out before beginning the manipulation; then rapidly and forcibly rotate the limb in the opposite direction, and the head of the femur will usually slip into the acetabulum. For example: In the iliac and the sciatic dislocations, the toes point inwards; therefore, rotate inwards as far as possible, and afterwards rotate outwards. In the pubic and thyroid dislocations the toes point outwards, hence rotate the limb outwards still more, and then inwards.”—*Ex.*

RECENT SYPHILITIC REMEDIES.—Dr. Taylor, in the last edition of “Bumstead,” mentions favorably several of the antisiphilitic drugs of more recent introduction, such as cascara amarga (Honduras bark), berberis aquifolium, tayuya and the alterative compound recommended last year in the *British Medical Journal* by the late J. Marion Sims. Gurgun balsam and kava kava are favorably mentioned for their effects in gonorrhœa and cystitis. Especial mention is made of coca erythroxyton in the treatment of syphilis, which Dr. Taylor states he has been employing in hospital and private practice for the past three years. He does not give it for any specific influence, but for its marked tonic properties on the heart, nervous system and capillaries, and its power to invigorate the system, to improve nutrition and to sustain life. As an adjuvant following a course of mercury or iodide of potassium he has found it to be attended by results which no other agent is capable of producing. Especially in the anæmia and cachexia of the secondary period is it valuable. Given with mercury it counteracts the adynamic effects of that drug. Several formulæ are given in which coca is combined, and the drug is spoken of in terms very enthusiastic.—*Med. Age.*

LUST.—It is hardly possible that any empress in this century would, like Messalina, boast of having had intercourse twenty-five times in one night, changing her male companion several times during this experience, then retiring from the exercise exhausted, but not satisfied. No emperor of the century would boast, as did Messalina’s husband, that he had deflowered ten Sarmatian maidens, who were captives, in one night. Herodotus tells us that among the Egyptians, when a beautiful woman died, the corpse was not embalmed for three or four days, lest those who did this work would first use the body for their lust. In the time of the Roman emperors *tribadism*, that depravation of the genital sense shown in women who sought the caresses of their own sex, was common: this female debauch was generally lingual onanism, that is, the use of the tongue applied to the sexual organs for masturbation. This loathsome vice was of Greek origin; Sappho, a Greek poetess, who lived in the island of Lesbos 600 years before Christ, vowed to sacrifice to Venus without the help of man, and young Lesbian girls followed her example; she gave her name to a particular form of poetic metre, Sapphic metre, and her name has also been given to this vice as a synonym for tribadism, Sapphism. Such conduct could not be attributed to any poetess of this age. Do you know that the famous Hippocratic oath required the physician to swear he will not seduce boys in the families he visits? How absurd to suppose that any physician of to-day would, or could be a pederast. In the time of the Roman emperors, Roman women sought solitary pleasures with the image of a human penis, called *priapus*, or *phallus*. The Greeks had their religious processions, at the head of which was borne an enormous image of the male organs of generation; the wild delirium, the mad orgies which the furious crowd exhibited upon these occasions have been admirably pictured in a recent novel translated from the German, called “Aspasia.” And this was in the age of Pericles!—*Extract from Lecture of Prof. Theophilus Parvin.*

## MEDICAL NEWS.

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"GAILLARD'S MEDICAL JOURNAL has returned from the weekly to the monthly form," so says the *St. Louis Courier of Medicine*, in its issue for January, 1884. This is a piece of news. The change was made in July, 1883.

THE *Kansas City Medical Record* is the title of a new monthly journal published in Kansas City. It has a better appearance than most Western monthlies.

DR. CHARLES WILLIAM SIEMENS, generally known as Sir William Siemens, died in London, on the 19th of November, in his 61st year. He was a native of Germany, and was one of four brothers, all remarkable for their scientific knowledge and inventive powers.

BOSTON VIEW OF THE NATIONAL BOARD OF HEALTH.—The *Boston Medical and Surgical Journal* of January 10, 1884, says of the National Board of Health: "For the last two years, however, there has been an evident lack of confidence in it (the National Board of Health) at Washington, the direct result of which has been that Congress has placed in the hands of the President the large appropriation of \$100,000 each year, to be used in controlling infectious diseases, and the President, through the Secretary of the Treasury, has disappointed the National Board of Health by putting this money at the disposal of the Marine Hospital Service. The board has not been able, apparently, to see, what has been so obvious to others, that this action has meant most decidedly that its existence in its present form is no longer desired. In any other country than the United States the resignation of its members would have been placed in the President's hands. . . . Thirty pages out of the one hundred and two of the report before us [are] devoted to the old quarrel with the Louisiana Board of Health, and which probably few people are interested to hear now." The journal advises the National Board of Health to confine its energies to internal matters and to work in harmony with the Marine Hospital Service!!!

M. ALPHONSE GUÉRIN has succeeded to the chair of President of the French Academy of Medicine, just vacated by M. Hardy.

THE ASSOCIATION JOURNAL.—The Association decided upon the establishment of a weekly medical journal instead of the usual volume of transactions, and Dr. N. S. Davis, of Chicago, was chosen editor. The journal has appeared every week since its establishment; but it can hardly be said fully to represent, as it should, the highest interests of a body such as the American Medical Association.—*Canada Lancet*.

THE PROFESSION IN GREAT BRITAIN.—According to an analysis of the new issue of the *British Medical Directory* given in the *Medical Times and Gazette*, the whole number of practitioners is 25,038; 4,417 in London, 11,775 in the provincial list, 2,206 in Scotland, 2,430 in Ireland, 1,717 resident abroad, and 2,493 in the army, the navy, the Indian Medical Service, and the mercantile marine.

AUTOBIOGRAPHICAL NOTES BY THE LATE DR. J. MARION SIMS.—In *Harper's Monthly* for February is an interesting story by the late Dr. J. Marion Sims, entitled "Lydia Mackey and Colonel Tarleton." It is a revolutionary sketch, and is taken from autobiographical notes left by Dr. Sims, who was a great-grandson of Mrs. Mackey.

DIED, on January 25th, 1884, after an illness of twelve days, Mrs. John Blankinship, wife of Dr. John Blankinship, of Maryville, Tenn.

DEATH OF ROBERT B. TOLLES.—The most eminent maker of microscopic objectives in the world died in Boston, on December 17th, aged sixty-two years. His death seems to be an irreparable loss to science.

FEMALE PHYSICIANS IN INSANE ASYLUMS.—Dr. Sarah Stockton has been appointed physician to the female department of the Indiana State Insane Asylum.

DR. D. C. GAMBLE, who has been for a year past the St. Louis editor of the *Weekly Medical Review*, has resigned, and will be succeeded by Dr. Julius Wise, whose name is familiar to those who have followed the course of medical journalism in the West, during the last few years. He was the first editor of the *Mississippi Valley Medical Monthly*.

DR. SIMS.—A committee has been formed, representing the profession in various parts of the country, to obtain funds for the erection of a monument to the late Dr. Sims in New York. Dr. Fordyce Barker is the chairman, and Dr. George F. Shrady is secretary.

EDINBURGH UNIVERSITY.—The number of students at Edinburgh University in the Faculty of Medicine during 1883 was 1781. Of this number 682 were from Scotland, 620 from England, 33 from Ireland, 123 from India, 264 from the different British colonies, and 59 from foreign countries. The degree of Doctor of Medicine was conferred upon 31 gentlemen, and 189 took the degrees of Bachelor of Medicine and Master in Surgery, the proportion of students in this faculty on the register proceeding to graduation being 1 in 8.

WESTON'S WALK.—Weston, the pedestrian, has undertaken a great walking task. At the instance of some English temperance societies, he has agreed to walk fifty miles a day for one hundred consecutive days, and to deliver a temperance lecture each day after his walk. He is to use no liquor during the time. At last reports he had accomplished about three-fourths the allotted task, and was in good condition.

IN April of this year Prof. Frerichs will have completed his twenty-fifth year of office as Director of the Medical Clinic at Berlin. A committee has been formed to make preparations for celebrating the occasion with due honor.

DR. REICHERT, late Professor of Anatomy in the University of Berlin, died December, 1883, at the age of 73. He was appointed to the professorship in 1858, on the death of Johannes Müller, when the Chair of Anatomy and Physiology, held by that distinguished physiologist, was divided; the department of physiology being assigned to Dr. Du Bois-Reymond. A few months ago Dr. Reichert retired from his chair, and was succeeded by Dr. Waldeyer, of Strassburg.

CHOLERA.—A clean bill of health is now issued to all vessels leaving Egyptian ports. No cases of cholera have been officially notified in Egypt since December 26th.

AN attempt is about to be made on a large scale to drain and replant the Roman Campagna. A certain amount of drainage work has been made compulsory on the landowners, and no fewer than 80 irrigation companies under Government control have been set to work to reclaim the waste lands. Minor experiments have meanwhile been fairly successful. Long-deserted spots about S. Paolo Fuori le Mura have been made habitable by plantations of eucalyptus.

THE *Journal of the American Medical Association* has successfully entered upon its second volume, and shows marked improvement in proof-reading; but somebody is still responsible for a good deal of uncertainty about French spelling and accents (“*Annals de la Societè Medico-Chirurgicale de Liege*,” for example).—*Med. Times*.

IT has been shown by Knies and Horner, by injections of Prussian blue in dead bodies, that there is a direct communication between the two retinae by the way of the optic nerves and chiasma. Pfluger has corroborated those assertions by making injections in dogs with a few drops of a saturated solution of fluorescine. This fluid is forced into the optic nerve, so that it passes not only into the subarachnoid but also into the subdural space. Two minutes after the injection both eyes showed a fluorescence of the retina, which persisted for five weeks. A small quantity injected into the orbital cellular tissue gave no result.

BALTIMORE is to have a polyclinic and post-graduate medical school. So are St. Louis, Chicago, Cincinnati, and Louisville.

NATIONAL MEDICAL UNIVERSITY.—A bill has been introduced into the United States Senate to appropriate \$1,000,000 as an endowment for a National Medical University at Washington, and \$100,000 additional for ground and buildings. The bill proposes to recognize all forms of practice. Silly indeed.

FEAR OF FEMALE STUDENTS IN RUSSIA.—All the female medical students in St. Petersburg—a class from which many redoubtable members of the Nihilist party have emanated—have just been compelled to take up their residence in a large boarding establishment, provided by the authorities, under the superintendence of Princess Shakafskoy, instead of being free, as heretofore, to live where they please. They are to pay 10 roubles per month for board and lodging, and be at home before nine o'clock in the evening, under penalty of exclusion from the medical course. Many of the ladies protested at first against this apparent restriction put upon their liberty, but eventually moved into their new official quarters.

AN EXCELLENT RECORD.—The New York, Pennsylvania & Ohio Railroad has a remarkable accident record. There has been but one passenger killed in the entire history of the road, covering a period of twenty-two years, and that one was caused by carelessness on the part of the passenger.

MAJOR J. S. BILLINGS, of the Medical Department of the Army, has been placed in charge of the Medical Museum in Washington.—*New York Tribune*.

THE BEAUTIFUL SNOW.—A Swiss scientist, Floegel, is said to have found, in examining the residue from the evaporation of freshly-fallen snow, living infusoria and algæ, bacilli and micrococci, mites, diatoms, spores of fungi (in immense numbers), also fibres of wood, mouse hairs, pieces of butterfly wings, skin of the larvæ of insects, cotton fibres, pieces of grass, epidermis, pollen grains, rye and potato flour, grains of quartz, minute pieces of roofing tiles, with bits of iron and coal.

THE *Medical and Surgical Reporter* begins the new year with a further addition of four pages to its weekly issue, which now contains thirty-two pages. It also announces that the volume just closed completes a quarter of a century of its existence as a weekly journal. Begun as a quarterly a number of years earlier, it was transformed into a weekly towards the close of 1858, since which date it has appeared every Saturday.



DRAMATIC PERFORMANCE IN AID OF HOSPITAL FUNDS.—A rather novel means of raising money for benevolent purposes has been tried at the Hôpital Saint Louis, Paris. The internes of the hospital got up an amateur "opera bouffe" in three acts, accompanied with appropriate scenery, and composed by themselves, for the benefit of the patients of the hospital. The performance took place in the new pavilion that was lately annexed to the institution, in the presence of 400 persons. The troupe included some of the first artistes of Paris, as well as amateur performers selected from among the internes of the hospital. The piece was entitled "Louis IX., Opéra polymorphe," and was well arranged, the performance ending with a ballet, followed by an apotheosis representing different categories of patients. The affair was a great success, and no less than 7,000 francs were realized on the occasion.

NERVI NERVORUM.—Mr. Victor Horsley has discovered sensory nerve-fibres and tactile end-bulbs in the epineural sheath of mixed nerves, and he will demonstrate the specimens at the next meeting of the Royal Medical and Chirurgical Society on Tuesday, the 22d inst. Nerve fibres supplying the bloodvessels in the sheaths of nerves have been described both by Sappey and Krause, but we believe that anatomical proof of the theory of true "nervi nervorum" advocated by Mr. Marshall in the Bradshawe Lecture has hitherto been wanting.—*Lancet*.

THE BLIND.—The last census reveals the encouraging fact that the proportion of the blind to the population has decreased with each successive enumeration since 1851, in which year account of them was taken for the first time. The decrease in the decade ending in 1881 was much greater than in either of the preceding decennial intervals, the number of cases returned on this latter occasion being 22,832, equal to one blind person in every 1,138. This decrease is fairly attributable to the progressive improvement in the surgical treatment of the affections of the eye, and to the diminished prevalence amongst children of small-pox.

A NEW anti-vivisectionist organ called the *Champion* is about to appear in England.

THERE are 79 deaf-mutes in the Mississippi State Asylum founded for their benefit. They are instructed in lip-reading and articulation as far as possible, and the boys in shoe-making, carpentering, and type-setting and printing. The girls are taught sewing with the needle and the machine, ironing, and other household duties. Among the boys are 16 negroes, some of whom are described as bright and intelligent pupils. No death has occurred in the institution since its reorganization in 1871.

THE *Jour. de Med. de Paris* says that decoction of quassia, applied to mosquito bites, constitutes an excellent remedy for the relief of the itching and irritation. When applied to the exposed portions of the body, it is also a preservative against the attacks of these very disagreeable and annoying insects.

VACCINATION IN INDIA.—The total number of persons operated upon during the year was over 4,400,000. Generally speaking, the treatment appears to have been successful, the ratio ranging as high a 98.39 per cent.

THE publishers of *New Remedies* announce of that journal, that as a result of the encouragement and support extended to it during the twelve years of its existence, they have made important changes and improvements in the journal,

beginning with January 1, 1884. The title has been changed to *The American Druggist*. It will be an illustrated monthly journal of pharmacy, chemistry and materia medica; price \$1.00 a year. The January number has been received. The page is nearly double the former size, and the type is new and handsome. *New Remedies* has always been a welcome exchange, and all are gratified at this evidence of its prosperity and future prospects. William Wood & Co., publishers, New York.

A SCARCITY OF ANATOMICAL MATERIAL IN CHICAGO.—The *Weekly Medical Review* states that there has been a decided scarcity of anatomical material in Chicago during the present winter, and that, in consequence, resort has been had to the graveyards.

DAMASCHINO, agrégé, has been appointed Professor of Medical Pathology at the Faculty of Medicine of Paris, in the room of Professor Jaccoud, promoted to the chair of Clinical Medicine.

THE NORTHWESTERN MEDICAL COLLEGE OF ST. JOSEPH, MO.—The State Board of Health of Missouri has fully exonerated the Northwestern Medical College, of St. Joseph, from all charges against it, and recognizes it as standing on a level with the best schools of the State. There was a full meeting of the Board, assisted by Drs. Rauch and Taliafero, of the Illinois Board.

THE editors of the *Archives of Medicine* with the December number announce a discontinuance of the journal, after a satisfactory existence of five years. The suspension is rendered necessary, not from lack of support by contributors or subscribers, but through a combination of extraneous circumstances.

THE January number of the *American Journal of Obstetrics* contains an excellent steel engraving of the late Dr. J. Marion Sims.

THE LATE DR. J. MARION SIMS.—It is announced that a former patient of Dr. Sims will give a bronze bust of the deceased surgeon, to be deposited in the new building occupied by the Harvard Medical School.

STATE MEDICAL SOCIETY OFFICERS.—The New York State Medical Association, at its meeting at Albany, elected the following officers: President—Dr. H. D. Didama, Onondaga County; Vice-presidents—First District, Dr. J. Mortimer Craw, Jefferson County; Second District, Dr. Tabor B. Reynolds, Saratoga County; Fourth District, Dr. B. L. Hovey, Monroe County; Fifth District, Dr. N. C. Husted, Westchester County. Recording Secretary—Caleb Green, Cortland County; Corresponding Secretary—E. D. Ferguson, Rensselaer County. Treasurer—J. H. Hinton, New York County; Councilors—First District, John P. Gray, Oneida County; Conant Sawyer, Essex County; Second District, J. W. Moore, Albany County; Thomas Wilson, Columbia County; Third District, Ely Van De Warker, Onondaga County; Frederick Hyde, Cortland County; Fourth District, M. W. Townsend, Genesee County; E. M. Moore, Monroe County; Fifth District, E. R. Squibb, Kings County; A. Flint, Jr., New York County. At Large, J. W. S. Gonley, New York County. The next meeting of the association will be held in New York city on the third Tuesday in November. This is the New State Medical Society: old coders.

THE SHROUD.—The undertakers have their trade journal. It is called *The Shroud*, is in its third year, and appears prosperous. The end which it serves apparently justifies the means.

DR. CHARLES M. FORD, a prominent physician of Washington, died February 15th, at his residence on Capitol Hill. Dr. Ford was about 43 years of age, and was a native of New York. He studied his profession in Philadelphia, and, after being graduated, entered the Union Army as a surgeon attached to a New York regiment.

JOHN G. SAXE, the humorous poet, is growing gradually weaker, at his home in Third place, Brooklyn. He suffers from cerebro-spinal meningitis, complicated with partial paralysis, induced by being buried under a railroad train in an accident on the Pan-Handle road years ago.

THE NATIONAL BOARD OF HEALTH. THE REPORT FOR THE YEAR 1882-1883.—The report of the National Board of Health for the year ending June 30, 1883, shows that of the \$50,000 appropriated by Congress for aid to State and local boards of health the sum of \$49,947.95 was spent in inspecting immigrants, to control the spread of small-pox, and in maintaining the Mississippi River Inspection Service.

It is said that the Emperor of Brazil has given Prof. Lacerda \$20,000 for his discovery of permanganate of potassium, hypodermically injected, as an antidote for the bite of the cobra.

THE Lynchburg *Virginian* reports that four-fifths of the deaths in the Virginia State prison occur among those convicts who are returned to confinement after having been employed in open-air work on railroads.

CREMATION is reported to have been made compulsory in Lisbon in times of epidemics, and every five years all bodies that have been buried are to be incinerated.

At their last meeting, the Aqueduct Commissioners decided to construct the new aqueduct of the size of fourteen feet internal diameter, and that its northern terminus should be at the present Croton dam. The construction of the Quaker Bridge dam, which is designed to form a reservoir capable of holding 32,000,000 gallons of water, has not yet been definitely determined upon.

BEQUEATHED TO HARVARD COLLEGE.—BOSTON, Jan. 16.—By the will of the late Dr. Calvin Ellis, the estate is left in trust for the benefit of his sister, and upon her decease \$50,000 goes to Harvard College.

EDWARD BAIN, of Alexandria, Ky., in a fit of jealousy, shot himself twice through the heart with a 22-calibre pistol, and still had strength enough left to blow his brains out.

THE LOUISIANA STATE BOARD OF HEALTH.—One of the members of the Board, Dr. Formento, has been nominated a corresponding member of the Société d'Hygiène Publique, of Bordeaux.

THE palace of the ex-Empress Eugénie at Marseilles, which she was obliged to give back to the city, has been turned into a medical school for the training of army medical officers and others.

ABDOMINAL SURGERY.—In the second number of the *Bristol Medico-Chirurgical Journal*, Mr. Nelson Dobson suggests the propriety of opening the abdomen in cases of perforating ulcer of the stomach.

THE new N. Y. County Medical Society (old code) has had another successful meeting. Its membership is rapidly increasing.

THE new medical law in Virginia requires graduates of every medical school to be examined by a State Board for license. More in next issue.

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## EDITORIALS.

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THE AMERICAN ACADEMY OF MEDICINE.—Now that Dr. F. D. Lenté, the originator and chief fosterer of this institution, is dead, and can no longer suffer from harsh criticism in regard to it, there can be no better opportunity than the present to say a few words on this subject.

The foundation upon which this organization rests is, that “no one can be a regular member of it, unless he has received a regular academic degree, based on a full course of collegiate study prior to commencing the study of medicine.”

If one had been asked to define some condition for membership in any scientific Body, which would be so absurd as to probably meet with universal contempt and ridicule, he might very likely have selected the condition for membership in the American Academy of Medicine, unless he were deterred from so doing by the fear that he would not receive the smallest support, and would only be rendering himself supremely absurd and everlastingly ridiculous. And yet this is the condition selected for membership in the Body mentioned; more than this, it is the chief condition; and above all, it is that which has received support from men otherwise sensible and judicious.

A very wise philosopher has said that “nothing seems to be so impossible as that which happens;” and in no respect was the acumen of the author of this aphorism more successfully displayed, than it has been in the history of the American Academy of Medicine. This was created; it has been developed, and it still lives. Why, it is absolutely impossible to explain.

According to its basis of organization, the most distinguished men that ever lived in the medical profession could not have been members. Such a proviso would exclude such men as Velpeau, Trousseau, Ricord, Jaccoud, Sir James Syme, Sir James Simpson, Faraday, and very many celebrities abroad. In this country the doors of such a society would be shut in the face of Warren Stone, Gross, Pancoast, Hodgen, S. Weir Mitchell, T. S. Bell, Drake, Joseph Leidy, Gouley, St. John Roosa, Barton, S. G. Wormley, A. Flint, Jr., F. H. Hamilton, W. H. Mussey, and a host of men whom the profession justly honor; men, it is safe to say, who have shed more honor and distinction upon the medical profession than have all of the members of the American Academy of Medicine put together. More than this, if the whole membership of that Body could, by some marvelous piece of machinery, be rolled into one man, he would be inferior to many whom the rules of this academy exclude from membership. Such an institution should have placed upon it the fatal heel of condemnation. It should be crushed out of existence.

Far be the day when this JOURNAL can ever adopt or advocate a leveling policy ; that it can say all men are equal in any respect possible, but in their political condition ; that education, the highest and the best, is not to be exalted and honored ; to be cultivated, protected and developed. But equally far be the day when it shall advocate the policy of excluding from fellowship (even the highest fellowship) those who are worthy of the honor, and who have overcome the obstacles of birth or poverty in attaining to distinguished honors and position among their fellow-men.

The want of education, the early deprivation of it, is an overwhelming, unspeakable misfortune, however heroically such unfortunates should redeem such disadvantages, and fight like heroes their way to the front. Shall they be shut out from even the highest seats in the scientific synagogues ? A thousand times no ! On the contrary, open wide the doors and the arms of fellowship to receive such men ; to welcome them with the heartiest welcome, with the heartiest and highest honors, and to give them all of the rewards which science has at its command.

If there are any physicians that should most sympathize with those of their brethren who have been deprived of collegiate advantages, and be most glad to aid them in their difficulties and struggles, it is those who have enjoyed the great blessing of early and thorough educational training. But here is an organized Body of respectable college graduates who advocate exactly the opposite principles ; who stand at these doors, and instead of opening them hospitably to all worthy comers, slam their doors in the faces of many heroes who approach ; not saying that " you cannot come in hither *until* you have won your academic degree" (this would be barbarous enough, and silly enough), but " you cannot come in hither *because* you did not have an academic degree before you commenced the study of medicine." What language is sufficient for denouncing those guilty of such an outrage and of such unspeakable folly ?

It is true that this Body can elect as honorary members those who cannot be admitted as regular members ; that it can put in the *higher* membership those unfit or unqualified for the *lower* membership (an unequalled piece of stupidity), but this is all a mere evasion of their own laws, a moral cowardice, shrinking from the logical deductions of its own deliberate legislation.

But apart from all of such nonsense and folly as has been herein described, what has the possession of a collegiate degree to do with fitness for membership in any medical organization ? Of course a collegiate training is a great blessing, a great advantage in the race of life ; indeed, its advantages cannot be overestimated or described ; but this is only the case when the representatives of this great advantage and blessing pursue subsequently a course or life of study. The great majority do not do so. They do not even appreciate the blessings they have had showered upon them, and unless such graduates continue to study, what becomes of their collegiate drill ? In point of fact, a collegiate course vastly facilitates the acquisition of a medical education, but it is folly indeed to claim that it is essential to such an acquisition, or that those who acquire a medical education, after enjoying collegiate advantages, attain, as a rule, or can attain, or must attain, for such a reason, a higher professional

status than those who without the academic degree become graduates in medicine. But even if the contrary were the case, even if it *were* true, that the academic degree is essential to the attainment of a certain professional status, one, while understanding how the Fellows of the American Academy of Medicine might say, "you cannot have membership here *until* you have the academic degree," could never appreciate the stupendous folly which exclaims to applicants, however distinguished, "you cannot become members here *because* you did not have the academic degree *before you commenced the study of medicine!*" Such an institution is unworthy of respect, or even of existence, and the sooner it has placed upon it the crushing heel of destruction the better will it be for the credit of the American medical profession.

"JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—About a year ago it was declared that the trustees of the *Journal of the American Medical Association* had determined to establish a medical journal, and had also made a selection of an editor. The matter was carefully presented editorially in this JOURNAL, and it was claimed, with due respect for the editor selected, that the trustees had made a double error; first, in selecting one of their own committee for the position (an absolute enormity in legislation); and second, in selecting one who was unable to discharge the duties demanded of him.

No notice was, practically, ever taken of that editorial, except that quotations were made from it by a few independent journals, and that many wrote to the author of it very pleasant letters.

The Association met. Hordes of medical editors, who either never had any opinions on the subject, or were afraid to express them, congregated at Cleveland, at the meeting; and, finding that an editor had been determined upon, became, all at once, clamorously eulogistic and anxious for his election. The Association had said, "at midday, it was night," and they, like Fadladeen, declared that "they saw the moon and stars." In other words, finding that the election was to be made, and that the journal might become a power in medical literature, they who had been absolutely silent for months past, and who seemed, at least, to be afraid of expressing any opinions, now suddenly found that they had the most definite convictions, and together declared that the editor selected was the editor indeed, and that beyond him there was no other, etc. The absurdity and inconsistency of this course must have been felt as fully as it was observed, but criticism was charitable, and the folly enacted was allowed by all to pass unscathed.

The experiment has been fairly made; more than a half year has passed since the *Journal of the Association* made its appearance. What is now thought of it? What does that portion of the medical press which has the courage of independent criticism say as to its meeting the demands made and the expectations formed in regard to it? The journals criticise books, monographs, proceedings, reports, etc., what have they to say to the *Journal of the Association*? It is not private property; it belongs to the medical profession; it is put forth as the ideal journal of the American medical profession. Is it a credit to this Body, or a discredit to it?

Such a journal is particularly the just subject and object of impersonal and

fair criticism, on the part of the press and of medical societies and of physicians. In a few months the Association will meet again. If its journal is a fair exponent of the erudition and force of the American medical profession, let it by all means be continued, and even as it is ; but if it is not, it is public professional property and should, in the interests of the profession and for the profession's credit, either be abandoned, or be put forth in such a manner as to command respect.

Each medical journal can speak for itself. This JOURNAL has only to reiterate what was before said, that, with all due respect for the editor of the *Journal of the Association*, and with all kindness of feeling towards him, the *Journal of the Association* is a real injury to the profession of this country. It does not, cannot, command respect. It is the inferior of almost every medical weekly published. It should be brought up to at least an average or fair standard, or be abolished.

A CURE FOR DEAFNESS.—A remedy for deafness has been discovered by an aged resident of Newport. Mr. Edward Smith, of that place, has been deaf for many years, the infirmity being the result of extreme old age. Of course, the doctors were unable to restore the hearing of an octogenarian, and Mr. Smith expected to end his days in deafness. It so happens that Mr. Smith has a son, and that this son has a shop, of some unspecified nature, in Newport. The other day Mr. Smith visited his son's shop, and fell down the front steps, whether by accident or design is not yet known. The result of the fall was that Mr. Smith struck the frozen ground with his head and immediately recovered his hearing. The son is about to apply for a patent covering his new front-steps specific for deafness, and expects to make a rapid fortune by curing his deaf fellow-men.

There is a very important question in connection with the cure of Mr. Smith's deafness. Was he cured simply by falling down and striking his head, or was the fact that his fall took place in connection with his son's front steps the immediate cause of his cure? In other words, does the essence of the new remedy for deafness lie in young Mr. Smith's front steps, or in the operation of falling and knocking one's head? It is safe to say that in order to cure deafness by a fall, the patient must fall down the front steps of young Mr. Smith's shop. Falling down other steps will not benefit him, for of the many hundreds of deaf men who have fallen down all sorts of steps, Mr. Smith is the only one who has been cured.

Deaf persons who desire to be cured must, then, go to Newport, and fall down the front steps of Mr. Smith's shop. This will, of course, render it necessary for Mr. Smith to erect a hotel where his patients can remain while under treatment. Many of them may have to use the remedy for deafness more than once, and all of them, as a rule, will require careful nursing in consequence of the shock to the system which the front-steps cure will involve. Thus young Mr. Smith will soon be at the head of a large and profitable front-steps cure institution, and he will make money as rapidly as those ingenious persons who, by taking boarders whom they induce to live chiefly on cold water, not only

achieve fame as "hydropathic" physicians, but reap enormous profits on their table.

Mr. Smith, as the sole possessor of the only front steps that will cure deafness, will of course have a monopoly of his remedy, and it is to be hoped that, with a view of increasing his business, he will not adulterate his front steps by enlarging them with new material. The scientific explanation of the way in which Mr. Smith's steps cure deafness is based upon the theory that, owing to the atmospheric conditions of the exact locality where the steps are situated, *the bacteria that produce deafness* are in such an exceptionally delicate condition that a fall, such as that which the elder Mr. Smith tried, instantly kills them. If either of the two conditions—the peculiar state of the atmosphere or the precise height and slope of the Smith steps—were wanting, it would probably do a deaf person no sort of good to fall down the steps in question. On the contrary, it *might irritate the bacteria of deafness* and lead them to an increased activity. It is obvious from these considerations that it will be quite impossible for Mr. Smith to put up in bottles his front steps. The front-steps remedy must be used *in situ* (a medical term meaning "in the front yard"), and there is no danger that any designing druggist will try to counterfeit and sell it.

Many prominent physicians, seeking to obtain practice or to increase it, will most likely give the inevitable testimonials as to the "Smith Steps Cure," and claim, as is usual, that they have used it in a large number of cases. In this way Mr. Smith may not only advertise his step cure but all who give him their testimonials.—*Times*.

THE BUSY PRACTITIONER AND LONG-WINDED ARTICLES.—The most widespread and, at the same time, the most transparent adulation is that offered, by so many of the smaller journals, to the profession, in connection with the subject of "the busy practitioner" and "long-winded articles." Journals of size, like the *London Lancet*, the *British Medical Journal*, the *New York Medical Journal*, the *New York Medical Record*, etc., never have a word to say on these subjects, which in other pages are topics so favorite, so prominent, and so familiar. One finds in the pages of the journals just mentioned the choicest articles of classic authors, the subjects being carefully elaborated and presented in detail. Indeed, such writers would not accept space under any other conditions, knowing that it is utterly impossible for even the most erudite physician to present intelligibly and instructively any medical subject, unless this is done carefully and in detail. It is only the men that can say very little on any subject in medicine who have the effrontery to try and present any subject in a few paragraphs.

As to "the busy practitioner not having time for reading long-winded articles," such a statement is a piece of manifest "buncombe" and silly flattery, offered to the foolish among the profession by such journals as have not the space in which to offer carefully elaborated papers. There is no physician who is too busy to read good papers. Indeed, if he is very "busy," he is so because he has been a careful student of such literature. What he knows he knows well, and if he reads an article, he wishes to study the subject of it. It is such careful study of the masters that makes the practitioner "busy."

Of course there are a few medical demagogues in every community who resort



to vile arts, to tricks and devices, to flattery, to covert advertising, etc., but they are not included, or worthy of being included, in any criticism. It is only to the true men of the profession that reference is here made; and these men, if "busy," are busy not because of having read miscellaneous paragraphs and foolish formulas, cut from medical briefs and almanacs, but because of their close study of the best papers of the best men.

The reader who turns from the paper of a writer because it is "long" is on the high and brief road to idleness, worthlessness and ruin. He has mistaken his vocation, and the sooner he gives it up, the better it will be, not only for himself but for his patients—and, above all, for his brethren. He is already a drone in the hive.

Velpeau did perhaps the heaviest work of his day in hospital, in college, in clientèle, and yet in his life he wrote eighty works. Trousseau, not less faithful in active work of all kinds, was also a prolific writer. So of Sir James Simpson, Sir Henry Thompson, Sir Spencer Wells; so of Mathews Duncan, Clarke, Williams, Roberts; so of Gross, Eve, Flint, Hammond, Thomas, Barker, Emmet, Sayre, Gouley, and a long list even in this country. They have been "busy," but they have read and written unceasingly; and such work it is that has made them "busy."

When one reads, as he does every day in the smaller journals, the statement made to the average practitioner throughout the United States, the doctors of eight or ten patients daily, and many of even less, that they are too "busy" to read long articles, but must read the little paragraphs (in such periodicals) as to what is "good" for something, what is he to do but smile? But if he has the misfortune to be an editor, there is one other thing he can do, must do—it is to expose the silly fraud herein mentioned, and to help men to see the truth.

THE TOLEDO (OHIO) MEDICAL COLLEGE.—The *Columbus Medical Journal* demonstrates very conclusively that this College is an absolute fraud. Its financial basis is said to be, by its medical faculty, "as firm as any other of the medical colleges in this country." This declaration is made to meet the requirements of the Ohio law, which demands that a college must have bona-fide property. The Toledo College is declared to financially rest upon nothing but the personal notes of its faculty. It yet claims to be as sound financially as Harvard or the University of Pennsylvania!!

In regard to its didactic equipment and efficiency, the faculty declares as follows: "There is no abler talent on this continent or in Europe than can be found in the Faculty, *each* member of which is a ripe scholar, a close student, and *diligent* worker in his special department, and no pains will be spared to make *their* teaching practical and instructive."

If anything can be more disgusting it is not yet on record. The writer of that foolish declaration cannot even spell correctly, and his syntax is as bad as his orthography. Hospital instruction is particularly promised; but it is said that there are only two hospitals in Toledo. One is under the control of the homœopaths and is not open to the Toledo College students, while the other hospital is controlled by a rival school.

“The requirements for admission,” so very satisfactory, as presented in the catalogue, seem to be fraudulent in character. One of the faculty writes to a student that “there is not much doubt that you will be able to pass the examination before entering. The *requirements* for admission *was* intended for patent doctors, midwives, and the like, who can not add up a column of figures or hardly write their own name.”

If this college is not a fraud, what is it? In the letter to the student, the writer (one of the faculty) concludes as follows: “Tell —— of your class that I had —— out to a case of confinement last week. I only staid with him about an hour and left him alone. He *stuck and hung* for twelve hours and *come* out all right, and the next morning the woman told him he was the best doctor she ever saw.”

It is to be hoped that the profession will remember these facts, though it must be admitted that, in these days, the whole system of “preceptors” for office students rests on a fraudulent basis, and that very many medical students go to those colleges which require least for a diploma, and promise most as to giving one!! *Honest preceptors make honest colleges.*

THE NEW YORK POLYCLINIC.—The February (1884) announcement of this very excellent and successful institution has been received. It contains some facts which are highly creditable to the faculty, and to “the management,” which is very materially represented by Dr. John A. Wyeth, who, holding a professorship in the school, is also Dean of the Institution.

The faculty is made up of many of the most accomplished practitioners and successful teachers in this city. Among the number, the editor of this JOURNAL is pleased to recognize the name of an old friend and accomplished specialist, formerly of Louisville, Ky., Dr. Richard C. Brandeis.

The following facts are highly creditable, and give promise of even a more brilliant success: From November, 1882, to October, 1883, there were 161 practitioners in attendance—161 in ten months; but in the past four months there have been 107 in attendance: a most conspicuous and significant increase.

The building is on East 34th street, 214 and 216, and is five stories in height. This valuable and expensive property has just been purchased by the faculty. It is to be remodeled throughout, and fitted with comfortable amphitheatres for chemical work, well furnished laboratories for chemical, histological and pathological studies, and rooms for operative surgery and demonstrations in surgical anatomy.

There are no didactic lectures given; the lectures are strictly clinical in character, and practitioners only are received, so that the lectures are necessarily practical and of a high grade.

The faculty holds seventy appointments in the chief hospitals of this city, and the clinical facilities there enjoyed are placed within reach of the Polyclinic's classes.

It is rare, indeed, that any School has so quickly attained such success, and the fact shows that the Polyclinic fully and satisfactorily meets a great want among practitioners.

## EDITORIALS.

THE MANY MEDICAL JOURNALS OWNED BY THE PROFESSION.—A few years ago, most of the medical journals in this country were owned by the publishers, or by the editors, or by both. Now, if one is to believe the advertisements and prospectuses of medical journals, a large number of these publications are “owned by the profession.” One advertisement informs the public that “this journal is ours only as to the risk and labor of conducting it, in all other respects the profession will feel that it is theirs;” another advertisement declares that “our medical brethren are to regard this journal as their own, as such to take it, and to write for it;” another says, “this journal belongs to the profession,” and so on, through very many such advertisements.

One is absolutely startled at first at the widespread ruin which has so suddenly and ruthlessly deprived so many editors and publishers of their property, until he reads, further on, the ominous word “*terms*,” declaring the price, on the payment of which any member of the profession becomes owner of one copy of a journal! This price is usually \$2.00 or \$3.00. Journals charging \$5.00 do not “belong to the profession,” but to their publishers, though the pages of these journals are open to all respectable writers.

It is related of the renowned Mr. Prentiss, of the old *Louisville Journal*, that he was once stopped in the streets of Louisville by a very irate gentleman, who thus accosted him: “Sir, I wish you to stop my journal.” “Your journal?” said Mr. Prentiss, “why, I was not really aware that you had a journal. How long is it since you have had one?” “I mean,” replied the now confused speaker, “that you must stop my subscription.” “Oh!” said Mr. Prentiss, full of fun, as usual, and at the same time very clear in his diction, “you mean that I am no longer to send you one copy of my journal. Certainly not, if all arrearages are paid up.”

Mr. Prentiss did not think, or wish others to think, that the public owned his journal. The same view is held by most publishers of medical journals who do not resort to “buncombe” for subscriptions.

ADVERTISEMENTS AND TEXT PAGES.—There are quite a number of subscribers who complain, in regard to American medical journals, that they carry too many advertisements in proportion to the number of text pages. Such complaints, it is true (like most other complaints), come from those who do not pay their subscriptions, and who, if others were like them, would bankrupt any journal; but there are some good men who do thus complain.

They seem to forget that a medical journal is valuable almost in proportion to the number of advertisements it carries, for it is this revenue that enables a journal to contract expenses for improvements which would otherwise be actually impossible.

Apart from this manifest fact, however, if advertisements come from good Houses, they convey to its subscriber, very often, information which in value far exceeds the cost of a medical journal for many years. Indeed, it is not unsafe to say that, if a subscriber examines regularly the advertisements in good journals, he will receive thereby such pecuniary profit that his subscription will really cost him nothing.

There are, however, men so constituted that they must grumble, and this subject of their receiving very many advertisements (which cost them nothing, and detract not one page from the text contents) is a favorite topic. Such "soreheads" ought to subscribe for English medical journals, and then they would learn more of this subject and grumble less over their own periodicals. One of the January numbers of the *British Medical Times and Gazette* contained 32 pages of text, and 88 pages of advertisements,  $2\frac{3}{4}$  pages of advertisements for every page of text. In this JOURNAL there are 120 pages of text and 24 pages of advertisements; or  $\frac{1}{5}$ th of a page of advertisements to every page of text. Facts are as necessary for a grumbler as they are for a logician, that is, if a grumbler can be cured!

THE "MEDICAL AGE" AND THE MEDICAL JACK HORNERS.—The *Medical Age* of February 11 has the following article: "GAILLARD'S MEDICAL JOURNAL dubs those editors who complain of the copying of their *extracts* from other periodicals, without credit, medical Jack Horners. It was 'little Jack Horner who sat in a corner eating a Christmas pie; he stuck in his thumb and pulled out a plum, and said what a smart boy am I!' It isn't a very smart thing to simply scissor out a plum from a medical article, but when an editor goes through a long article with a fine tooth-comb and succeeds in collecting its pith, he does legitimate editorial work and should be given his due of credit."

Is it possible that the editors of the *Age* do not know the difference between "an extract" and "an abstract?" It is evident that they do not, or they could not have issued such a paragraph. The proprietors of the *Age* ought to give them each an English dictionary. The book is cheap, and the editors need one very badly.

GAILLARD'S JOURNAL said nothing about "abstracts," which are prepared with labor and study, and ought, of course, to be credited, but did make the allusion quoted in regard to "extracts." Even the editors of the *Age* admit that "it isn't very smart to scissor out a plum from a medical article" (an extract); while they claim that when "an editor goes through a long article with a fine tooth-comb, and succeeds in collecting its pith" (an abstract, though very curiously described), he ought to receive "his due credit."

There is really no difference of opinion between GAILLARD'S MEDICAL JOURNAL and the *Medical Age* as to the occasions for giving credit, and if the *Age* had only known the difference between "an extract" and "an abstract," it would not have had anything to say upon the subject.

AN INFAMOUS LIBEL ON ST. LOUIS PHYSICIANS.—The following infamous falsehood is being generally published by the newspapers. One would suppose that even an idiot in a newspaper editorial office would know better, but in many of these offices there are those at work who have even less sense. St. Louis physicians do not object to a good income, and know how to make one, but this is always done with honor and credit. If one of them could stoop to such an infamy, as is herein described, he would be burned in effigy and drummed out of the city. Here is the libel: "Another ingenious device to gain an easy livelihood came very near costing two St. Louis men their lives recently. Early in

December one of them conceived the idea that he and his companion could be manufactured into Siamese twins by a simple surgical operation, and they employed surgeons to perform it. A piece of skin about four inches wide by three deep was cut and raised from one arm of each, exposing the flesh beneath. Then the two arms were brought together, the pieces of skin lapped one over the other, and the arms bandaged firmly and tightly together. The men were told it would take between twenty or thirty days for the two arms to grow firmly together, and during that time they must remain quiet in their rooms and eat, drink and sleep together. Their meals were brought to them, and they ate quite heartily until about the fifth day, when the healing process began, and then they lost their appetites. The pain at this time became very severe, and for two or three days both men were compelled to take to bed, because one or the other was too sick to sit up. Finally, fever seized both of them, and the doctors were compelled to cut them apart in order to save their lives."

UNINFLAMMABLE DRESS MATERIALS.—At this season of the year there are sad fatalities arising from the accidental ignition of the highly-inflammable materials which usually compose the dresses of females. Although many practical suggestions have been made from time to time with the view of popularising uninflammable dress materials, the use of such incombustible articles of apparel does not appear to have found favor with the fair sex. Tungstate of soda has been the material most frequently employed to render light fabrics uninflammable; it fulfils the purpose admirably, but its high cost has been an objection to its use. Patera's formulæ have stood successfully frequent trials of their efficacy. One of these preparations is made by dissolving three parts by weight of biborate of soda, and two and a quarter parts of sulphate of magnesia, in twenty parts of water. Fabrics soaked in this solution become coated with a borate of magnesia, which is insoluble in hot or cold water, and is a good resistant of fire. The other preparation is a mixture of sulphate of ammonia with sulphate of lime, or gypsum, in proportions of one part of sulphate of ammonia with two parts of gypsum. The gypsum is said to form with the ammonia a double sulphate which has not the disagreeable properties of the ammonia-salt. The action of this preparation seems to be twofold—first, in coating the fibres of the material to be protected, and also in the production, when the material is brought to a red heat, of volatile ammonia, which tends to smother flame.

MESMERISM AS AN ANÆSTHETIC.—At the regular monthly meeting of the New York Anthropological Society, February 6, at No. 25 East Thirty-fifth street, Dr. Buckley made an extended report concerning the true meaning of psychical research. He said that he had found mesmerism, electro-biology, hypnotism, etherology, and similar words to be merely convertible terms, although it was attempted to distinguish them from one another. He did not believe that the mesmeric influences had anything to do with the exertion of the will power. He had known people to go into a complete trance when alone, and evidence pointed to the conclusion that when three conditions were fulfilled in the subject, trance

would ensue—the conditions being confidence, expectancy, and subjugation of will. Dr. Carmichael spoke concerning the brain and nervous system, and tried to show that the phenomena of mesmerism were similar in all particulars to other phenomena exhibited by the nervous system. Dr. Jarvis spoke of a young woman whom he had hypnotized while he performed a difficult and painful operation, and he advocated the use of mesmerism as an anæsthetic. Dr. Roswell Smith was elected a vice-president of the society. A young man with a pimple on the end of his nose was then hypnotized, and convinced the society, by lying down on the floor and declaring that his name was John Smith, that he was under the mesmeric influence.

“INTERNATIONAL REVIEW OF MEDICAL AND SURGICAL TECHNIQS: OFFICIAL ORGAN OF THE AMERICAN ASSOCIATION OF THE RED CROSS.”—The first number of this journal has been received. The conception is good, and the execution better. The first number is prepared with great judgment and skill, and is liberally illustrated.

The editors pander to that familiar fallacy and folly of “the busy practitioner, having neither the time nor the opportunity to read:” a piece of adulation very appropriately coming from “paragraph journals,” but appearing very inopportunately from men of sense. It is the “busy” men who read, and it was much reading that made them “busy.”

One reads, too, with a little amusement and surprise, of Boston editors promising to be well “posted:” a piece of slang bad enough from any source, but coming from Boston, the very seedbed of philology, it is a shock indeed. Are not all Boston editors always “posted?” Such was the prevalent assumption! Why then the *promise to be “posted?”* Well, this JOURNAL hopes these editors will have the greatest success, and offers them the familiar wish: “May you live long and prosper.”

S. S. S.—This is one of the last abominations among the quack medicine series put upon the market. It is Swift’s Specific for Syphilis. The compounders offer \$1,000 to any one who can show that it contains either mercury or iodide of potassium!!!

This would be, to any medical man of ordinary sense, sufficient evidence of its worthlessness, and of the fact that it is intended to successfully appeal only to the instincts of the most stupid and illiterate among the masses. And yet there are “fellows of the baser sort” among medical men who are giving the inevitable “testimonials” that they have “used” it, etc., and that so long as a bottle of S. S. may be had, one need not be unhappy over any of the ills to which flesh is heir. With them, there is no poetic vision in the claim, that “there is a land of pure delight,” etc., but an actual truth, and that that land is the State of Georgia, in which S. S. is compounded.

It is to be hoped that the filthy circulars in regard to S. S. will be even more widely disseminated, that respectable physicians may see who are the debased members of the medical profession that can sink so low, as to give their names for the propagation of such dirty and trashy compounds.

PUTTING AN END TO THE BUILDING OF HIGH HOUSES.—It is a real pleasure to read, that in the New York Legislature, Mr. Howe has introduced a bill regulating the height of dwellings to be hereafter erected in this city.

In streets not exceeding sixty feet in height, fifty feet is to be the maximum altitude allowed, and in streets exceeding sixty feet in height, eighty feet is to be the maximum height permitted.

It is to be hoped that this will forever put an end to the absurd tower buildings that have in recent years been erected—structures that deprive the other buildings on such streets of sunlight and sun warmth, making them dark, cold, unhealthy and gloomy.

These tall houses are, in a hygienic point of view, a danger and a curse to any community, and in an artistic point of view they are ugly and hideous.

How could the Board of Health have been so inert in regard to them?

STUPIDITY AND BRUTALITY—“DIED IN A DENTIST’S CHAIR.—SCRANTON, Penn., February 7.—Mrs. James Stevenson, accompanied by her family physician, Dr. A. Strong, called to-day at the office of W. H. Heist, dentist, to have some teeth extracted. Mrs. Stevenson, who was 40 years old, was placed in the dentist’s chair, and Dr. Strong administered an anæsthetic composed of equal quantities of chloroform and ether. After the first dose two teeth were pulled, then a second dose was administered and nine teeth were extracted, after which a third dose was given and five more teeth were taken out. As soon as the last tooth was pulled Mrs. Stevenson’s head drooped and she died. The startled physician and dentist for the first time realized the grim effect of their work.”

The physician and dentist who could be guilty of such stupidity and brutality, as to administer chloroform to one in the sitting posture, and then performing such operations, deserve no mercy. They should be severely punished.

CREMATION PROGRESS IN FRANCE.—While cremationists are mobbed in Wales, and the zeal of the advocates of burning in England has grown so cold that they have no longer the inclination to say a word on behalf of incineration, M. Koechlin-Schwartz, the enthusiastic champion of cremation in France, has at last gained a victory over his numerous opponents. At the last meeting of the Society for the Propagation of Cremation, of which he is president, he stated, after receiving the report of Dr. Brouardel, that the Prefect of Police will authorize all the human débris from the hospitals to be burned in a crematory, which is to be erected in a Paris cemetery. From the cremation of the débris—that is to say, the arms, legs, and *disjecta membra* of hospital patients—to the incineration of a complete corpse, there is only a step. Perhaps Sir Henry Thompson and his allies will pluck up a little courage, and attempt to secure a similar concession.

OLIVER WENDELL HOLMES ON CONGRESSIONAL FUNERAL COMMITTEES.—Some of us have encountered Congressional committees attending the remains of distinguished functionaries to their distant place of burial. They generally bore up well under their bereavement. One might have expected to find them gathered in silent groups in the parlors of the Continental Hotel or the Brevoort

House, to meet the grief-stricken members of the party, smileless and sobbing, as they sadly paced the corridors of Parker's before they set off in a mournful and weeping procession. It was not so. Candor would have to confess that it was far otherwise; Charity would suggest that Curiosity should withdraw her eye from the key-hole; Humanity would try to excuse what she could not help witnessing, and a tear would fall from the blind eye of Oblivion and blot out their hotel bills forever.

**THE PAY PRINCIPLE AT GUY'S HOSPITAL.**—The authorities of Guy's Hospital, London, England, are making rapid progress in changing the principles upon which it was founded and endowed. Not content with setting apart a number of beds for paying patients, as they recently did, they have now determined to exact a payment of threepence a week, or sixpence a fortnight, from all out-patients receiving medicines or bandages. Exceptions will only be made in cases of extreme emergency or poverty, and these must be certified to by the Charity Organization Society. This is a move in the right direction, and will gradually put an end to dishonest application for charity medical relief. If continued, it will force all not entitled to such relief into the offices of private practitioners.

DR. H. H. KANE (160 Fulton street, N. Y.) is again sowing broadcast his circulars, testimonials, etc., in regard to his remedies for the opium, chloral and morphine habit, and alcoholism. He offers all that he has for sale now at half the price recently charged; and, if this be too much, he offers his services and his wares at even less. This misguided man has been so justly and severely punished, that even in his continued and degraded charlatanism one cannot deal him more blows. "He is a dead cock in the pit," and it is now only necessary to have "the remains" quietly removed.

**POISONED BY POSTAL NOTES.**—Several of the clerks employed in the Sixth Auditor's Office, Post Office Department, where a great many of the postal notes are handled, have been poisoned by constant contact with them. Arsenic is said to be one of the ingredients used in the coloring of the notes, and it is supposed that this is the cause. Superintendent Merrill, at the City Post Office, said that nothing of the kind had occurred in his department. The editor of this JOURNAL is not afraid of these postal notes, and will undertake to handle all that may be sent.

THE New Code stands by a vote, in the Medical Society of the State of New York, of 124 to 105; the vote in 1883 was 105 to 99.

There is but one course left for those physicians who are unwilling to be cut off from official fellowship with their medical brethren throughout the United States. It is to foster their own State Medical Society just formed, and to send delegates to the American Medical Association; these delegates would, it is needless to say, be welcomed with open arms.

**TUBERCULOSIS.**—According to the observations of the most prominent clinicians



(Formad) who have paid special attention to this matter there is not a single authenticated case of tuberculosis as a result of contagion on record. Among scores of experienced men who deny thus the contagiousness of tuberculosis it is sufficient to mention the names of Virchow, V. Recklinghausen, Stricker, in Germany; Gull, Williams, Watson, Paget, Humphrey, Richardson, in England; Bennett, in France, etc. The Wisconsin State Society says "otherwise!!"

ERRATA.—In Dr. Nunn's valuable article, on "Per-oxide of Hydrogen," in the January number, a few typographical errors occurred: On page 9, for "external trial," read "extended trial." Page 20, for the "unskilled deceiver, by the similarity of sound," read "the unskilled deceived by the similarity of sound." Page 21, for "presenting the development of the sequel of diphtheria," read "preventing the development of the sequelæ of diphtheria." On page 23, for "new centres," read "nerve centres."

"ANNALS OF ANATOMY AND SURGERY."—The following announcement is made: "On account of the departure of the senior editor, Dr. Pilcher, for Europe, in January, and the expected departure of his colleague, Dr. Fowler, for a similar trip abroad later in the season, the publication of the *Annals of Anatomy and Surgery* is necessarily suspended during their absence. If circumstances shall seem to warrant the resumption of the journal with the beginning of another year, due notice will be given."

AN EPITAPH—USE AND ORNAMENT.—When Sir John Carr was in Glasgow, he was asked by the magistrates to give his advice concerning the inscription to be placed on the Nelson monument, then just completed. Sir John recommended this brief record: "Glasgow to Nelson." "Juist so," said one of the baillies; "and as the town of Nelson's close at hand, might we no juist say: 'Glasgow to Nelson sax miles,' an' so it might serve for a monument, an' a milestone too?"—*Ex.*

THE DRY MOUTH OF THE LITHOTOMIST.—At a recent clinic, Prof. Brinton said that an attendant of lithotomy is dryness of the surgeon's mouth, similar to that produced by belladonna; and Prof. S. D. Gross remarked: "It is peculiar to the operation for stone; I have often felt it." A thesis showing the relation of a stone in one man's bladder to the salivary glands in another man's mouth would probably take the Lea prize.—*Col. and Clinical Record.*

DR. CHARLES W. DULLES recently showed, at the Pathological Society of Philadelphia, the heart of a young man, aged eighteen, which, when it had been opened and well washed and freed from all adherent parts, weighed forty ounces. The pericardium was universally adherent. All the valves were healthy, and the tricuspid and aortic valves were competent. The mitral orifice measured two inches and a half in diameter.

DR. EDWARD WARREN (Bey) formerly of North Carolina, and now residing in Paris, France, is at present on a visit to this country. He was very handsomely

entertained at Washington, D. C., February 13th, by Dr. J. M. Toner. Dr. Warren received the Egyptian title of Bey for his services to a former Khedive of Egypt.

DR. CALVIN ELLIS, it appears, died of perforating ulcer of the duodenum. Now that abdominal surgery is so safe, and gives such brilliant results, could not this life have been saved? The diagnosis had been carefully made, and the patient's condition was certainly good enough to have warranted the necessary operation. In these days one ought not to die of ulcer of the duodenum.

CHANGE IN TYPOGRAPHY.—The subscribers will appreciate and absolutely enjoy the change made in this number in the typography of the JOURNAL. In all articles more than a few paragraphs in length, the space between the lines has been increased; this renders the "reading" much more easy, and much less fatiguing—" *sat cito, si sat bene.*"

AMERICAN DIVORCE LAWS.—A man who has been married, divorced and re-married, will, in traveling from Maine to Florida, find himself sometimes a bachelor, sometimes married to his first wife, sometimes married to his second wife, sometimes a divorced man, and sometimes a bigamist, according to the statutes of the State through which he is traveling.

A MEDICAL MAYOR AND A SENSIBLE MAYOR.—The Democrats of Binghamton have nominated Dr. George A. Thayer for Mayor, and he has said, in accepting, that one great purpose of his administration, if elected, will be the rout of the Salvation Army.

AN opportunity to complete broken sets of this JOURNAL will be learned by examining the letter from Louisville, Ky., in the present number of this JOURNAL.

DR. SIMS.—The physicians and citizens of Dallas, Texas, are taking great interest in raising a fund for the Sims monument. The Dallas *Herald* recently contained an eloquent appeal on this subject from Dr. H. K. Leake.

THE SIMS' MEMORIAL FUND.—So far a little more than \$2,000 have been subscribed to this fund, and of this sum \$800 were given by eight physicians, making a little more than \$1,200 given by the profession.

STATE MEDICAL EXAMINING BOARD.—The efforts to establish a State Medical Examining Board for this State have failed. The Legislature has appointed a committee to prepare one and report it next year.

THE *Medical Record* reports over one thousand dollars contributed to the Sims Memorial Fund.

MESSRS. BIRMINGHAM & Co., the publishers, are to resume operations. Bravo.

# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

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Scientia et Veritas Sine Timore.

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VOL. XXXVII.

NEW YORK, APRIL, 1884.

No. 4.

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## ORIGINAL ARTICLES.

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ARTICLE I.—RECTAL PALPATION AND INSPECTION AS MEANS OF DIAGNOSIS. By PHILIP S. WALES, M.D., Surgeon-General U. S. Navy. Read before the Naval Medical Society, Washington, D.C.

Systematic and thorough examination is, as in inquiries into pathological conditions of all other organs, indispensable for the determination of the presence and nature of those of the ano-rectal region and for their successful treatment. As these diseases are not marked by any characteristic category of symptoms, the physician chiefly depends upon the indications furnished by palpation and inspection. It is, therefore, important for him to be minutely conversant with the various exploratory methods that are dependent upon the intelligent employment of the tactile and visual senses. This is all the more important, as the morbid processes which arise in this locality furnish an assemblage of human ailments that are occurring daily in both sexes, at all ages, and among people in every condition of life.

There are, however, several obstacles in the way of the acquisition of the knowledge alone attainable by these means. On the one hand, certain persons have an almost insuperable antipathy to any examination of this region until driven to do so by the exquisite anguish which is entailed by some of its diseases, or until the condition of the parts renders concealment no longer possible. This is especially the case with women, who shrink from the ordeal, either from timidity or natural modesty. On the other hand, the neglect or delay in making the necessary exploration is in many cases chargeable to the physician. It may be that he has conceived a repugnance to the performance of the required manipulation, or has recoiled from the disagreeable duty of urging submission on the reluctant patient, or has deferred the examination in the oftentimes barren hope that the disease will be transitory, or will recede under restricted diet and simple remedies. Then, again, too little attention has heretofore been paid to the methods of rectal investigation, which have, however, been so greatly improved in the last few years, by the combined labors of various individuals, that the discrimination and treatment of these diseases have acquired the same

scientific precision that has obtained in the diseases of other parts of the body.

It is not here intended to intimate that physical exploration is the sole means of elucidating the nature of these cases ; on the contrary, it is always important and often indispensable to supplement the information thus obtained by a full consideration of the general history of the patient, his age, idiosyncrasies, hereditary tendencies, etc. In many of these affections that have endured for some time, there is more or less mental despondency present ; the patient is irritable, and often conjures up dreadful anticipations of future suffering ; and the mental state not infrequently approaches that of confirmed hypochondriasis. The constant subject of his contemplation and conversation are his ailments, which are frequently highly-colored exaggerations of easily remediable conditions, or are even fanciful creations.

Those diseases that are attended with constant discharges, pain, and loss of rest, lead, after a time, to a general impairment of health ; the countenance assumes a pale or waxy hue, and the prolonged sufferings of the patient are mirrored in his face ; his flesh wastes, his strength gives way, and all aptitude for either business or pleasure vanishes in the meantime.

There is ordinarily nothing specially peculiar in the pain experienced in these maladies, with the exception of that of fissure and anal cancer. In fissure, it is of the severest character, and begins during the act of defecation, gradually increases to its greatest intensity in from twenty to forty minutes, when it declines and disappears until the next occasion returns for the evacuation of the bowels. Cancer located above the sphincters may make considerable progress without the manifestation of any pain at all, or so slight as not to create suspicion of the true nature of the disease, in consequence of the ampulla being sparsely supplied with nerves of common sensation. When the disease, however, is at the anus, the case is otherwise ; the pain is almost always very severe, being of the gnawing, lancinating character observed in malignant growths in other regions. Inflammatory swelling about the anus, and abscesses before the matter has gained issue, often inflict exquisite suffering which is very much intensified during the expulsion of the feces. Although the character of the pain, as thus shown, possesses little diagnostic value, yet the presence or absence of pain ; its course, whether intermittent or continuous ; whether it is aggravated by defecation ; or whether it precedes, accompanies, or follows defecation ; may supply a suggestion as to the direction in which to look for the trouble complained of.

The nature of the discharges varies in the different diseases, and in the same disease in its different stages. The evacuations may be simply fecal, of varying degrees of consistence—purulent, serous, mucous, or bloody ; but usually they present a heterogeneous aspect from the blending of these materials in divers proportions, or by their simple mingling. Blood, for instance, at times, is intimately mixed with the discharges, and at others merely smeared on the exterior. The color ranges through numerous tints from white to black, and those arising from the admixture of yellow and green. As to the character of the odor, there is equal variety, but the discharges, as a rule, differ in this respect from that of the ordinary contents of the bowels, being generally offensive. It

has been stated that it is quite peculiar and characteristic in syphilitic cases, but this I am unable to confirm ; in dysenteric ulceration, I have always noted the odor as highly offensive.

When the feces are consistent, it is a matter of moment to ascertain their configuration and size, whether cylindrical, or flattened and tape-like, continuous, or broken into masses or balls, and whether of normal volume or undersized. Regard must also be had to the fact, whether the gaseous or fecal contents of the bowels pass voluntarily or involuntarily. When constipation prevails, the time of its occurrence should be noted ; whether suddenly or gradually ; and whether it alternates with diarrhoea.

Inquiry should be made as to the occurrence of any protrusion during the act of defecation, or in the intervals, its nature, reducibility, form, tendency (if any) to bleed, etc.; whether there are any excrescences or ulcerations around the anus; abnormal sensibility or itching, or discharge of any sort. Diseases in other parts of the body that may have possible relation with those of the rectum must not be overlooked; as phthisis with fistula, venereal affections with stricture, urinary, uterine, and vesical troubles with rectal irritation. A case is recorded, in the *Gazette Médicale* for 1837, of a man who, after six years of unavailing treatment for retention of urine, was speedily restored to health by the discovery and removal of a mass of hardened feces. Badly fitting garments and the habitual use of coarse materials for the purpose of cleansing the anus may furnish an explanation of certain morbid conditions. The recital of the patient that he has swallowed some foreign body, as a fragment of bone, the seeds of fruit, or that he has found such objects in his dejecta, may at times throw light upon otherwise obscure cases. The fact that, at some particular time, a foreign body had been purposely or by accident thrust into the rectum, may be revealed in the personal history of the patient, and thus determine the nature of the case at once.

Having obtained all the information that can be gleaned by verbal inquiry, the physical examination is then to be made, as the only certain means of arriving at a correct conclusion. The bladder of the patient having been emptied and the rectum washed out by an injection, he should be placed in a position which entails the least suffering to himself, and affords the greatest comfort and convenience to the operator. As a special couch may not be at hand for this purpose, the next best thing is an ordinary lounge, which can be drawn to the window where a good light may be had. For office work, I employ a folding table, furnished with drawers to hold the ordinary instruments and medicaments, which, when opened, forms a couch seventy-eight centimetres high. In the majority of cases, the most desirable position in which to place the patient is upon the side, with both thighs strongly flexed upon the abdomen ; some prefer to have the inferior thigh extended, and the superior one bent. The former position is preferable, inasmuch as it permits the buttocks to be brought to the edge of the table or couch, and renders the separation of the nates more convenient, and presents to inspection the whole extent of the perinæum. If it be desirable, the patient may be directed to lift the nates of the upper side of the body with the corresponding hand. Other positions may

be adopted in special cases if necessary ; for instance, upon the back, with the thighs drawn up and widely separated, as in the lithotomy posture ; or the body may be supported in the genu-pectoral position, so as to cause the pelvis to assume the highest point in the plane of the body. Again, valuable information may be gained by conducting the examination in the erect position, with the thigh flexed and the foot supported on a chair ; the weight of the viscera is thus utilized in pressing the higher part of the rectum downwards within reach of the tip of the finger. This result is still further favored by causing the patient to strain down as if to evacuate the bowels. I have often conducted the examination with the patient leaning over the edge of a bed or the back of a chair. Digital examination conducted in this way enables the operator to explore ten or twelve centimetres of mucous surface ; the suggestion of Amussat to increase the length of the finger with an ivory thimble is of no practical value.

There is considerable variety as regards the normal perinæum, both as to amplitude and form. In some persons, the pelvic outlet is large, and the perinæum correspondingly ample ; in others, the ischia approximate the median line, and the pubic arch is narrow, thus diminishing the area of the region. The form varies with the degree of adiposity or thinness ; in certain subjects the surface is flat, the skin seeming to be stretched across the outlet like the head of a drum, and in others it is more prominent and arching. The surface is pigmented in various degrees in different persons and in different races, and supplied with hair varying in length and quantity. It is abundantly provided with glandular appendages, the mouth of the ducts being plainly visible as dots scattered over the surface. The anus is buried deep in the cleft of the nates in fat persons, and more superficial in thin. It appears in health as a circular or elliptical muscular ring, with its surface marked by smooth and delicately pigmented radiating folds. It is firmly contracted, and resists the introduction of the tip of the finger. Should there be no unusual degree of tension of the sphincter, pressure with the fingers upon its margins will evert the anal mucous membrane, when at least one centimeter of its surface may be inspected, and any morbid alterations it may have undergone, as fissures, hæmorrhoids, be determined, or the presence of parasites or foreign bodies be ascertained. The tip of the finger should be gently pressed in a line forwards and upwards into the anus, to ascertain the amount of muscular tension present, which varies with age, individual peculiarities, the condition of health, and in different diseases of the rectum. It behoves the practitioner to familiarize himself with the normal tension, as an important point in diagnosis, and of clinical value in certain cases where the sphincter is to be invaded with the knife ; the relaxed or parietic anus is tardy in recovering its tone and may never do so after division. The manœuvre, however, must be executed deftly, otherwise deceptive impressions will be received from the involuntary efforts which most patients make against the introduction of the finger. Gentleness, patience, and the co-operation of the patient in breathing freely, so as to relax the muscles of the perinæum and abdomen, will remove any exaggerated degree of momentary contraction. A correct knowledge of these varying physical peculiarities of the

normal perinæum is indispensable for a correct appreciation of its deviation from the normal.

The external surface may first be scanned to ascertain the condition of the skin, the presence or absence of eruption, of inflammatory swellings or abscesses, of ulcerative processes, hæmorrhoidal or other growths, prolapsus ani, polypi or fistulous apertures.

*Anal erythema* is a frequent disease ; it consists of a dermatitis of the skin, and is caused by prolonged irritation of the part, by which the epithelium is removed, exposing raw, tender, excoriated surfaces, discharging a serous and odorous fluid that does not stiffen the linen as that of the exudative dermatoses ; there is more or less itching present. The erosions are red, and stippled with white spots which correspond with the mouths of the excretory glands ; the epithelium of the surrounding region presents a whitish and macerated appearance. The erosions are ordinarily located on the prominent folds of the anus which are most exposed to friction, but may extend within the sphincter. They persist as long as the local causes upon which they depend exist. Among these causes rank the effects of friction between the gluteal surfaces, mostly observed in fat persons or in those who do much walking, excess of perspiratory secretion, worms, and the irritation arising from the discharges consequent to various diseases of rectum and alimentary canal.

*Eczema* affects the skin of this region in the erythematous, the squamous, and papular forms ; it may be confined to the anus, or extended over a greater or less extent of the perinæum. The surface is red, infiltrated, and moist, the secretion presenting a serous character and disagreeable odor ; there is itching, often of an intense character, and pain in moving about. The disease may originate without any tangible cause, but is usually due to the irritation of profuse and altered intestinal discharges, and to local rectal affections.

*Herpes* presents itself in the form of vesicles grouped on an inflamed and slightly elevated base. They are filled with a clear, serous fluid, which, after a brief period, turns opalescent and escapes, forming brownish crusts. The crusts, in falling, leave small superficial erosions, that may coalesce and form a large ulcer with festooned borders. These ulcers are disposed to heal promptly, and are attended with moderate heat, pain, and itching. It is important to distinguish them from venereal ulceration, erythema, and fissure. This is easily done by contrasting their characters of ready disposition to heal, vesicular beginning, superficiality, position around the anus, and the festooned outline of their borders, with those of the diseases mentioned, which are very dissimilar. The chancre is harder and deeper, occupies the margin or inner surface of the sphincter, and is accompanied with engorgement of the inguinal glands ; the chancroid has the same seat as chancre, but is auto-inoculable ; erythema is an erosion, and not an ulceration. Either of the venereal ulcers may, however, be engrafted upon the herpetic.

*Pruritus ani* is characterized by intense itching. It affects children more commonly than adults. No changes in the part are appreciable, other than those attributable to the frequent scratching which the disease provokes, and there is

often a peculiar depigmentation, which is characteristic. It may sometimes be traced to a local cause, as hemorrhoids, or to the presence of some foreign object. By gently pressing aside the rectal folds, I was once enabled to diagnose and speedily cure an inveterate case of this sort, due to thread worms, that had endured nearly two years. In another case, a little girl, eleven years of age, who had suffered for months with pruritus vaginæ, I relieved the trouble entirely by destroying the thread worms that had crawled from the anus to the vulva. In certain cases the cause is not apparent, the itching being seemingly dependent upon a pure hyperæsthesia of unascertainable origin.

*Abscesses* are common in this region ; they occur more frequently in men than in women, and among persons of the middle period of life than in infancy or old age ; and are either idiopathic or traumatic. Persons in apparently vigorous health sometimes suffer from them in consequence of some indefinable constitutional condition ; at other times they may be fairly traceable to evident impairment of the vital powers, as in tuberculosis, for instance ; though the same result may flow from the deposit of tubercular matter in the part itself. Most frequently, however, abscesses are traceable to local causes ; the action of vulnerants, blows or falls, prolonged riding ; the injury inflicted by hardened feces, or rough objects that have been swallowed ; or to ulceration of the rectal walls, by which an avenue is opened for fecal extravasation into the peri-rectal connective tissue. The disease is sometimes consecutive to morbid processes located in the rectum itself, or in the adjoining organs, or to some particular perineal dermatosis.

The physical appearances of abscesses will vary according to their nature and location. Those of a superficial character, seated in the skin and its glandular apparatus, present themselves as circumscribed, tender, red, and often painful tumors. Deep-seated abscesses occur in the cellulo-adipose tissue, filling up the ischio-rectal fossa, either above or below the plane of the levator ani muscle ; they occasion much distress, and at an early period cause a dull, heavy pain, and later, very severe suffering until the pus gains an outlet. The perinæum feels boggy or brawny ; the surface is of a red, violaceous or lurid color. Fluctuation is not evident until the matter has advanced to the exterior, or near to the intestinal wall. Chassaignac has recommended a manœuvre to detect the presence of pus, and at the same time to develop tenderness ; it consists in introducing the thumb into the rectum and placing the fingers upon the perinæum, so that the tissues may be pinched between them. One of the worst species of abscess of this region is that which takes its origin in the extravasation of urine. In women, perineal abscess may be confounded with the same process occurring in the vulvo-vaginal glands, with which it has many points in common. Huguier remarks that stercoral abscess only occurs in women afflicted with rectal inflammation and ulceration resulting from vicious habits, hæmorrhoids, rhagades, or anal fissure. The course of the abscess is slower, fluctuation more difficult to detect ; there is more extended bogginess, which is much less circumscribed than in phlegmonous inflammation of the glands ; it does not form a spherical tumor, which is movable beneath the fingers ; the pus is much greater in quantity than would seem to be in accord with the size



of the tumor; examination of the anal region and rectal palpation will show disease of the bowel; moreover, the finger in exploring the walls of the rectum may feel a depression or infundibulum which communicates with the purulent cavity.

*Ulceration*, encountered in the ano-rectal region, is due to various causes: 1st, to simple inflammatory action; 2d, to specific inflammation—gonorrhœal, chancroidal, or syphilitic; 3d, to scrofulous and tuberculous action; 4th, to cancerous degeneration.

Simple ulceration that arises from ordinary inflammatory action is found associated with herpetic and eczematous eruptions in the form of erosions, or small, linear or oval ulcers, the so-called rhagades, which occupy the anal folds; they are entirely distinct from those of venereal origin, either local or constitutional, although they may be inoculated with the specific virus of those diseases.

Gonorrhœal ulceration is the result of the direct application of the purulent secretion of that disease; it shows itself under the forms of erosion and fissures similar in character to those arising from acrid secretions from other than venereal sources.

Chancroidal ulceration is produced by inoculation of the part during coitus, or in pederasty, or by auto-inoculation from similar sores of the vulva. It is more frequent in the female than in the male sex; according to Fournier, as one to nine in the former, and only as one to four hundred and forty-four in the latter. Chancroid is commonly located on the margin of the anus, but may extend to the upper limit of the sphincter, and usually on the anterior and posterior segments, rarely the lateral; there are not often more than two present. When the sphincter is well dilated the sore appears as an oval breach in the surface, bounded by dusky-colored, perpendicular, and non-indurated borders; the base is covered with a closely-adherent, yellowish layer, which when removed leaves the subjacent surface raw and marked by grayish red striations, or, as in hæmorrhoidal subjects, by small denuded veins. There is a free discharge of a purulent, ichorous character, which produces similar sores by inoculation. Condylomata are almost constant companions of the chancroid, and in some cases there is suppurative adenitis in the groin. Pain of a moderate character is present at first when the part is handled, and also in defecation; but as the case advances, it often becomes excruciating from reflex excitation of the sphincter. No period of incubation is definable, and phagedenic complication is often observed. Under appropriate treatment the sores heal in from five to seven weeks, while under unfavorable circumstances it progresses until the entire anal region is involved, and the general health profoundly impaired. The subsequent repair of the ulceration and cicatricial contraction may originate stricture.

Chancrous ulceration of the anus is very infrequent, occurring in the proportion of one case to sixty-eight in other regions; in a tabulated exhibit of 1,237 cases, male subjects gave a proportion of one to one hundred and seventy-seven in other parts, and female, one to thirteen (Pean). It is the result of direct infection, and its secretion is not auto-inoculable as the chancroidal; in the

majority of cases it is probably the result of unnatural practices. Although located for the most part on the margin, yet, exceptionally, as I have seen, it may occupy a higher point. When more than one is present, the excess in number represents as many distinct infections. It presents a circular form margined by steep, indurated walls, inclosing an area of grayish color, secreting little pus. After running a chronic course the ulcer usually cicatrises; rarely does it become complicated with phagedenism. There is little pain complained of, unless the sore is located within the sphincter, and then only during the act of defecation; the lymphatic glands of the groin are swollen and indolent.

Among the secondary syphilitic manifestations in this region, the most frequent is the mucous patch which has been regarded by many observers as capable of direct infection. The folds of the anus are swollen and œdematous, and bear upon their surfaces ulcerated patches of greater or less extent, which do not trench upon the mucous membrane of the bowel. There is considerable variety in their appearance; in some cases the surface is eroded, red and granular, a little hard, and but slightly raised; in others more papular and raised; in a third group ulcers are well defined. There are commonly several ulcers, which are not painful except during defecation, and they emit an opaline, thick, or diphtheritic secretion. They must be discriminated from chancroid, fissure, and erosion, which are conditions, however, that may complicate them.

Tertiary ulceration is very seldom observed in the ano-rectal region; it has been described under the title of syphilitic lupus. The destructive changes result in the formation of angry and ragged-looking excavations, covered with a purulent, pultaceous pellicle, and bordered with hard, elevated and perpendicular boundaries. The gummata, which sometimes result in the formation of ulceration, occur as hard, rounded, and indolent tumors, which finally break down, leaving breaches of continuity of variable extent and aspect.

Anal ulceration is sometimes an expression of the scrofulous diathesis, although the phenomena commonly regarded as characteristic of this disease, as inflammation and suppuration of the lymphatic glands, may not be present. The process is similar in character to certain destructive changes met with in other regions of the body, known as lupus. Huguier, in an elaborate memoir, designates this condition under the title of *esthiomène*, and describes it as affecting conjointly the vulval and perineal regions. Two forms are said to occur, the erythematous and the tubercular; in the latter, there arise rounded or oval elastic nodules of a violaceous color, covered with thickened epithelium, which after a time ulcerate, and form more or less irregular chasms with sloping indurated margins, and coarsely granulated bottoms, of a pale violaceous tint. The tubercles may be seen in various stages of degeneration, and those that have reached the ulcerated condition sometimes coalesce to form one great ulcer covering the vulva and perinæum, as I witnessed once in a scrofulous mulatto girl. In certain cases, the destructive changes invade the recto-vaginal septum, establishing a communication between the two cavities, and in others, causing stricture. The ravages of the disease may extend deeply into the perineal structures, dissecting up the organs and tissues in every direction. There is rarely any constitutional disturbance, and little local pain or tenderness. The

disease is to be differentiated from syphilitic, chancroidal, cancerous, and elephantiasic ulceration.

Tuberculous ulceration is either due to the deposit of tubercle in the part, or to the lowering influence of the tuberculous diathesis upon its nutrition, as happens in other conditions that impair the vital powers. In the first case, the process begins by the formation of gray deposits, about the size of millet seed, in the mucous membrane and subjacent connective tissue; retrogressive metamorphosis finally occurs, with the production of small lenticular ulcers with infiltrated margins, and discharging a thin purulent material. The ulcers enlarge, by the repetition of the process, in their circumference, until a greater or less extent of the mucous membrane is destroyed down to the muscular tunic; the surface is red and granular, and the adjacent tissues œdematous and livid. The process is always of a chronic character; the ulcers may cicatrise and cause stricture, or progress to the formation of abscess, perforation, or fistula. There will be similar deposits in other organs of the body. This form of ulceration must be diagnosed from chronic ulceration, chancroid, venereal sores, scrofulous and cancerous disease.

*Cancer* is the most formidable of the diseases of the rectum; it occurs in the scirrhous, epithelial, medullary, and colloid forms. In the beginning, the finger encounters the deposit in indurated or nodulated patches, and in rare cases, in a polypoid form. The first symptoms that attract attention may be some functional disturbances in the neighboring organs, as occurred in a case of a friend of mine, a physician, who requested me to examine him for stone in the bladder, which he said he was sure he had; there was none found, and I then suggested an examination of the rectum, to ascertain the condition of the prostate, but instead of finding disease of this organ, an indurated patch in the anterior wall of the bowel was encountered; the patient died a few months later with scirrhus. As the disease advances, destructive and wide-spread ulceration occurs, often attended with hæmorrhage, and profuse discharges of an ichorous character and peculiar odor. These foul-smelling secretions must not be confounded with those that are sometimes associated with certain chronic ulcerations, which, besides the foul-smelling discharge, may also present the indurated margins regarded as characteristic of malignant degeneration. Cancer now and then invades the rectum from the adjoining parts, as was observed by me in the case of a lady with a scirrhous uterus; the recto-vaginal wall was destroyed in its upper segment, and through the aperture the cancerous growth projected into the bowel.

*Fistula* is recognized, when it presents an external opening, by passing a slender probe into the aperture along the entire course of the morbid channel to its termination. The orifice varies in position, and though usually found near the lateral margin of the anus, yet, at times it is far distant, as when it occurs on the buttocks, upper part of the thigh, over the sacrum, and still more rarely at other points. In a case that came under my care, in which the orifice was over the coccyx, a diagnosis of necrosis of that bone had previously been made. The injection of milk, or of some colored fluid has been suggested as a

means of locating the inner opening. This often presents itself as a circumscribed induration, whose centre is occupied by a depressible area, into which the tip of the finger sinks, causing more or less pain, and developing fluctuation, that disappears under pressure, by reason of the pus being expelled into the rectum; when the finger is withdrawn pus is seen smeared over its surface. With the finger in the bowel the point of a probe can often be felt when there is no aperture, if the intervening tissues are not too thick.

*Fissure* consists of an oval ulcer, which haunts the intervals between the cutaneo-mucous folds. It is usually located on the posterior segment of the periphery of the anus, but occasionally at other points. It is sometimes rather shallow and shelving, and at others presents deeper and steeper sides. When the anus is distended, the ulcer assumes an oval or rounded shape; the tension of the sphincter is increased, so that the introduction of the finger is attended with severe pain and is firmly grasped by the muscle. It is almost always accompanied with a small condylomatous outgrowth at its upper angle.

*Hæmorrhoidal tumors* are either external or internal. The former variety consists of the dilated veins of the sub-mucous tissue of the margin of the anus, and appears as soft, small, reddish, or reddish-blue, rounded growths, and numbering from one to three or more; they may be emptied of their blood by pressure between the fingers, but they resume their former fulness when the pressure is removed. Later, inflammatory changes may convert them into hard nodules. There is increased heat of the part during the inflammatory stage. Internal hæmorrhoids may also present themselves at the anus during a straining at stool, and occasionally at other times. The tumor is larger than in the former case, is dark red or violaceous, according to the degree of constriction exerted upon it by the sphincter; it is soft, compressible, and may be reduced.

*Prolapsus ani* appears as a dark red, soft tumor, of varying size, marked on its surface with circular folds, and at the apex with an oval or rounded slit, which admits the finger into the cavity of the bowel. It is circumscribed by a groove or fossa at its base, into which the finger may be inserted to a point where the mucous membrane, in passing from the tumor to be continuous with the anus, forms a cul-de-sac. Tumors similar in appearance, resulting from invagination, also present this groove, but without the cul-de-sac, so that the finger does not encounter any obstacle to whatever depth it may be thrust.

*Polypus* may appear as a tumor at the anus, and must be discriminated from hæmorrhoids, hypertrophy of the mucous membrane, and the vegetations that sometimes sprout from its surface, and from tumors by invagination. Polypus forms usually a globular tumor, sometimes lobed, and rarely botryoidal, soft to the touch, varying in size, of a reddish color, and its surface is covered with a mucous membrane, that is either granulated like a ripe strawberry, or bears ulcerated patches of varying extent; it bleeds easily when handled, and the finger may detect the constriction that forms its neck, and which attaches it to the intestinal wall a greater or less distance from the anus. The neck or pedicle is easily lacerable.

*Congenital defects* of the anus vary in their extent and character. Imper-

foration may depend upon the presence of a septum, located at any point from the orifice to five or seven centimetres up the rectum, or upon total absence of the bowel. In the former case, the finger encounters the obstruction, which, if thin, may be bulged downwards, as a globular projection, from the pressure of the intestinal secretions. On the other hand, when the septum is thick, or the rectum is absent, the finger is arrested by an unyielding mass of tissue whose thickness and the height it reaches in the bowel may be indicated by a catheter introduced into the vagina or bladder, between which and the finger placed in the anal orifice the obstructing tissues may be brought. It must not be forgotten that the sphincter may contract energetically when the rectum is absent. The termination of the rectum into any of the adjoining viscera, as the bladder, uterus, vagina, or urethra, must be ascertained by a careful physical examination of those organs.

The next step is to examine the sphincteric region, which, in general terms, may be said to embrace a space three centimetres in length, tubular in form, terminating above in the ampulla, either by a well-marked ridge, or imperceptibly according to the arrangement of the circular fibres, and below in the anal aperture. It has already been remarked that the lower half of this belt may be inspected by manipulating the anus with the fingers. To examine the upper part by palpation, the introduction of the finger is necessary; having previously pared the nail, lubricate the finger with cosmoline, and smear a little of the grease upon the anus, then gently press its point with a rotatory motion into the orifice, until the depth of the sphincteric zone is reached. Cautiously sweep its whole surface for evidences of diseases; a fissure may be readily detected by a sensitive finger, and morbid growths or stenosis, if present, may at once be determined. The projection of rigid folds or neoplasms must not be confounded with stricture, nor the occasional impaction of hardened feces, or an intestinal concretion (a case of which once came under my notice). In rare cases diverticula occur, into the narrow aperture of which the tip of the finger may pass, and convey the erroneous impression that a stricture is present.

For the inspection of this part, a speculum is necessary. The simplest one is the handle of a spoon, but a better one is that recommended by Colles, consisting of a single, polished, gutter-shaped blade, with rounded edges and a conical point, mounted upon a short handle, as shown in Fig. 1. This instrument causes no inconvenience by its introduction, and, by slowly sweeping it around, the entirety of the anus can be inspected in successive portions. The inner surface is smooth, plicated, and of a rosy color, in its usual condition, but when the sphincter is distended the folds are effaced. A circular white line is seen, which marks the point of transition of the cutaneous into the mucous membrane, as well as the interval between the two sphincter muscles.

In exploring the ampulla, the digital method is conducted in the manner described above, except that the finger is carried to its extreme reach. It is sometimes advantageous to employ two fingers instead of one, which entails little if any additional pain. I have often anticipated the digital examination by the injection of water or air into the rectum, for the purpose of dilating it and thereby effacing its folds. The walls, thus rendered smooth and arched, have some-

times presented a more favorable condition for the detection of ulceration and morbid growths, and for the examination of the osseous planes that bound the pelvic cavity. The diseases to be noted in this region are acute and chronic proctitis, internal hæmorrhoids, stricture, benign and malignant tumors, and foreign bodies that may have been swallowed, or introduced through the anus.

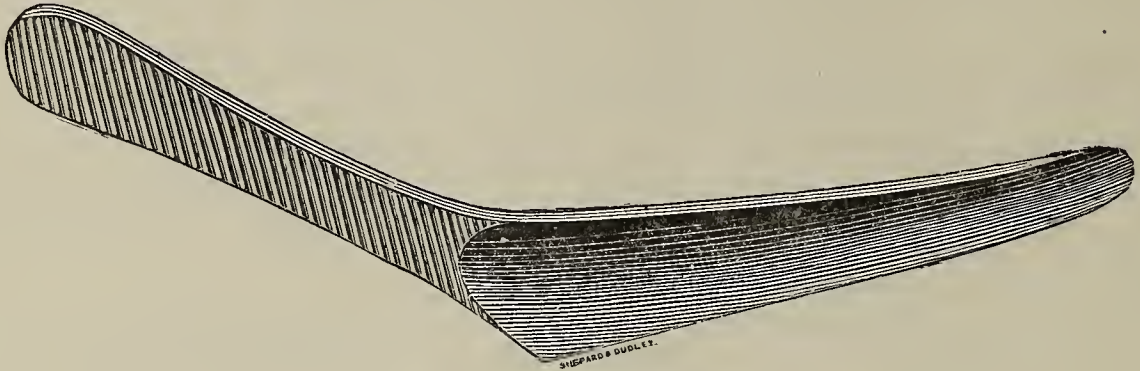


FIG. 1

*Proctitis* occurs in two forms, the acute and the chronic; and it is either primary or secondary. The acute form may be restricted to a limited extent of the bowel, or be diffused. It arises from cold, especially when the buttocks and hips are chilled by sitting on cold and damp objects; from the ingestion of indigestible food, foreign bodies, or drastic cathartics; from the influence of traumatic causes, including injuries of all sorts; the use of irritating clysters; the presence of foreign substances, worms, and hardened feces; the exhalation of noxious gases from latrines, particularly during the prevalence of dysentery; the gouty and rheumatic diatheses; and lastly, it is the frequent accompaniment of other diseases of the rectum. The chronic form may follow the acute, or it may exist primarily, as is most often the case when it is associated with other diseases. Proctitis is often complicated with disorders of the adjacent organs, caused by extension of the irritation to them, and hence the dysury, retention, vaginismus, and priapism that often occur in connection with it.

The disease begins by the patient experiencing a sense of distress and weight in the recto-perineal region, which settles later into a positive and often severe pain, radiating to the sacrum, bladder, and down the thighs; tenesmus is always present, and the discharges continue to lose their fecal character until little else than a blood-stained mucus is passed. In mild cases, there is only a burning sensation at the anus, with the characteristic tenesmus.

Palpation causes intense pain, and excites energetic contraction of the sphincter and perineal muscles; the rectum feels hot and swollen; and when the finger is withdrawn its surface is smeared with mucus streaked with blood. Inspection shows the mucous membrane to be dull red and œdematous, with swollen veins coursing over its surface; the papillæ are more or less hypertrophied, and the solitary glands scattered over the rectal folds are swollen into small rounded projections. There is deficient secretion in the early stage; but later, it becomes profuse and purulent, and excoriates the skin; in this case, the anus is swollen and œdematous, and its contractile power much

impaired, so that the mucous folds often prolapse, and the secretions escape exteriorly.

The disease terminates either by resolution, in which case there is often a sudden discharge of blood, or it may continue to extend up the colon, causing wide-spread destruction of the mucous membrane and the subjacent connective tissue. The resulting ulceration may cause perforation, or, after partial reparation, consecutive formation of stricture; or the inflammation passes into the chronic form, in which the pains grow less severe and assume more of a dragging character, and there is a constant discharge of pus, either pure, or mingled with fecal matter.

*Stricture of the rectum*, when within the reach of the finger, can be determined with precision. It may be classified under four headings: 1st, the simple; 2d, the specific; 3d, the malignant; and 4th, the congenital. The causes are ordinary inflammation, as seen in dysentery, venereal diseases, malignant growths, and congenital defects.

From mere inspection, no information can be obtained, as to the existence of stricture; while, on the other hand, palpation furnishes the only certain evidence. The obstruction may occur at any point of the rectum, but in dysenteric and malignant cases, it will usually be found higher than in the congenital and venereal. In width, the stricture varies from a millimetre or so to several centimetres; and its depth, from the slight projection of a narrow fold to that of one occupying the entire diameter of the bowel. It may assume the form of a crescent, a diaphragm, or a tubular narrowing, and is sometimes irregular and nodulated.

As the disease progresses, the part above the stricture becomes sacculated and the seat of extensive ulceration; and in some cases the part below suffers similar alterations. The evacuations, which at first were fecal and altered, perhaps, in their size and form, now become fluid and more or less mingled with blood, mucus, or pus. The abdomen enlarges from the distention of accumulated gaseous and fecal secretions, and various secondary changes take place at the anus, as fistula, hæmorrhoids, and abscess. There is simultaneous disturbance in the functions of the adjacent organs by sympathy, and in extreme cases the sphincter becomes paretic and swollen, so that the intestinal contents escape involuntarily.

*Foreign bodies* gain admission to the rectum in several ways—by the mouth, by being thrust from the exterior, or by working through ulcerated openings from adjacent cavities. The objects passing through the alimentary canal that are likely to be arrested in the ampulla, are fragments of bone, seeds, and substances accidentally swallowed, as artificial teeth. Those thrust into the anus are usually pieces of wood, small glass bottles, tumblers, goblets, iron wire, etc. It has happened that pessaries have ulcerated through the recto-vaginal wall into the rectum, as in cases recorded by Lisfranc and Desprey; and in one instance a pessary was thrust ignorantly into the rectum instead of the vagina.

Again, intestinal concretions and hardened feces may be the origin of symptoms of obstruction. Richerand was called to the case of a woman suffering from tenesmus, nausea, anorexia, and presenting emaciation; palpation revealed the

presence of a concretion to which all the symptoms were due. Peter relates the case of an infant dying in epileptic convulsions; the autopsy showed death to have resulted from a foreign body in the intestinal canal.

In old people, and in those who have suffered spinal injury, there may occur fecal accumulation in the ampulla from the impairment of its muscular contractility, which is readily detectable by the finger.

Rectal palpation is also an important means of ascertaining the condition of the surrounding pelvic viscera. It was in common use among the ancients for this purpose, as the well-known directions of Celsus for the diagnosis of vesical calculus clearly show. In the male, the prostate gland may be felt upon the anterior rectal wall as a firm oval body about the size of a large chestnut. Above this is the bladder, which, when full, presents itself as a soft fluctuating tumor, but when empty cannot be distinguished from the intestines which lie about it. The genito-urinary diseases that may be determined by rectal palpation are vesical and prostatic calculus, prostatitis, abscess, cysts, hypertrophy, atrophy, tuberculization, and morbid growths of the prostate gland.

In the female, the vagina and uterus correspond to the anterior rectal wall; the vagina conveys to the finger the sensation of a small tumor, moveable under pressure, while the uterus presents the os as a resisting, rounded swelling. When the uterus is retroverted or retroflexed, its fundus is felt as a globular tumor above the os. At the highest point, laterally, the ovaries and Fallopian tubes are reachable, especially when pressure is made over the hypogastric region so as to depress them in the pelvis. The various diseases of these organs arising from inflammation, abscess, or other morbid processes, may be ascertained in this manner. On the posterior wall of the rectum in both sexes, the finger ranges along the curve of the sacrum where scattered lymphatic glands are lodged in the connective tissue, whose condition it is important to ascertain in cases suspected to be cancerous.

- The condition of the ampulla itself may suggest, or even positively indicate, morbid changes in these organs. Scanzoni states that in a great number of uterine diseases the inferior part of the rectum presents a dilated condition, and a laxity of its walls which often extends to the sphincter itself, so that the finger passes into the anus without pain. The same author records a case of vaginal rectocele in which a tumor the size of the fist appeared between the labia majora, and contained a mass of hardened feces. Nélaton and Dolbeau mention instances in which there were projections on the anterior rectal wall corresponding with cystic tumors in the recto-vaginal septum, which pressed upon the neck of the bladder and caused retention.

Depressed fractures of the sacrum and coccyx may invade the lumen of the rectum and may be ascertained with the finger.

Having completed the digital examination, if it be deemed necessary to inspect the ampulla, certain instruments known as specula may be employed. Their use dates back many centuries, and there may be seen in the Pompeian collection at Naples contrivances that would answer the purpose, and which are in nowise inferior to those figured in the works of Paré, or Scultetus, written less than four centuries ago. Rectal specula are exceedingly numerous, but not



markedly various in their construction ; the essential object of all of them being to dilate the sphincter, and to separate the folds of the rectal mucous membrane, in order that sufficient light may gain admission into the bowel to illuminate its walls. Endeavors have been made to accomplish this aim, and at the same time to avoid as much as possible concealing the parts to be inspected with the blades of the instrument.

There are three principal groups into which all these instruments fall ; in the one, are gathered those representing cylindrically or conically-shaped tubes, complete or variously fenestrated ; in another, those consisting of two or more blades variously connected so as to open and close at will ; and in the third, single blades of various forms. The earliest and simplest form of the tubular speculum was a common metallic cylinder, flared open at the proximal end, and polished upon its inner surface. This has undergone several modifications as regards its length, the shape of the distal end, and in the form and extent of the fenestrations in its walls.

The materials employed in the construction of such specula are usually metal or glass, and exceptionally, wood, ivory, hard rubber, or porcelain ; their interior faces are polished or silvered, so as to secure a bright reflection. The area that can be inspected at any one instant is equal to the area of the distal end of the speculum, which the mucous membrane covers. To increase this area, it has been proposed to make the distal section oblique, so that the opening would be elliptical. This is the form preferred by Fergusson, Mollière, and others.

The method of inspection is simply to insert the instrument as far as desirable, when, by removing the plug, the mucous membrane, which covers and partially prolapses into its now open end, will become visible to the eye. The instrument is slowly withdrawn, so that by the time it emerges every point of the walls of the bowel will have come successively into view.

The difficulty of introducing the open-ended tubular specula is sought to be remedied by using a wooden plug, which projects beyond the tube in a conical point.

It was intended, in making lateral apertures of greater or less extent, and of a slit-like or elliptical shape, as shown in Fig. 2, to shun the necessity of removing the speculum in this manner.



FIG. 2.

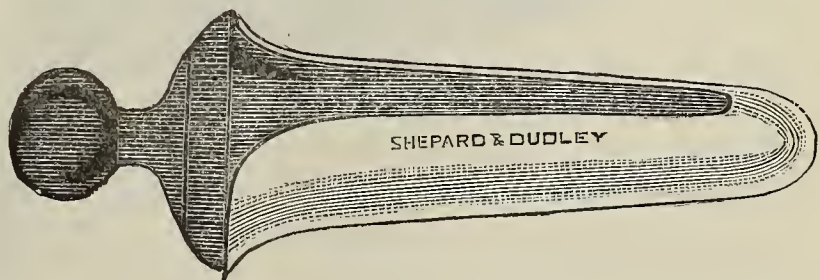


FIG. 3.

Though the instrument is usually fitted with a plug, as shown in Fig. 3, to

keep the mucous folds from engaging in the fenestrum until its introduction is complete, yet the finger will be found sufficient for the purpose. With this form also, the extent of surface that can be inspected at any one time is, of course, equal to the size of the opening, so that, to view the entire circumference of the rectal walls, the speculum must be rotated a complete circle. It has been suggested that the objection to this instrument, which permits the mucous membrane to fall into the tube and to cut off the light, might be overcome by fitting a movable glass slide or window in the fenestrum, as shown in Fig. 4.

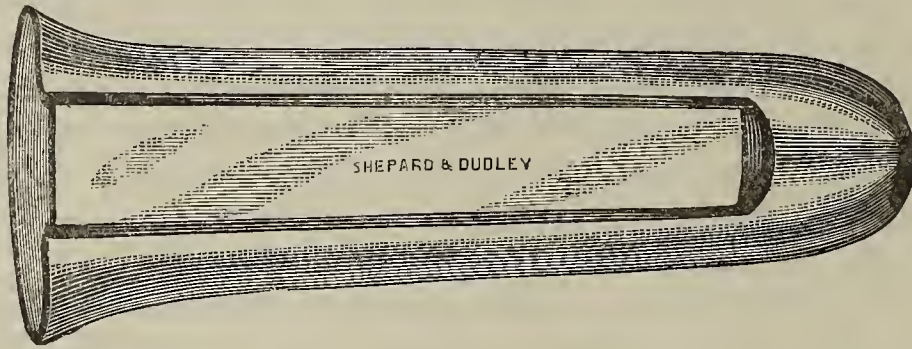


FIG. 4.

Sometimes the fenestrum is made to extend the length of the wall of the speculum, which is the one preferred by Ashton, and is usually designated by his name.

The second type includes those mechanical contrivances, which are furnished with arms or blades, variously connected and capable of expansion at will. They form when opened, as in the previous class, conical or cylindrical tubes, with fenestrated sides, of which the intervals vary in size and number according to the number of blades and the degree of their expansion. The mode of introducing the instrument is the same as in the former case, and when properly placed its blades may be opened to any desirable extent. The folds of mucous membrane, as in the tubular speculum, fall between the blades, but the fact, however, that with this instrument a much more extended surface is exposed to view, and the advantage in the way of easier manipulation, have brought this speculum into deserved esteem, so that in this country the cylindrical form is rarely used, or, at least, is restricted to special cases.

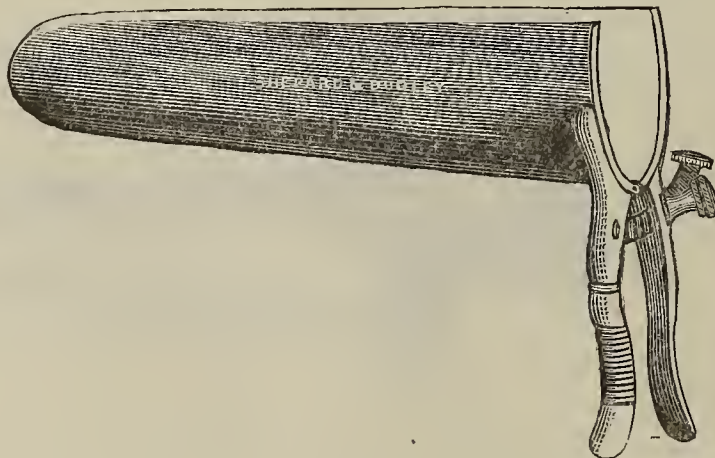


FIG. 5.

One of the earliest and simplest models of this class is the bivalve speculum, in which the blades are hinged together by their margins, as is shown in Fig. 5.

When opened, it displays a fenestrum the whole length of the instrument, which must be rotated to inspect the entire circuit of the bowel. The speculum in common use, however, is hinged at the base, and when expanded offers two fenestra. The hinge has either a fixed centre, causing the blades when open to form a cone, or the bases of the blades move upon a transverse bar, so that when the blades are open they assume a cylindrical form. The first kind is shown in Fig. 6. Other mechanical arrangements of the hinge have been re-

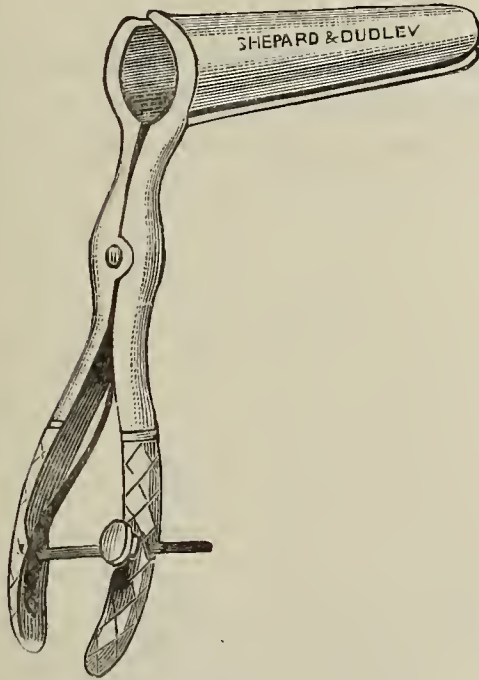


FIG. 6.

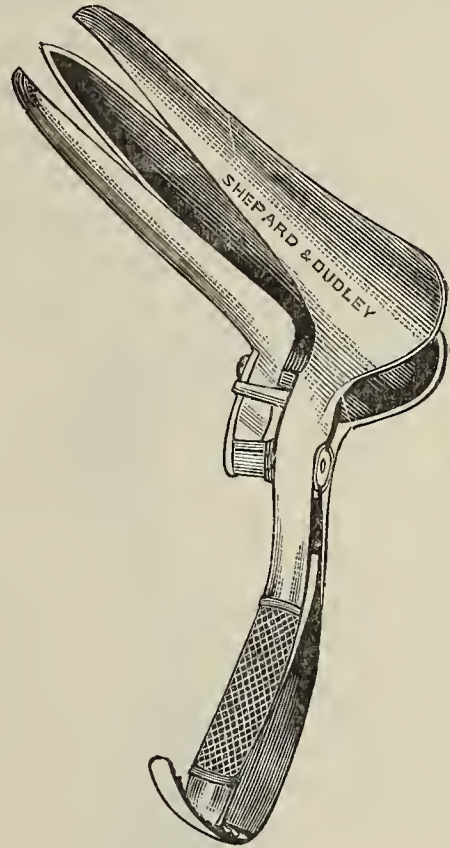


FIG. 7.

commended from time to time, with a view of enlarging the range of movement of the blades.

As folds of mucous membrane prolapse into the intervals of the blades of the bivalve speculum, and obstruct the view, a third blade has been introduced in certain of these instruments, as seen in Fig. 7, forming trivalve specula, which have undergone many unimportant modifications in the mechanism of the connection of the blades, and in other details of construction. A quadri-valve speculum has also been devised and commended by certain authors, Allingham among others. There are other special forms to which attention has

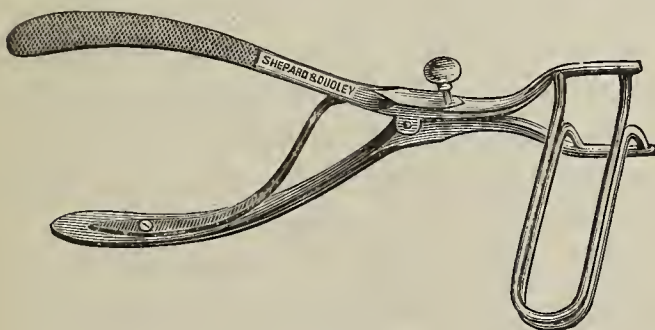


FIG. 8.

been called, as those with trellised blades, or with blades, variously fenestrated, but they are more ingenious than useful. In the construction of certain specula, bent wire is used as recommended by Davy, which, by its spring, is self-retaining. The best form of this instrument is, however, the one devised

by Sims, in which the wires are mounted on handles, as shown in Fig. 8.

Among the special means of inspecting the rectum may be enumerated the method so successfully employed by Sims in uterine exploration, and the endoscope. In the former case, the patient is made to assume a position on his knees and elbows or chest, so that the pelvis is on a higher plane than the rest of the body; the weight of the viscera is thus transferred from the pelvis and perinæum, and distributed to the abdominal walls and diaphragm. When the speculum is inserted, air rushes into the rectum and dilates the ampulla into a dome-like space, the walls of which can then be readily and successfully examined. For the purpose of raising the sacral segment of the perinæum, I am in the habit of employing one of the blades of Sims' instrument mounted on a handle as seen in Fig. 9.

The endoscope has been too much neglected in the exploration of the condition of the rectal mucous membrane. There are certain cases of ulceration located high up in the canal, in which no other means are feasible. I have fre-

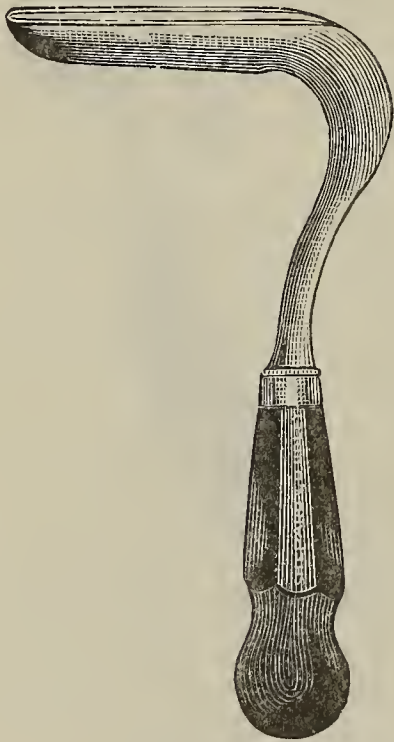


FIG. 9.

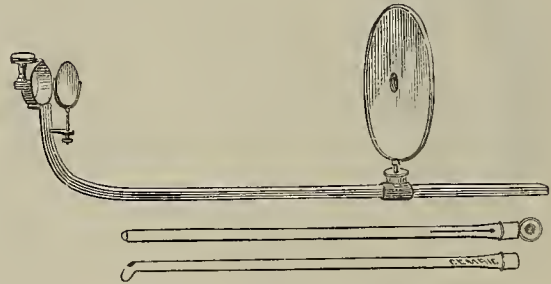


FIG. 10.

quently been enabled by this instrument, both to locate the diseased part, and to make direct application to it. The simplest endoscope is the one devised by me several years ago, which consists of a large concave mirror and a tube attached to a curved metallic bar, as is shown in Fig. 10.

With a knowledge of the anatomy of the rectal curves, and careful manipulation, a straight tube, fifteen millimetres in diameter, may generally be introduced to a depth of twenty-five centimetres, and the mucous membrane from this point downwards clearly seen by slowly withdrawing the tube. Any diseased section may then be directly medicated as desired with a brush fastened to a long handle and passed through the tube. I have recently treated in this way a number of patients with rectal ulceration and contraction resulting from attacks of chronic diarrhoea and dysentery, who have been much benefited.

The appearance of the normal mucous membrane, as seen at the extremity of the tube, is that of an umbilicated protuberance, smooth and of a rosy hue. The depression in the centre corresponds with the centre of the bowel, and while the tube is being gently withdrawn, the surface appears to be in motion from the circumference towards the centre.

In inflammation, the surface offers a strikingly different aspect; in chronic cases, for instance, it presents a deep red papillated condition, with prominent vessels at various points; sometimes the appearance is similar to that observed in pharyngitis sicca; that is to say, it is covered with minute papillæ, and the distortion of the epithelium covering them gives rise to a peculiar silvery shimmer; the membrane appears drier and thinner than normal, and at points, arterial trunks are plainly apparent. There is, as connected with this condition, more or less condensation and contraction of the sub-mucous connective tissues of variable extent. The bowels are persistently deranged; sometimes there is diarrhoea, at others constipation, especially when the patient has been exposed to cold or dampness. This form of disease I have observed in several cases, most of which were females.

In using the endoscope, the lateral position is as convenient as any other; the thighs should be drawn up with the buttocks resting on the edge of the table; a lamp or other source of artificial light is so placed that it may be reflected by the mirror in the desired direction.

Efforts have been made to draw the mucous tunic to the exterior for inspection. This may be partially done by introducing an india-rubber sac and inflating it largely, and then suddenly withdrawing it so as to evert the membrane. Storer has effected the same result with the fingers introduced into the vagina, pressing it backwards and downwards over the sphincter ani; the rectum may thus be everted through the sphincter like the finger of a glove. This can ordinarily be done to a very great degree; and it can always be done to a certain extent. Should the sphincter be unusually irritable, and contract with violence when touched from below or above, it may be forcibly distended by the thumbs, and temporarily ruptured, as he has been in the habit of doing in such cases; the procedure above indicated then becomes easy. He says: "We can in this manner ascertain the presence of a chancre or chancroid, the character of polypi, the extent and number of internal hæmorrhoids, the position of the inner orifice in fistula, etc., with far greater certainty and alacrity than by the speculum, or can be done in the male, while the mere eversion process, provided rupture of the sphincter is not necessary, is attended by very little pain."

These procedures are more or less painful, totally inefficient for exposing the upper part of the rectum, and for other obvious reasons inapplicable in the great majority of cases.

Up to a comparatively recent period, the range of rectal palpation was restricted to such exploration as could be made with one or more fingers. Von Nussbaum first, in 1865, and Maunder, in 1868, demonstrated the practicability of introducing the whole hand into the rectum; still, the credit of showing its practical value in diagnosis is due to Simon, of Heidelberg, who, in 1872, published the results of his experience. Since that period much light has been

thrown on the subject, yet much still remains to be done in the way of experiment and observation to enable us to justly appreciate its advantages, and to fully estimate its dangers.

It will be shown that the gravity of the procedure depends upon the depth to which the hand is thrust in making the examination, or, to state the case more correctly, whether its broadest part is simply carried up to the point where the peritonæum is reflected upon the rectum, or is pushed beyond this. Of course, the size of the hand will also come in as an element of danger when it exceeds certain dimensions, say twenty-five centimetres in its greatest circumference. Inside of this measurement, those cases that can be brought within the scope of this method are examinable.

Simon says that there is only room in the lower part of the rectum for the hand; in its upper part, and in the sigmoid flexure, two, seldom four, fingers may be introduced. On account of the mobility of this higher segment of the intestinal canal, however, he has been enabled to reach two or three centimetres above the umbilicus, but never to the ensiform cartilage. He performed experiments upon the male cadaver to ascertain the distance to which the hand could be thrust without rupturing the tissues of the bowel, and found, in one case, that, without exerting any force, four fingers could be introduced into the upper part of the sigmoid flexure. However, by using a certain degree of force, his hand, twenty centimetres in circumference, could be pressed to a greater depth, so that the ensiform cartilage might be touched; inspection showed that under these circumstances all three tunics were torn through at several places. The same experiment was tried on a female cadaver with a similar result.

The rectums of several cadavers were also removed, slit open and spread out with a strain just within the rupturing range. He then found that the width of the gut, at 14 to 15 centimetres from the anus, was from 20 to 25 centimetres; at the part where the meso-rectum begins, it decreased to 14 or 15 centimetres, and he therefore concluded that, as small and middle-sized hands ranged from 20 to 25 centimetres, any attempt to pass above this point must rupture the bowel.

By following this rule in twenty-five or thirty cases of manual palpation in the living subject, no trouble resulted, not even incontinence, but simply a sluggishness of the sphincter enduring twenty-four hours. In those cases where rupture of the anus was unavoidable, he preferred to notch the margin at several points, and if this did not suffice, to make a median incision towards the coccyx, for the reason that incisions after careful suturing heal quicker than ruptures. Narrowing of the outlet of the pelvis is the only obstacle that precludes manual palpation, but the range of cases will diminish with the increase in the size of the hand.

Walsham confirmed these statements of Simon, after having performed a series of experiments upon twelve cadavers, and conducted the examination in four living subjects. The experiments were made with a hand  $19\frac{1}{2}$  centimetres at its widest part, and after the conclusion of the examination careful dissection was made in all cases. No rupture of the sphincter, or other disturbance of the

cellular or vascular connections of the rectum could be discerned; in the majority of cases, not even the integumentary folds immediately surrounding the anus were torn, although considerable force was used in many instances. In one case, the abdomen was open and the hand was seen occupying the sigmoid flexure, and, by a little manipulation with the other hand it was passed into the lower part of the descending colon without rupturing the peritonæum. In three other experiments, it was arrested a little above the junction of the upper with the middle third of the rectum, by a narrowing of the gut, where the peritonæum is reflected from the walls of the pelvis to the bowel. In five cases, the hand was introduced beyond the junction of the upper with the middle third. In the remaining cases, the gut became suddenly smaller where it receives its complete covering of peritonæum, and the hand could not be passed further without considerable force, and with rupture of the peritoneal coat of the gut. The highest point he was enabled to reach was the lower end of the kidney and the cartilage of the last rib, but the movability of the bowel admitted of every part above the brim of the pelvis being examined.

In the following cases the examination was conducted on living subjects, and the results do not show that rectal surgery has, as yet, gained largely by the introduction of the manual method of palpation :

1st case (Walsham). A large powerful man, suspected of having a stone in the kidney, or some tuberculous affection of the genito-urinary mucous membrane. The hand was carried into the sigmoid flexure; operation lasted twenty minutes; patient under chloroform. There was no incontinence of feces, no rupture of the sphincter or integumentary folds around the anus; there was only a feeling of slight soreness about the anus a few hours after the operation. The diagnosis was negative. The man was discharged from the hospital.

2d case (Walsham). A woman suspected to have intestinal obstruction; chloroform given. In reaching the upper part of the gut the hand was arrested by a slight contraction in front of the peritoneal reflection, through which the fingers only could be passed. No inconvenience resulted; the diagnosis failed. The woman died twelve days later, and at the post-mortem examination a small epitheliomatous stricture was found in the upper part of the sigmoid flexure.

3d case (Walsham). A woman suffering from intestinal obstruction of a doubtful nature. Hand passed into the sigmoid flexure, as the arm nearly up to the elbow was within the sphincter. No bad effects followed this operation, although the hand was withdrawn and reintroduced several times; the sphincter was not ruptured, and there was no incontinence. She died eleven days after, but no post mortem was obtained. Diagnosis negative; though the reporter of the case remarks that he "could safely affirm that in this patient no stricture of the rectum or sigmoid flexure existed."

4th case (Walsham). Suspected to be stricture. The hand was prevented by the narrowing of the upper part of the rectum from reaching far enough, and no stricture could be discerned. A slight thickening, however, of what seemed to be a neighboring part of the intestinal wall was detected by the hand, though no opinion could be given of its nature. No rupture of the sphincter. Patient

much exhausted before the operation ; died the same evening ; and at the post mortem a small stricture near the commencement of the sigmoid flexure was discovered. Before the parts were disturbed, an effort was made to reach the stricture by a force nearly sufficient to rupture the gut, but without avail, by reason of the narrowing at the point of reflection of the peritonæum, the fingers being fully six inches from the disease. The thickening felt was the stricture, which had come within reach by reason of the sinking of the sigmoid flexure into the pelvis.

5th case (Dandridge). A man with obscure disease of the abdomen ; hand (21 centimetres in circumference) was carried only far enough into the rectum to reach, with the tips of the fingers, the bifurcation of the aorta. Diagnosis not made. The man died ten days later. Autopsy : peritonitis ; caries of the 4th and 5th lumbar and upper sacral vertebræ, over which there was an abscess that had reached the groin ; rent five centimetres long in anterior wall of the rectum, of peritoneal coat only, thirteen centimetres from the anus ; two large abscesses in the lateral and posterior wall of the rectum at the level of rent.

6th case (Dandridge). Aneurism of cœliac axis ; pulsation could be felt by hand in the rectum. Death twenty hours later. No rent in the bowel ; the aneurism was ruptured ; blood effused behind the peritoneum ; there were reasons to suppose it had occurred some time before the operation.

7th case (Dandridge). A man suspected of renal tumor. There were symptoms of slight peritonitis, which, however, disappeared, and the man died some time afterwards from the original disease. At the autopsy there was no evidence of any damage to the bowel ; if there had been, it had entirely disappeared.

8th case (Dandridge). A woman twenty years of age. She complained of an ill-defined fullness, and enlargement of the left iliac fossa, and, to determine the character and locality of this, the examination was instituted. The results proved that the fossa was normal, and the condition suspected from the external manipulation did not exist. In about a day there was slight incontinence of feces ; this passed away, and no bad symptoms of any kind followed.

9th case (Wales). Woman ; intussusception. Hand (23 centimetres) was passed into the rectum, and arrested at the peritoneal reflection, so that the fingers entered only the sigmoid flexure. Diagnosis not made by this means ; no rupture of sphincter ; death same day ; no autopsy.

10th case (Wales). Man ; suspected stricture. Introduced hand (23 centimetres) thirty-seven centimetres. Diagnosis negative ; no rupture of sphincter ; slight incontinence, lasting three or four days ; case passed from under observation.

11th case (Weir). A woman ; obstruction of bowels. The hand (23½ centimetres) could not be carried beyond the upper rectal pouch. Diagnosis not made ; death twenty-four hours afterwards ; autopsy revealed cancerous disease of the flexure of the colon, so slightly perceptible externally as scarcely to be recognized ; no injury done to the rectum by manual exploration. The point of obstruction was fifty-eight centimetres from the anus.

12th case (Leale). The hand (20 centimetres in circumference) was intro-



duced  $40\frac{1}{2}$  centimetres with safety, so that the inferior margin of the liver was recognized, and the fingers could be felt four inches above the umbilicus.

13th case (Sabine). The hand (19 centimetres in circumference) penetrated to a depth of twenty-eight centimetres, to examine a renal tumor. The patient died four days later, and the autopsy revealed ecchymoses on the anterior wall of the upper third of the rectum, which had resulted from slight lacerations of the muscular coat; the peritoneal and mucous layers were intact.

14th case (Sands). The hand (less than 19 centimetres) had penetrated to a distance of thirty centimetres, the forearm appearing too large to pass any further into the anus. There was a laceration of the muscular coat twenty centimetres from the anus, while the other coats remained undamaged.

15th case (Weir). The highest point reached was 28 centimetres (hand 19 centimetres); both the muscular and peritoneal layers were ruptured.

16th case (Briddon). An instance in which the introduction of the hand caused the rupture of a splenic tumor, followed by extravasation and death; the size of the hand and the depth to which introduced are not mentioned.

17th case (Maunder). A young woman with atresia vaginæ; it was important to determine the presence or absence of a uterus, as well as the possibility of reaching artificially that organ in the course of the vagina. The hand, size not stated, was introduced into the rectum. The absence of the uterus was determined, and, with the left hand in the rectum and the right hand upon the anterior wall, the pelvis was explored with facility. The sphincter was slightly ruptured.

18th case (Maunder). An old woman, seventy years. Complete intestinal obstruction. Diagnosis completed.

19th case (Batteson). Woman, 33 years old; intestinal obstruction; hand (size not stated) passed to the sigmoid flexure. Stricture was felt, and two fingers (medius and ring) passed through it. On these, as a guide, the œsophageal tube was passed, and a large injection administered, which brought away a large amount of feces. Death three hours later. Autopsy: a pint of fluid was found in the peritoneal cavity, most of which had probably escaped from the bowel, through an ulcerated aperture seated at the stricture. The small intestines were much distended, the larger ones empty, and both were much congested.

20th case (Heslop). A young woman; intestinal obstruction. Heslop observes that this case resulted as case 10, and there was shown at the autopsy, in addition to the changes noted, *laceration of the rectal walls*.

From the above showing it will appear that the hand can be introduced much more easily, and with less damage to the soft parts, in the cadaver than in the living subject. In the twelve cases mentioned the hand was stated to have been carried once only into the descending colon, as observed by direct inspection. In the majority of the remaining cases it was arrested at the point of peritoneal reflection, and could not be advanced further without tearing the surrounding tissues. The highest point reached was the lower end of the kidney and the cartilage of the last rib.

Of the twenty living subjects noted above, in which the manœuvre was executed, the depth to which the hand was thrust is not stated in five cases; in the remaining fifteen it was arrested at the peritoneal reflexion in six, and in nine this point was passed, in one to a depth of forty and a half centimetres. In five of the nine cases the bowel was either lacerated, or tumors that happened to exist were ruptured. The diagnostic result of the examination in five cases of the twenty is not stated; in the remaining fifteen the diagnosis was negative in eight, failed altogether in four, and was clearly made out in three.

The patient should always be placed under the full influence of an anæsthetic, and the insertion of the hand accomplished with extreme caution and deliberation. The best position for the patient is on the side; the hand ought not to exceed in circumference twenty-five centimetres at its widest part, nor, in other than exceptional cases, be thrust deeper than the point where the narrow part of the gut, at the level of the reflected fold of the peritonæum, will correspond with the knuckles, a distance of about fourteen centimetres from the anus. This may be called the limit of safety, although it has been considerably exceeded, as shown above, with impunity, while, on the other hand, severe injury, and even death has resulted at and even within this limit.

The danger arises from laceration of the intestinal walls and the peritoneal fold, from rupture of the hæmorrhoidal, vesical, and uterine arteries, and occasionally from severe shock. The operator will have to decide, in each individual case, the extent to which the exploration may be safely carried. When the hand reaches the narrow part of the gut, and the resistance cannot be overcome with gentle pressure, he should desist; the sensation of resistance is different from that of muscular contraction, which the fingers feel in the living subject as the hand forces its way along the bowel.

It must not be overlooked that in this manœuvre keeping in the right track is sometimes a task of exceedingly difficult execution, from the folds of the bowels entangling the fingers, and even when the way has been successfully threaded to the highest point, the fingers are so constrained by the grasp of the muscular tube that surrounding objects cannot be clasped between them, but only their surfaces can be passed over and pressed upon to determine their nature. In children the narrowness of the pelvic outlet restricts palpation to the use of one, or, at most, two fingers. In some cases of adults the outlet is also so narrow that the hand cannot be passed. Women furnish the most favorable conditions for exploration.

In morbid conditions of the rectum and sigmoid flexure recourse may be sometimes advantageously had to certain instrumental aid. Bougies are chiefly used as explorers, but there are numerous special contrivances designed with this view. Sir Charles Bell devised an explorer, consisting of an ivory ball mounted upon a brass rod, which, although occasionally met with in the shops, is but rarely used. Allingham employs vulcanite balls of different sizes, fastened on pewter stems with flattened handles. Others have recourse to slender and flexible rods of whalebone, tipped with globular, conical, or olivary points of ivory, caoutchouc or other similar hard and polished substances. Handled with skill, the rubber rectal bougie, devised by myself several years ago, furnishes

all the information that can possibly be obtained by an explorer, and at the same time is the least likely to inflict any damage, or to mislead the operator by catching at the sacro-vertebral promontory, or in the folds of the mucous membrane.

The depth to which a bougie may be introduced varies in different cases. O'Beirne entertained the belief that it never passed beyond the sigmoid flexure. Rilliet considered that he had furnished experimental proof of this from his observations upon the cadavers of children.\* Cadge made similar experiments, and concluded that the bougie never penetrates into the descending colon.† Simon accorded with these statements fully, after thorough examination of the subject.‡ Wachmuth, on the other hand, claimed to have been able in some cases to reach a depth of 166 or 196 centimetres. Storer reported cases in which he believed he had reached the cœcum, after five feet (151 centimetres) of a bougie had passed into the anus. I have rarely failed to pass it through the sigmoid flexure to near the termination of the descending colon, and, on the cadaver, have often demonstrated the practicability of penetrating beyond this point. The difficulty arises from the meso-colon fastening the lower end of the descending colon almost immovably in the lumbar region, while the sigmoid flexure from this point curves sharply to the right before plunging into the pelvis. When the bougie attains a depth of forty centimetres its point can be felt in the neighborhood of the umbilicus (especially if the flexure, as sometimes happens, is unusually long and mobile), far away from the locality where the flexure merges into the descending colon. The bougie has, in fact, stretched the sigmoid curve upwards and to the right, thus rendering the angle it makes with the colon sharper and altogether impassable. In order to arrive at this angle with the bougie, it is necessary to depress its point into the left lumbar region by one hand applied externally to the abdomen, while using the other hand to propel the instrument.

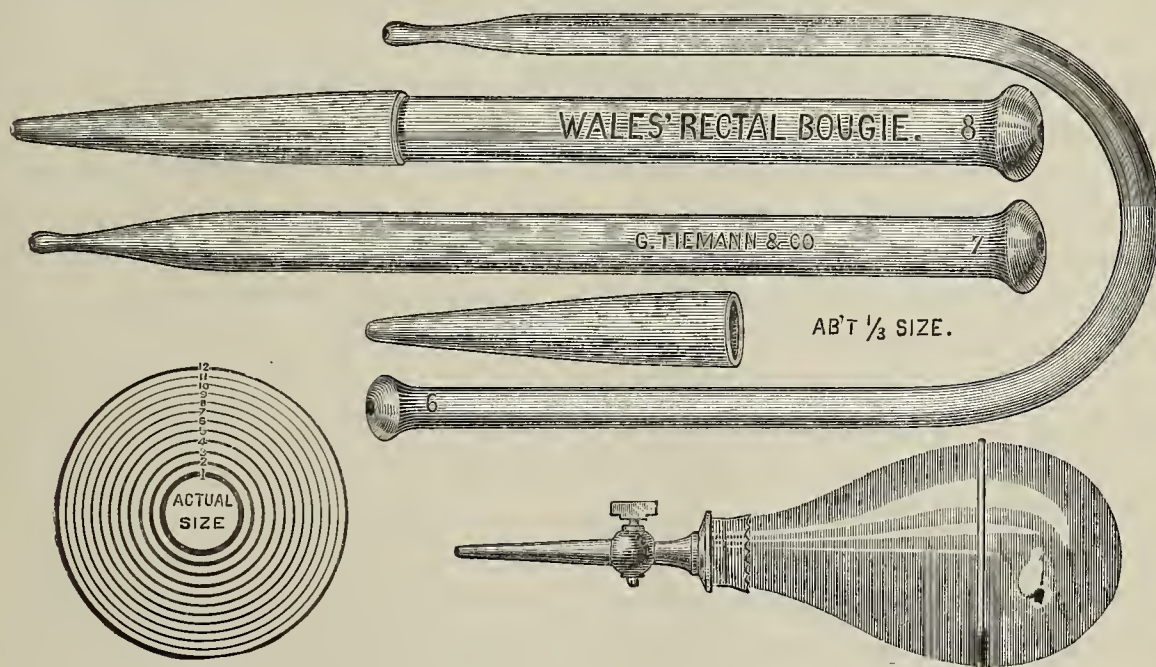


FIG. 11.

\* *Gazette des Hopitaux*, 1852.† *British Med. Jour.*‡ *Virchow, Archiv.*, Bd. XXXIII., 1862.

In the use of bougies, much will depend upon the delicacy of the touch of the operator in obtaining trustworthy information; there is a peculiar sensation of resistance, for instance, experienced when it passes through an obstruction; while in being withdrawn, it slips as if released suddenly from the grasp of a constriction.

The elastic bougie may be converted into another instrument of considerable diagnostic value, as is shown in Fig. 11, by slipping a close-fitting hood of rubber, ten centimetres long, over its point, and securing it with a thread. The instrument thus prepared should be well coated with a stiff grease, as cosmoline, which I find answers better than sweet oil in facilitating the gliding of the instrument along the gut. When its point reaches as far as may be deemed necessary, a syringe is attached to its proximal end, and the rubber hood distended with water or air into a ball an inch or more in diameter. Gentle traction is then to be made, which will cause the ball to move slowly along the bowel, and, if no obstacle is present, the ball will soon emerge from the anus; while, on the contrary, it will be arrested by any narrowing or obstruction. Spasmodic contraction may have a like effect, but this can be easily distinguished from that of a permanent stricture by keeping up the traction a few moments, until the muscular spasm relaxes, when the ball will again slip along. In cases of organic narrowing, its amount can be approximately determined by maintaining traction upon the explorer, while the water flows out in a gentle stream, until the ball is reduced in size to the diameter of the stricture, when it will pass through. The height of the stricture may be determined at the same time, by deducting the length of the bougie projecting from the anus from its total length.

On one occasion I confirmed the indication of the bougie by noting the quantity of water the gut would hold before it overflowed the margin of the anus. Injections with the same object were long ago used by Amussat and Monroe, but are not now relied upon as a trustworthy guide in diagnosis, especially when the obstruction is located beyond the sigmoid flexure. The capacity of the intestine is influenced by several contingent circumstances, among which may be enumerated its varying degree of extensibility, the amount of intra-abdominal pressure, the quantity of gaseous and solid matter that may be present, and the position of the patient. In simple constriction the indication, for evident reasons, would be fallacious. Brunton has, however, given the following rule for the water test: "If 500 cubic centimetres of liquid can be injected, the obstruction cannot be lower than the upper end of the rectum; if 1,500 cubic centimetres can be injected, it cannot be lower than the upper end of the sigmoid flexure. In a case of occlusion of the ascending colon, four and a half litres were injected."

It may be necessary, in certain cases, to have recourse to anæsthetics during the physical examination of the rectum, especially in those painful conditions dependent upon ulceration and fissure. Columbat long since recommended the preliminary use of suppositories of opium and belladonna an hour or two before the examination. I am in the habit of using ether and the bromide of ethyl. The examination for the discovery of the disease, and the operation for its re-

lief, may often be simultaneously performed, thus dispensing with the inconvenience of administering the anæsthetic twice, and relieving the mind of timorous patients of the anxiety attending delay after the case has been fully made out.

It is important, before undertaking any operation, to inquire into the condition of the liver and kidneys, as chronic disease of these viscera must have an important influence upon the propriety of surgical interference, and the chances of subsequent recovery. Too much stress cannot be laid upon a thorough course of preliminary dieting, which should be strictly adhered to for some days subsequent to the operation. The food best adapted to these cases is milk, or light animal and vegetable soups, and total abstinence from alcoholic indulgence should be enforced.

ARTICLE II.—SEQUELS OF NASO-PHARYNGEAL AND AURAL CATARRH, ILLUSTRATED BY CASES FROM PRIVATE PRACTICE. By J. G. CARPENTER, M.D., of Stanford, Ky. Read before the American Rhinological Association, at St. Louis, October, 1883.

It is difficult to get the general practitioner to attach much importance to diseases of the upper air passages. They consider them local, and not capable of producing constitutional manifestations, and will tell a patient his catarrh does not amount to much, it will never kill him; to take out-door exercise, eat nutritious food, and sleep eight hours out of every twenty-four, and then laugh at patients for having acquired great irritability, melancholia, or tinnitus aurium from having catarrh, and will jocularly remark: You are hysterical; or are malingering. What absurdity. How irrational are these remarks to an intelligent and honest sufferer, whose only desire and prayer are relief and cure. I know no more troublesome affection than naso-pharyngeal and aural catarrh to the patient. Catarrh was, a few years ago, considered incurable; but now the light is dawning, and cure after cure is being made, though it will take the profession at large many years yet to realize what catarrh is, its etiology, prophylaxis, the best therapeutic measures, and its sequels. The sequelæ of naso-pharyngeal catarrh are reflex cough, sneezing, stenosis of nasal cavities, ocular catarrh, asthenopia, aural catarrh, headache, either occipital or frontal; nasal polypi, tonsillitis, enlarged tonsils, patulency of Eustachian tubes; hæmorrhage from the throat, either the naso-pharynx, larynx, or trachea; laryngitis, tracheitis, bronchitis, and catarrhal phthisis; epistaxis, neuralgia, or numbness of the limbs or trunk; anæsthesia or hyperæsthesia of the skin, dyspepsia, hay fever, paresis of arm and forearm; irritability, melancholia, partial loss of memory or intellectual faculty, insomnia, frightful dreams, agoraphobia; hypertrophy of the anterior cervical, sub-maxillary, sub-lingual and post-cervical glands; vertigo, palpitation of heart, neurasthenia. It is quite common for a patient to have reflex cough, the sensation produced or point of irritation being apparently in the larynx, when it is in the naso-pharynx. Have had patients to sneeze from ten to twenty times in succession from introducing the speculum into the anterior nares, or meatus auditorius externus. Ocular catarrh and asthma often attend naso-pharyngeal

catarrh, and yield to treatment. Of the latter, frontal or occipital headache, irritability of temper, melancholia, partial loss of memory or the intellectual faculty, palpitation of the heart, attacks of asthma, insomnia and frightful dreams, one or more of these exist in naso-pharyngeal catarrh, and are only temporarily relieved by nervines or soporifics, unless special treatment is given the catarrh, when they permanently subside.

Naso-pharyngeal catarrh produces aural catarrh, with deafness and tinnitus aurium, and generally precedes by many months acute catarrh of the middle ear. It is held by some authors that tonsilitis and enlarged tonsils (especially Rumbold), are the sequence of chronic catarrh of the upper air passages, and my experience confirms this view fully. It often occurs to specialists of the nose, throat and ear, to meet with patients in whom œdema of the glottis, laryngitis, bronchitis and acute catarrhal phthisis, have had their origin in the naso-pharynx. Epistaxis, or hæmorrhage of the pharynx, larynx or trachea, has often been considered by the general practitioner to come from the lungs, when really the lungs are sound, and sufficient disease exists in the above regions to account for it, and could be readily ascertained if a laryngoscopic or rhinoscopic examination were made. Neuralgia in one or more regions of the body, anæsthesia or hyperæsthesia of the skin, dyspepsia, hay-fever, vertigo, and paresis of the arm and forearm, have yielded to treatment of the naso-pharyngeal catarrh; and partial aphonia has attended catarrh in some of my patients affected with severe naso-pharyngeal catarrh, and disappeared gradually as the catarrh improved.

June, 1877. A. H., age 8 years, blonde, has naso-pharyngeal catarrh, with hypertrophied tonsils and anterior and post-cervical glands, and frontal headache. Was treated every day for five days, every other day for two weeks, twice a week for three weeks, and once a week for three weeks. In two weeks from date of treatment the enlarged tonsils and cervical glands returned to normal size. Headache was a constant attendant of the naso-pharyngeal catarrh, and yielded to about twenty treatments. The case convalesced rapidly. In six months not a vestige of disease could be found. Six years have elapsed since treatment, and the patient has been free from disease all the time. The sequels in this case were enlarged tonsils, anterior and post-cervical glands, and headache.

Helen S., age 10 years, has had naso-pharyngeal catarrh two years, and had Eustachian catarrh with deafness to follow the former. Is a blonde, has good family history, has reflex cough, enlarged tonsils, and recurrent earache and frontal headache. In damp weather has asthma, and D. A. H., 12 inches; S. A. H., 24 inches. Tuning-fork is heard best in right ear; the right membrana tympani is slightly opaque and without polish. Patient was treated every day for seven days, every other day for two weeks, twice a week for three weeks, and once a week for four weeks. The Eustachian tubes were inflated with Rumbold's warm spray producer. I do not like it as a spray producer, but as an inflater of the middle ear it has no superior. It has in every respect accomplished as much in my hands as the Politzer or Gruber methods, and in a shorter time. This instrument warms and compresses the air, also medicates it

if you desire it. (Fig.) Hearing is 48-48 in each ear. Right membrana tympani normal. The headache, enlarged tonsils, hoarseness, asthma and cough subsided in about two weeks after patient began treatment. At the end of six



months no sign of disease was present. It has now been eighteen months since the patient was dismissed, and the disease has not returned.

1881. Mr. L., age about 40 years, good family history, has naso-pharyngeal catarrh, with reflex cough, dyspepsia, and has had one or two attacks of hæmorrhage from the throat. He was treated for his catarrh every day for ten days, then every other day for two weeks, then twice a week for two weeks; the cough and dyspepsia ceased in two weeks. It has been eighteen months since treatment was discontinued, and no hæmorrhage of throat has returned. This patient was pronounced by several physicians in the first stage of consumption, though his lungs were sound. There was sufficient disease in the throat to account for all the hæmorrhage.

Mrs. C., age 55 years, has naso-pharyngeal catarrh; has had two hæmorrhages from the throat; the lungs are sound, but she was pronounced by several doctors to have phthisis. Strange to say, the lungs were not examined in either case, neither was a laryngoscopic nor rhinoscopic examination made.

It has been verified time and again that nasal polypi will disappear while treating a naso-pharyngeal catarrh, without any special treatment being given them.

Mr. T., age 25 years, has naso-pharyngeal catarrh and aural catarrh, with tinnitus aurium and deafness, acquired irritability of temper, melancholia,

partial loss of memory, inability to think any length of time on one subject; has either frontal or occipital headache all the time; has insomnia, agoraphobia and anæsthesia of the skin; has ocular catarrh and asthenopia and neuralgia in different parts of the body. Tuning-fork heard best in left ear; drumheads slightly opaque and without polish. Hearing S. A., 6 inches; D. A., 18 inches. This is a case of extreme neuræsthesia. Patient has been, on account of the above conditions, tempted to commit suicide. December 1st, 1882, patient began treatment by being treated for fifteen days, then every other day for three weeks, then twice a week for four weeks, then once a week for eight weeks (Rumbold's method). The Eustachian tubes were inflated with Rumbold's warm spray producer or inflater. In connection with the above treatment, about thirty séances of electricity were given, though he did not begin it for a month after the catarrh treatment was begun. The above sequels improved or subsided *pari passu* as the catarrh improved. In May, 1883, the treatment of catarrh was discontinued. Patient considers himself well, though he will not be for at least a year yet. It will take the lining membrane thus long to return to its natural state, and patient should take a few treatments this fall or next spring.

May, 1883. Mrs. L. has naso-pharyngeal catarrh, attended with asthma, frontal or occipital headache, acquired irritability of temper, mental depression, and reflex cough; was treated every day for seven days, then every other day for three weeks, then twice a week for three weeks, then once a week for four weeks. The asthma, cough, headache and mental affections subsided *pari passu* as the catarrh improved. Patient had asthma several times a week before being treated, and now, September 15th, considers herself well, and has had only one slight attack of asthma. This occurred a week after treatment began, and then she was caught in the rain, and her clothes saturated with water before arriving home.

One patient had had naso-pharyngeal catarrh fourteen years, had lost the sense of taste and smell both, and had complete anæsthesia of the naso-pharynx. The sense of taste returned shortly after treatment began; the sense of smell and anæsthesia returned after many weeks' treatment. Mrs. N. has naso-pharyngeal catarrh, neuralgia and paresis of the left arm and forearm. Treatment was directed entirely to the catarrh, and as the latter improved so did the arm and forearm, though nothing was done to it, not even massage was resorted to.

S. W. G., age 61 years, has had for some time naso-pharyngeal and Eustachian catarrh, with tinnitus aurium, and deafness and dyspepsia. He was treated six months by a general practitioner for dyspepsia and torpid liver, though there was tickling and excessive secretions of mucus, or muco-pus, in the throat, and hawking and sneezing. The latter would occur from five to ten times in succession several times a day. There was also a partial loss of memory, impairment of the intellectual faculties, inability to think consecutively on one subject for any length of time; also inability to add correctly a few easy columns of figures, though patient was a fine business man. This physician told him all his ailment came from the *dyspepsia* and *torpid liver*. Treated him every day for seven days, then every other day for two weeks, then twice a week, then once a week



for four weeks. Rumbold's warm spray producer or inflater was used for the deafness and aural catarrh. I did nothing for his dyspepsia, only treated his naso-pharyngeal and aural catarrh. At the end of treatment his hearing was 48-48 in both ears. When treatment was begun, audition was in D. A., 6 inches; in S. A., 19 inches; all his ailments just enumerated had disappeared, and patient considers himself well, though the lining of nose and throat has not returned entirely to its natural state.

It seems incredible that a general practitioner would make such mistakes as have been presented in this paper. It shows plainly that they know very little about diseases of the nose, throat and ear, and are the first men in the profession to tell patients their complaints are all a myth, it will not kill them; or they are hysterical; and are certain to tell a patient to keep out of reach of the specialist, as the latter would probably do you an injury, and, besides, charge a large bill.

May, 1881. Mrs. C. has had chronic naso-pharyngeal catarrh; had a sub-acute attack, which resulted in patulency of the Eustachian tubes, and autophony with bulging of the membrana tympani of left ear. About ten treatments were given the catarrh. The first three treatments would close the orifice of the Eustachian tube a few hours, when it would return; after the fourth treatment the patulency, bulging of the drumhead and autophony never returned. Patient took six more treatments; considered herself well. "Patient remarks she swallowed her words or voice in talking, and that her voice went to her left ear." On inflation of the Eustachian tube, the drumhead would be seen to bulge, and a hissing, clicking, or crepitant sound would be heard with the aural diagnostic tube. Politzer method was used.

Mr. J. G., age 58 years, has naso-pharyngeal catarrh with patulency of the left Eustachian tube, and autophony and deafness in both ears; hearing D. A., 12 inches; S. A. E. of H. The clicking or crepitant sound was heard with the auscultating tube, and flattening and bulging of the drumhead seen auroscopically on inflation. Treatment was directed to the catarrh. The patulency and autophony subsided after second application. Hearing improved 24-48 in right ear; 19-48 in left ear.

October, 1882. Professor N. has naso-pharyngeal and aural catarrh, deafness and tinnitus aurium in both ears. Hearing in left ear 18 inches, in right one, watch on contact. Has patulency of right Eustachian tube, and autophony; drumhead bulging on auroscopic examination. On auscultation, the peculiar noise in the middle ear is heard during inflation. A few treatments to the naso-pharynx and inflation of the ears with Rumbold's instrument soon relieved the patulency and deafness. Rumbold is the only author who has described patency of the Eustachian tubes, and I have only seen a few cases in my practice.

J. B., age 10 years, has naso-pharyngeal and aural catarrh and perforation of left drum-head and deafness; has also catarrhal conjunctivitis. The treatment was directed to the nose, throat and ears. Nothing was done for the eyes except cleansing in salt in water. As the naso-pharyngeal catarrh improved, so did the eye affection.

James S., age 7 years, has had for some time naso-pharyngeal catarrh and

catarrhal conjunctivitis. The nose and throat received special attention. The eyes were kept clean with salt in water. As the naso-pharyngeal catarrh improved, so did the eye affection.

James S., age 7 years, has naso-pharyngeal catarrh and catarrhal conjunctivitis. The nose and throat received special attention; the eyes were kept cleansed with salt in water. Improvement and cure of the eyes followed the improvement of naso-pharyngeal catarrh.

Mr. S. S. has had catarrh of nose and throat for about six years, and aural catarrh in both ears for two years. Hearing, D. A., nil; S. A., 18-48. Drumheads opaque, and without polish; slightly flattened. The tuning-fork cannot even be heard in right ear; the tone conduction is entirely suspended. Twelve treatments of the naso-pharynx with Rumbold's inflater restored the hearing to normal in both ears; the hearing in left ear was normal after six treatments.

Mrs. S., age 40 years, has naso-pharyngeal disease, and has had reflex cough and vomiting one or more times a day for several days.

Mr. U., age 28 years, has catarrh of naso-pharynx, and trouble attending it, for several weeks. Reflex cough and vomiting several times a day. Both of these patients had the catarrh treated, and nothing done for the sequels. As the former improved the latter subsided entirely.

Other cases could be presented, but these just noted will be sufficient to prove the importance of thoroughly understanding diseases of the nose, throat, and ear; and the day has come for the general practitioner to know and treat these affections as well as to know how to treat a fever, an inflammation, or accouche a woman. The laryngoscope, rhinoscope, auroscope, and the acou-otoscope will enable the general practitioner to learn all about the diseases of the nose, throat, and ears if he will only use diligence, be studious, and observe closely in practice.

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A DUTCH POISONER.—A married woman, called Van der Linden, aged 45, mother of three children, is in custody at Leyden, on a charge of having murdered sixteen persons within the past few years. Nearly all the victims were members of her family, whose lives she had insured in burial and life insurance companies, without their consent, with the intention of poisoning them, and receiving the money at their deaths. The crimes became known under the following circumstances: A family named Frankhuyzen, at Leyden, lost on one day the mother and a child of eight months. The father was also taken ill, and removed to a hospital. In each case there were symptoms of poisoning, and the examination of the bodies proved this to be the fact. It was ascertained that Mrs. Van der Linden came into the house of her relatives, and put poison in milk which was being made hot on the fire. After the death of the woman and her child, it was remembered that, during the last two or three years, a number of the members of the family had died under the same circumstances, and the bodies of two other children which had been exhumed showed traces of poison. A cousin of Mrs. Van der Linden, a soldier, whom she tried to poison fifteen months ago, is very ill, and Frankhuyzen is in great danger. The accused has confessed her guilt. Her husband is innocent. The prisoner has herself lost five children, and it is presumed that they have all been poisoned.

## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

THE HUMAN TAIL.—Virchow, in 1879, made a full review of this subject, and considered that sacral trichosis, in which a large tuft of hair is found at the sacral region, related thereto; this is all that at most represents the tail in the anthropoid apes. Virchow describes, at length, a well authenticated instance of a child who had a tail coiled up and movable at will. Virchow believes that tails are of more common occurrence in certain little-studied races of men than is the common belief. Embryologists have failed to find anything except the *chorda dorsalis* and atrophied remnants of the medullary tube in the caudal appendage, which all human embryos have at a certain period, and which, as Spitzka (*Chicago Medical Review*, 1880, p. 365) has pointed out, is not bent forward in the median plane, but twisted in an oblique spiral toward the right side. Such "human tails" as Virchow was able to examine contained no true vertebral elements but a central cord representing the *chorda dorsalis*. Evidently biased by the popular notions on the subject Dr. C. C. Sprague, Kinderhook, Ill., reports (*Medical Brief*, January, 1884) the following somewhat imperfectly detailed case of a healthy-looking and well-developed female child with all its parts normal and natural, with the exception of an abnormal growth at the lower extremity of the spinal column, giving this the appearance of an extension into a regular caudal appendage, measuring in length three inches, in circumference about four inches at its thickest part near the end, flattened and band-like at and near its attachment to the body of the child. This superfluous mass, fibro-cartilaginous in texture, was developed upon the dorsal surface of the coccyx, with a limited supply of nerve and bloodvessels, and in consequence exhibiting a livid color and low state of vitality at the nether extremity, upon which an abraded surface existed, which readily took on gangrenous features. This was removed, but does not appear to have been subjected to histological examination.

ABSCESS OF THE NECK.—In corroboration of the views advanced by Dr. Lidell (*Amer. Jour. of the Med. Sc.*), Dr. B. G. Long (*Buffalo Med. and Surg. Jour.*, Feb., 1884) cites the following case: A twelve-year-old girl of sound health and good family history, attended school regularly until the afternoon of December 17, 1883, when, on account of stiffness and soreness of the back of her neck, she remained at home. Dr. Harrington had his attention called to the condition of her neck, but little was thought of it, as she was working about the house and only slightly inconvenienced. Three days later he was called to see her, and found her neck, and especially the back of it, enormously swollen. It was very tender to the touch, and she was suffering severe pain. Pulse 112; temperature 101°.

Poultice applied and anodyne administered. She grew rapidly worse. The swelling became more circumscribed and harder on the back of the neck. Dr. Long was called in consultation December 22, when a hypodermic needle was introduced into the tumor, but no pus found. Cerebral symptoms were very marked at this time, and an unfavorable prognosis was given. The only motor neurotic symptom was a deviation of the tongue to the right side when protruded. Death occurred December 24, at 1.30 P.M. Autopsy twenty-two hours after death. Body moderately well nourished; rigor mortis marked; very great hypostatic congestion of back; a denuded surface on nape of neck where a blister had been applied. Nothing but marked congestion was found down to the spinous processes. Bulging from between the laminae of the second and third vertebræ, mostly on the right side, was a fluctuating tumor which contained about one and a half drachms of pus. On removing the arch of the second vertebra, the dura mater was found intact; opening into the sub-arachnoid space disclosed a very large amount of serous effusion, the result of meningitis, which was the immediate cause of death.

THERAPEUTIC MEANS OF AFFECTING LOCAL INFLAMMATORY PROCESSES.—Dr. C. B. Nancrede concludes (*Medical News*), as a result of his investigations on this subject: 1. During the stage of dilated arteries, with increased rapidity of the current, but little danger of capillary changes with exudation need be apprehended, and here perhaps ergot, certainly arterial sedatives, do good, either directly or indirectly, without blood-letting, by reducing the size and rapidity of the current, thus allowing the veins of the irritated area time to empty themselves, even of an unaccustomed amount of blood. Thus, if vascular-pressure changes have taken place, the vessels have an opportunity to return to the normal. 2. After stasis has occurred, or while it is occurring, weakening of the heart's action and a diminished volume of the current—*e. g.*, the effect of arterial sedatives—can do nothing but harm to the inflamed area, although it may prevent extension of inflammation in the circumjacent parts, which are merely in the earlier stages of congestion. 3. The results to be sought, and which are secured by local blood-letting, are removal of the blood on the venous side, so that the vessels cannot only empty themselves, but a certain amount of *vis-à-fronte*—*i. e.*, aspiration—is invoked; this secondarily results not only in a temporary return to the normal on the arterial side, but an increased rapidity (and here is an important point)—lessened force of the circulation. The acceleration of rate without the weakened force of the circulation would further damage the vessels, instead of which the increased rate of the current merely serves to sweep out the accumulated red-blood cells, the cause of the excess of oxygen, and the consequent cell-migration. The vehement current also induces a rapid resorption of the effused liquor sanguinis, at once the stimulator to growth, and the food of the cells. This latter advantage is not founded on theory alone, for

it is a matter of common observation that the mere amount of blood extracted produces no sensible effects on an inflamed breast, for instance, at first, but in a few hours, the skin, if carefully examined, has become wrinkled, and the organ shrunken. This effect is secondary to the loss of blood, and chiefly results from the absorption of the inflammatory exudate. 4. Arterial sedatives in the latter stages are usually inadmissible except as succedanea to blood-letting, as far as the focus of inflammation is concerned; the surrounding parts, which are merely congested, may be benefited by their exhibition. After blood-letting they act favorably, because, when the stasis has been overcome, they lessen intra-vascular pressure, and thus permit the blood-vessels to recover their normal condition. They also alleviate pain by lessening the bulk of blood in the part—*i. e.*, they relieve nerve pressure.

BELLADONNA AS A PROPHYLACTIC AGAINST SCARLATINA.—Dr. Beates (*Medical and Surgical Reporter*) has attempted to revive this old hypothesis of Hahnemann in a plausible form. He says: "We are compelled to admit that pyrexia is dependent upon the removal of an inhibitory influence, which influence is pre eminently that of retarding, or rather controlling, chemical changes in the body that result in the production of caloric. Tscheschin has proven the existence of such a centre. Here looms up the great physiological fact that nutrition, and all that is implied by the term, depends entirely upon the integrity of the nervous system. If we call to mind the manifestations of disturbed and perverted nutrition in scarlatina, and interpret the phenomena of adenitis, gangrene, and sphacelation, so common in the malignant type in which, as it were, the nature of the poison is magnified, we cannot err in the conclusion that this disease is a manifestation of a grave depressing influence affecting the nervous system of organic life—*i. e.*, the sympathetic. When a sensory or afferent nerve is stimulated, a fall of temperature follows, as the influence affects some centre either in or above the pons. This law, enunciated by H. C. Wood, possesses an important bearing upon the treatment of the disease under consideration; for, if a depressing poison occasions the phenomena denominated scarlatina by influencing the sympathetic system, a remedy possessed of the power to stimulate this system should, when administered in proportion to the degree of intensity of the depressing cause, be capable of re-establishing functional equilibrium, and dissipating the disease. Within certain limits this is a fact. Hitzig has conclusively proven that a caloric centre is located in the first cerebral convolution, immediately behind the sulcus cruciatus. Wood has proven that destruction of this region is followed by an enormous increase of heat production, and that the stimulation of it results in marked diminution of calorification. Scarlatina poison in sufficient quantity to affect the vaso-motor system curtails the power of the inhibitory area of Hitzig; belladonna in same proportion stimulates it. From these facts it seems to be clearly proven

that when we endeavor to meet a depressing agent that affects the same tract by depression as belladonna does by stimulation, we possess the rational method of treating this direful disease. That concomitant conditions arise and demand special treatment need scarcely be mentioned; our judgment and skill must serve for this issue''

CHRONIC STRYCHNINE POISONING.—Dr. Kiernan (*Druggist*, February, 1884) says that researches on this subject have been comparatively few. Vulpian (*Comptes Rendus*), in 1870, was probably the first to experiment in this direction. In 1879 Spitzka (*Journal of Nervous and Mental Disease*, 1879) independently made systematic observation. The animals used were frogs, and the method adopted was as follows: A series of sixty-two frogs were placed in the same number of marked glass jars. A record was placed with each jar, and enough water being allowed each frog to moisten the under surface of his body, a drop, or several drops (according to the size of the animal) was added from a standard solution of strychnine acetate containing .001 gram to the drop of water. These experiments were performed in the winter in a chamber perfectly dark (except when records were read by candle-light). Most of the frogs died on the fourth day; some which escaped, after showing some effects of the strychnine, when recaptured seemed to have recovered from it; fifteen frogs survived till twentieth and thirtieth day, and nine survived for forty days and longer, one living sixty-seven days; one animal was in tetanus for 298 hours continuously. Spitzka finds that after eight weeks the frogs show symptoms of disease of the spinal cord. Dr. Kiernan has repeated the experiment of Dr. Spitzka, with ten frogs. Of these, two died in three days; one on the fifth day, and on the twentieth one surviving till the fiftieth day, and one till the seventieth. The last two animals showed marked symptoms of spinal cord disease. As strychnine is becoming somewhat a routine remedy in various nervous diseases, it is well to know that there is such a thing as chronic strychnine poisoning, and that the dangers of producing the same are by no means minimal. Therapeutically these experiments show that in the beginning of treatment the quantity of strychnine has occasionally to be increased, but that later it can be diminished and given at rare intervals to keep up the physiological effects.

DETENTIONS IN ASYLUMS.—Dr. R. L. Parsons (*New York Medical Journal*, January 26, 1884) concludes: 1. That, inasmuch as many recoveries take place in asylums, it is to be expected that some convalescent patients may at times be found in the wards. 2. That while possibly now and then a convalescent patient may be detained on probation an unnecessary period of time, such cases are not of frequent occurrence, nor important in their consequences when they do happen; and that, when they do occur, the detention is very rarely indeed through criminal intent. 3. That many harmless incurables are unnecessarily detained

in asylums for the insane ; that these incurables would be happier in the enjoyment of ordinary family life and associations, and that systematic efforts should be made to secure their enlargement and establishment under family care. 4. That under certain circumstances curable patients should be removed from asylum restraint while yet uncured. As Dr. R. L. Parsons was for many years superintendent of one of the largest American hospitals for the insane no one can accuse him of prejudice.

TREATMENT OF NIGHTSWEATS OF PHTHISIS.—Dr. J. R. Forrest states (*Lancet*) that no internal remedies have the power of checking the perspiration until the fever has subsided and the patient is exhausted. The following is a most efficacious lotion :

Sulphate of zinc .....	gr. iv.
Tincture of belladonnæ .....	ʒj.
Water .....	ʒj.

The body to be sponged with the lotion at bedtime. It has proved serviceable in cases both of the incipient and advanced disease, the excessive sweating being often quite restrained after two nights' sponging. Quinlan suggests a trial of the hypodermic injection of atropine sulphate in doses ranging from 1-100th to 1-50th of a grain. The solution is best made with the laurel water of the Pharmacopœia, which completely dulls the local pain of the needle. It is well to begin with the smaller dose, for the larger one frequently causes dryness of the throat and temporary interference with vision. Some patients have required doses as large as 1-30th grain. The great merit of the treatment is that it does not interfere with the stomach, and if the mullein leaf boiled in milk be used to check the cough or phthisical diarrhœa, should they exist, the stomach is left free for nutritive purposes—an unmixed blessing to phthisical sufferers, whose stomachs are frequently hardly able for that office. Dr. E. Prideaux confirms Quinlan's experience, and usually gives the drug in pill form, beginning with 1-40th grain for an adult and 1-80th for a child. It loses effect from lengthened exhibition. In the case of a patient who took it nightly for two years he increased the dose after a long period to 1-30th, and ultimately to 1-25th of a grain. The formulæ are :

Sulphate of atropine .....	1-40 of a grain.
Hydrate of morphine.....	$\frac{1}{4}$ of a grain.
Capsicum.....	1 grain.
Aloes pill with myrrh.....	3 grains.

but in cases where a tendency to diarrhœa exists substitute oxide of zinc, three grains, for the aloes pill with myrrh.

REFLEX PHENOMENA DUE TO NASAL DISEASE.—Dr. Louis Elsberg (*Archives of Laryngology*) called attention to the fact that serious reflex phenomena might be excited by nasal disease. Twenty years ago he cured a very severe case of chorea simply by treating existing nasal

catarrh. Among the diseases falling under this class of which he had seen examples were melancholia, chorea, epilepsy, neuralgia, headache, digestive disturbances, reflex troubles pertaining to the upper air passages, uterine disorders and affections of the genito-urinary mucous membrane, disorders of smell and taste, various alterations in the speaking and singing voice, bronchial asthma, etc. Diffuse external redness of the nose was often dependent upon chronic nasal catarrh. A man came under his observation who suffered from chronic nasal catarrh, and was always seized with severe sneezing during coitus.

LITHOTRITY AT ONE SITTING.—MR. G. B. Browne concludes (*Lancet*, November 10, 1883) that the practical points to be attended to in attempting the removal of vesical calculus by lithotrity in the presence of organic stricture are: 1. Not to attempt such an operation if there is any false passage, or if the surgeon has not perfect confidence in his power to readily pass instruments in the particular case before him. 2. To use a lithotrite, the blades of which cannot become so separated by debris, as not to be approximated before withdrawal. 3. To thoroughly break the stone into small pieces, leaving no large ones, before commencing evacuation. 4. To evacuate only with tubes provided with stylets, so that if a fragment becomes engaged in the eye of the instrument it can quickly be dislodged.

COLOTOMY.—DR. J. C. Warren (*Boston Medical and Surgical Journal*) cites the two following cases in which he performed this operation; both operations giving only temporary relief: The first case was that of a twenty-three-year-old German girl, who had shown symptoms of rectal disease for one year. She suffered great pain on defecation, in consequence of an indurated growth, which an examination showed obstructed the lower portion of the rectum. An incision, embracing all the tissues between the anus and coccyx, and including the lining of the bowel and the skin, gave relief for a week or two, when the symptoms of stricture again manifested themselves, and it was found that the disease had extended above the incision. Colotomy was performed in the manner described by Allingham, special attention being given to antiseptic precautions, as a slight erysipelas had followed the first operation. Except a slight erysipelalous blush there were no unfavorable symptoms, and the patient was discharged from the hospital in thirty days after the operation, with complete relief from suffering, and having two natural movements from the bowels daily. The disease progressed, and the patient died in six months, being obliged to resort to opiates only a few days before death. The second case was that of an infant with congenital abscess of the rectum. In this instance the incision was made in the *right* groin, in accordance with the opinion of Huguier, that the sigmoid flexure is found there in infants. Relief followed the operation; but the child died on the fourteenth day from a progressive



emaciation. An autopsy could not be procured ; but Dr. Warren thought that the ascending colon had been opened. Considering the fact that the position of the sigmoid flexure, as given by Huguier, is found in a comparatively small percentage of cases, and that marked emaciation occurs when the ascending colon is opened, although the rapid and abundant discharge of fæces following the incision made it seem probable to him at the time of the operation that the opening had been made near the fundus of the cul-de-sac. He is of the opinion that the operation suggested by McLeod—viz., to perform abdominal section, when the rectum is wanting, free, and empty the end of the bowel and stitch it to the anal opening, although a severe operation—is to be preferred to all other alternatives. Dr. Warren says a linear division of the stricture which he has performed in a number of cases brings only temporary relief. A radical operation can only be attempted, with reasonable hope of success, in the earlier stages of the disease ; but it is important to recognize the fact that the terrible suffering peculiar to cancer in this locality can be greatly relieved by an opening in the bowel at some point above.

HEALING OF ULCERS IN LARYNGEAL PHTHISIS.—Dr. William C. Jarvis (*New York Medical Journal*) recently gave the history of a case of phthisical ulceration of the larynx in which the right vocal cord was almost entirely eroded, and in which there were all the peculiar signs of laryngeal phthisis. A well-known expert examined the patient, and stated that there were undoubted evidences of pulmonary phthisis. The patient was unable to swallow, and her condition had become very pitiable indeed. A very unfavorable prognosis was given. The treatment was general and local. Directions with regard to the taking of food, remedies for the relief of cough, pain, sleeplessness, and nervousness were prescribed, and iodoform was applied to the ulcer. The patient changed climate. Much to his surprise, on her return he saw a woman apparently well, and she claimed to be so, for all the symptoms from which she had so severely suffered had disappeared, and she had gained in flesh. The ulcer had healed. There were still signs of pulmonary phthisis. Dr. Johnston, of Baltimore, refers to a case of laryngeal phthisis which he had been enabled to follow from before the time when signs of pulmonary phthisis could be detected. The laryngeal ulcers in that case healed under treatment. Dr. Donaldson, of Baltimore, thinks that much could be done in these cases toward prolonging the life of the patient by feeding through the stomach pump. Dr. F. H. Bosworth, of New York, thinks that many cases of ulcer of laryngeal phthisis which had been reported as having been cured were not such in fact, but were of a catarrhal origin, and he pointed out the differential signs between the two varieties. He remarks that the laryngeal ulcer did not cicatrize ; the morbid growth simply stopped, and the surface of the ulcer took on a glazed appearance.

OXYGEN IN ILLUMINATING GAS POISONING.—Dr. A. Clarke (*N. Y. Med. Jour.*) cites the following cases: Case 1. A forty-year-old woman and her daughter had gone to bed the night before, and at noon were found in a state of unconsciousness, the room where they had been lying for fifteen hours being filled with illuminating gas, the odor of which had been noticed when they went to bed. On recovering from her insensibility, the patient could remember nothing from the time of her going to bed until she regained consciousness in the hospital ward, twenty-four hours after. On admission, she was suffering from pulmonary œdema; the radial pulse was scarcely perceptible, she was unconscious and cyanotic, her extremities were cold, there was trismus with rigidity of the flexor muscles, the urine was passed involuntarily, the pupils were slightly contracted, and a frothy mucus issued from the mouth; temperature was  $96.5^{\circ}$  F., and respiration 40. Dr. A. Clark directed the inhalation of oxygen. Its administration was kept up for three hours. In addition, dry cups were applied over the chest, and tincture of digitalis was given endermically—in all, to the amount of thirty minims. Whiskey was given subcutaneously, and hot-water bottles were applied to the extremities. Occasionally the patient was aroused by flagellation. This treatment was continued for four hours, when the woman began to show signs of returning consciousness; the pulse became more perceptible and regular, warmth returned to the extremities, and the temperature and the respiration were found to be normal. The next day the patient was able to tell her story, and was soon afterward discharged. Case 2. The daughter of the first patient, a twelve-year-old girl was admitted at the same time. Her breath had a very strong odor of gas; she was completely comatose, the breathing being stertorous, the eyes closed, the conjunctivæ insensitive, and the pupils contracted and insensible to light; the pulse was 156, extremely feeble, and occasionally intermitting; the respirations were 30 and shallow. There were clonic spasms involving the left side of the body, with bird-claw contraction of the fingers of both hands. The urine and fæces were passed involuntarily. The face and clothing showed evidence that the patient had vomited a good deal before reaching the hospital, but after her admission there was no vomiting. The house physician, Dr. Pryor, resorted to the same treatment in this case, and, in addition, gave a hypodermic injection of a sixtieth of a grain of atropine sulphate. This patient also recovered.

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THE PULSE AFTER HANGING.—In the *Journal of the American Medical Association* of December 8, 1883, appears a letter from Dr. Blankenship, detailing observations upon the pulse of a criminal during and after execution by hanging. After the rope was adjusted the pulse rate was 121; immediately after the drop it fell to 54, 39, 30, 20, and to 0 in the fifth minute; but the sixth minute it rose to 70, then 73; eighth minute, 0; ninth, 34; after this no pulse was perceptible. The death was from strangulation, the neck not being dislocated. It is stated that the heart beat two or three times between the ninth and nineteenth minutes, and once during the nineteenth minute.

ORIGINAL TRANSLATIONS.

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SPLENO-PNEUMONIA.—Communication read before the Société Médicale des Hôpitaux at the session of August 10th, 1883, by M. Grancher, Agrégé de la Faculté, etc. Translated from the *Union Médicale* of December 23, 1883, by H. McS. GAMBLE, M.D., Moorefield, West Virginia.

Woillez has described, under the name of *simple pulmonary congestion*, a morbid condition of the lungs, very variable in its physical signs and the behavior of its symptoms; sometimes primary and independent, sometimes secondary and associated with other diseases of the lungs, or with general affections.

The observations of Woillez have reference to an acute, febrile and rapid disease since, in the reflections that follow the history of the facts, Woillez finds that the average duration of three or four days assigned by his pupil, E. Bourgeois, to simple pulmonary congestion is too long. He would prefer to fix upon twenty-four to forty-eight hours as the average time necessary for the evolution of simple pulmonary congestion, so that the idea of *duration* is perhaps the most constant of all those which are found in the observations of Woillez. In fact, to every attentive reader the author has evidently wished to speak of a disease or of a pulmonary complication of every short duration; but the signs of auscultation, of palpation and of percussion are so variable that one would with difficulty find two cases alike in the histories which he reports. Sometimes the respiration is feeble, and sometimes exaggerated; sometimes the murmur is rude, or granulous, or blowing, or puerile, mingled or not with sibilance and with moist râtes. Often, finally, it is the bronchial souffle limited to the root of the bronchi, with or without crepitations, which becomes the predominant and only sign of the pulmonary congestion (p. 48 to 53).

The vocal vibrations are sometimes manifestly diminished, most frequently normal, never increased (p. 51).

Finally, the sonorousness may be tympanitic, or, on the contrary, dull or perfectly flat.

In spite of the uncertainty which results from this extreme variability of the signs and symptoms, an uncertainty which the analytical method of Woillez tends to exaggerate, very little experience in clinical matters suffices to induce one to admit that all these signs, isolated or grouped, fixed or stable, may be met with in pulmonary congestion. Hence, the type described by Woillez ought to stand.

It is a disease arising ordinarily after a rapid cooling off, coming on with a chill, and a pain in the side with fever and expectoration, lasting from twenty-four hours to four days. The most constant physical signs are dulness, a soft murmur and moist crepitations. The lesion is a pulmonary congestion. A process fluxionary and inflammatory at the same time, it answers quite well to the idea we had formed of a pneumonia aborted or arrested in its evolution. Between this pulmonary congestion and frank lobar pneumonia, along with

broncho-pneumonia, *there exists a morbid condition of the lungs, a sort of sub-acute pneumonia, which simulates a pleurisy with moderate effusion, and which merits a special description and denomination.*

The history of a patient admitted the 18th of July into my wards appears to me entirely decisive.

R. E—— is a young man twenty-four years of age, without any pathological antecedent hereditary or personal. Three months ago he complained of a pain in the left side and came for advice to Necker, where wet cups were prescribed and applied. The pain was relieved and R—— resumed his work; but from time to time, when he made an effort or took a deep inspiration, the pain reappeared near the sixth rib. No cough or expectoration.

The twelfth of July, six days before his entrance into the hospital, he was caught in a shower, and the very evening of that day a violent pain in the side was felt, still on the left; at the same time, a severe chill and dyspnoea came on. After this R—— was compelled to keep his room, shivering and coughing a little. He came to the hospital in this condition, and the evening of his entrance the thermometer indicated 38.5 C.

The examination of the chest showed that there existed in the whole lower portion of the left side, from the angle of the shoulder-blade down, the whole group of the physical signs of pleurisy: flatness with considerable weakening of the vibrations, shrill souffle, broncho-egophony, aphonic pectoriloquy (pectoriloquie aphone).

The diagnosis of the students was pleurisy.

However, in spite of the formal establishment of the signs which precede, I kept for myself the opinion that the pleura was sound, and that a pathological state of the lungs was the cause of all the symptoms. But, still doubting somewhat my diagnosis, I asked my colleague and friend M. Rigal to give me his opinion. M. Rigal thought that there existed with a pulmonary congestion a slight *pleural* effusion, and, to remove all doubt, he made at once, with a Pravaz syringe, an exploratory puncture at the point where the egophony appeared to him most manifest.

This puncture gave but a few bubbles of air and a little drop of bloody serum, the needle having entered immediately into the lung.

The next day and the days following there was no fever, but the same physical signs persisted; the patient not coughing save when he moved. He was taken then with a little cough without expectoration.

The 20th and the 21st of July I made two new explorations, and I could discover that the syringe contained a few bubbles of air and a little blood as soon as the point of the needle had penetrated to the depth of eight or nine millimetres, which amounts to saying, given the moderate embonpoint of the patient, that the pleura had undergone no thickening, and that the lung was applied against the thoracic wall. I have made punctures upon the cadaver, with an ordinary needle, with the view of measuring the thickness of the skin of the cellular tissue of the muscles and of the costal pleura, in the sixth and seventh intercostal space at the posterior angle of the ribs, and I have found an average thickness of eight to ten millimetres.

The 22nd of July I requested Professor Potain to see the patient, and I made him acquainted with the incidents which I have just related. M. Potain recognized the fact that the signs pleaded in favor of a pulmonary congestion with effusion, and said to me that, if the proof of the non-existence of this effusion had not been given, he would not have hesitated to admit the presence of a thin layer of liquid.

I have since that time submitted this patient to the examination of two of my colleagues, MM. R. Moutard-Martin and Tapret, of several of our esteemed confrères, MM. Gimbert, Roustan, Darenberg, Mahé, and of several internes, all of whom, in ignorance of my explorations, agreed upon the existence of a pleurisy. In fact, not only the signs of pleurisy were determined, but even the whole evolution of the disease, its début, its progress, its localization, etc., so that the idea of a pleural effusion imposed itself, even upon an examination, somewhat summary. It was necessary, in order to conclude, as MM. Potain and Rigal, upon the presence of a pulmonary congestion with a little pleurisy, to lay great stress upon the *quality* of the murmur and the egophony.

For all these reasons, very strong ones, as may be seen, our colleague, M. Blachez, to whom I showed the patient, persisted in thinking that there existed a gelatinous pleurisy, if not a pleurisy with effusion. It seems to me, however, difficult to make this opinion conform with the proof furnished by the capillary needle, that the lung is eight or nine millimetres from the surface of the skin. How can we explain, under these conditions, that the flatness, the diminution of the vibrations, the murmur, etc., are due to a pathological state of the pleura? MM. Potain and Rigal have not hesitated to admit with myself that the lung was, in this case, and at the moment of its examination, alone responsible for all the symptoms without serious participation of its envelope.

The sequel of the case is interesting. A sensible amelioration began to take place, the souffle was more circumscribed, the broncho-egophony weaker, the vibrations were reappearing, and the pain in the side was diminishing when R—— went down into the garden without permission. He did not say that he had experienced a sensation of cold. However, the same evening, the pain returned more intense, though without fever, without chill, and without cough (July 26).

The 27th of July we observed that the physical condition had reappeared near about what it was the first day. It seems, then, that the relapse was the consequence of the promenade in the garden. Condition stationary up to August 8th. From this date until the 29th of August the amelioration was slow, progressive and regular. The sonorousness reappeared little by little with the vibrations, whilst the murmur, the aphonic pectoriloquy, the crepitations and the egophony disappeared. At no time during this long period of convalescence could the least pleuritic friction be heard.

The apyrexia was complete from the day after his admission into the hospital (July 19), in spite of the relapse which we have witnessed. The appetite has remained good, the digestion satisfactory.

R—— left my service the 29th of August, cured without any therapeutical intervention. However, there still remained at the level of the pulmonary

lesion a respiration, especially inspiration, rude and granulous; this same character of the respiration was discovered somewhat everywhere, even at the apex of the left lung. I have seen this patient twice, one month and two months after his departure from the hospital, and the physical signs of a diffuse and general congestion of the left lung still persisted, which certainly causes me some uneasiness for the future.

Such is, without further comment, the case around which it will be easy, I believe, to group analogous or approximate cases.

I have under observation at the present time a patient whose brief history will throw light upon that which I have just reported. The two cases are related by the essential features, and differ a little by the secondary points.

We have here a young man nineteen years of age, somewhat weakly, and the son of a tuberculous mother, consequently suspicious, although of habitual good health. This young man had been suffering for two months, from time to time, in the region of the left false ribs, when on the 26th of last August he fatigued himself very much by dragging a cart up the hill at Bicêtre. He went to bed as usual in the evening, but on getting up the next day, he was seized with a violent pain in the left side and with chills. A physician was called, and prescribed the application of a blister. But the 30th of August, his condition growing worse, R—— came to the hospital. The cough is hard, dry, capricious and paroxysmal even to suffocation; the pain in the side very severe, the fever sharp, 40.2, and no expectoration. The physical signs in the lower third of the chest on the left side are those of an effusion, flatness, vibrations almost abolished, murmur soft, especially of expiration. Broncho-egophony slight with aphonic pectoriloquy. But during the strong expirations of a fit of coughing, we hear, even down to the base, crepitations which are dispersed only upon inspiration. Traubé's space is very sonorous. The vibrations reappear progressively increasing up to the apex. During the next few days, the fever being quite high all the time, the physical signs invaded, *in ascending and winding*, the sub-axillary and the sub-clavicular regions, so that by the 2nd and 3d of September one might have believed oneself confronted by one of those *winding pleurisies* of Lasègue.

In front, laterally and at the back, the lung was flat from the base to the apex, and the vibrations very much diminished. The murmur was hard and strong as it sometimes happens in large effusions. But the space of Traubé preserved its sonorousness in all its extent, and the fine and discrete crepitations, although inconstant, were observed even down to the lower edge of the lung.

The cough was somewhat quieted, expectoration absent still. I made an exploratory puncture with a Pravaz syringe in the seventh intercostal space. It was negative. Up to the seventh of September the condition does not change; but from the eighth R—— is better, the cough ceases, yet the souffle is all the time strong and diffused in the whole upper part of the lung; the crepitations, though rare, are always present, even at the base, on the level with the vertebral groove.

The twelfth of September our distinguished confrère, M. Leudet, of Rouen, doing me the honor of accompanying my visit, I showed him this patient, who

was already much better. The apex was beginning to clear up, and numerous and large crepitations could be heard. Below and behind the murmur was sharper, with a higher tone than formerly, and a new puncture performed under the eyes of M. Leudet at the angle of the ribs gave issue to a lemon-colored and somewhat viscous liquid.

It is probable that a small quantity of liquid had been formed recently in the pleura, at the moment of convalescence, when the less-congested lung was recovering, for since the first puncture I had made two others equally negative.

The presence of superficial crepitations on the one hand, the integral conservation of the space of Traubé on the other, precluded the idea of an abundant effusion, and to M. Leudet, as well as to myself, there seemed to be no doubt that this pleural exudation was an old *episode*, or a recent one supervening in the course of a *disease of the lung*.

The next day and the days following we found loud friction in the sub-axillary and mammary regions, which confirmed the participation of the pleura in the morbid process, for the problem presents itself, and will often present itself, thus : Is it a question of pleurisy with an abundant effusion, accompanied by a little pulmonary congestion, or a sub-acute pneumonia, a spleno-pneumonia with a little liquid in the pleura ?

Does there exist a third combination in which the fluxionary process equally divided between the pleura and the lung furnishes a mixture with equal proportions of pleurisy and pneumonia ; or, rather, does not the fluxion bring to bear its efforts alternately upon the pleura and the lung, as takes place in those cases of pleuro-pulmonary fluxion of which M. Potain has spoken at the congress at Rouen ? You see that the question is not always uncomplicated.

But, returning to the subject which occupies us, I hope to find few opponents if I say that a little effusion does not change the diagnosis when it has supervened in the course or in consequence of a primitive and dominant pulmonary lesion ; and this is the case with my second patient.

Here is then the abridged history of another man at this very time under my charge.

D—, 41 years old, is a subject of albuminuria, upon whom paracentesis was performed last year at several different times by my interne, M. Netter. To-day, in spite of the persistence of a little albumen in the urine, the ascites and the anasarea have disappeared, but there remains upon the left side an ensemble of signs which has caused the students to make the diagnosis of hydro-thorax, flatness, vibrations abolished, soft murmur, egophony.

At the beginning, towards the eighth of June, D— complained of weakness and of chills, accompanied by a pretty severe dyspnoea, and of a pain in the left side. He coughed and expectorated a good deal. On the contrary, he neither coughs nor expectorates to-day, although the physical signs of the lesion of the left lung have remained unchanged for more than three months. But, in this interval, D— has passed through several acute episodes during which the cough reappeared with the expectoration, at the same time that the right lung, ordinarily sound, was filled with sonorous and mucous râles. At one

time even, soon after the admission of the patient, a pretty active delirium came on for two or three nights, and we had to order a rigorous surveillance.

It must not be forgotten that this man is albuminuric, and that these crises of bronchitis with expectoration and cough, that this delirium even depends very probably upon his nephritis.

Ordinarily he is quiet, without fever, without dyspnoea, without cough or expectoration. He gets up every day and walks about in the ward. His appearance is pretty good, the appetite sufficient. To see him, no one would suspect either that he is a subject of albuminuria, or that, if his right lung is sound, the left is diseased throughout its entire length.

There was at first a circumscribed lesion in the lower lobe, and characterized by the classic signs of an intra-pleural effusion. Flatness, almost complete abolition of the vibrations, soft murmur, expiratory broncho-egophony. Little by little the sub-clavicular tympanism gave place to flatness, and at this point, as in the supra-spinous fossa, was found flatness in union with increase of the vibrations and respiratory weakness.

The 26th of July I made a negative exploratory puncture, and up to the end of September four new punctures, always with negative results.

I may add that the space of Traubé is intact, that a few pulmonary crepitations are heard even at the base, that above the inferior zone of the lung the vibrations are reappearing little by little, and not brusquely. All signs favorable to spleno-pneumonia.

Here we are then in possession of some facts which permit us to refer to the lung the sole or preponderant cause of the symptoms quite similar to those of a sub-acute or chronic pleurisy. Let us resume the symptoms. Flatness, considerable diminution of the vibrations, murmur soft, broncho-egophony, to which must be added the discrete crepitations, limited to inspiration, the conservation of the space of Traubé, the *progressive* increase of the vibrations from the base to the apex. To these characteristics, it is proper to add that even in the acute form the disease progresses and disappears slowly.

R— has taken five weeks to recover, and during more than fifteen days the physical signs have remained unchanged. My second patient, Rou—, has been sick for a month, and the resolution of his pneumonia has hardly commenced; his fever, high at the beginning, has lasted nearly twenty days, counting those he has spent out of the hospital. Finally, D—, the subject of my third history, has been sick for several months, and completely apyretic.

If the débüt may be acute and simulate by the chill, the pain in the side, the cough, a frank pneumonia or pleurisy, the ever-dragging evolution may be sufficiently tardy to constitute a chronic form apart from the sub-acute form which I suppose to be the most common.

What we know of the march of the temperature confirms the idea of a sub-acute phlegmasia. By the daily record in the case of Rou— it will be remarked that the great oscillations of the thermic column between 37° and 39.5° respiral exacerbations and morning remissions, lead to a progressive defervescence towards the twelfth day (sixteenth day of the disease). On the contrary, R—, the evening of his admission, the seventh day of the disease, had 38.5 ;



the next day he was apyretic, and from that moment until his recovery there was no fever ; the pulmonary phlegmasia was here very mild, and without any complication on the part of the pleura.

The third patient is apyretic, which does not mean that he has not had, at the commencement, some febrile days, but we do not know either of the degree or the form of this fever. New observations are necessary to fill up this vacancy. Likewise, the examination of the urine deserves special attention, which we have not yet given it.

We come now to the study of the lesion. We have no autopsy, and we can only proceed by induction and under *all due reserve*. But our knowledge of the pneumonic phlegmasias authorize, perhaps, at this time, an attempt at description.

In his examination thesis upon the different forms of broncho-pneumonia, M. A. Joffroy has given a part to the study of splenization, and has opened a chapter for spleno-pneumonia, which he considers as a form of broncho-pneumonia, corresponding with the *generalized lobular pneumonia* of Barrier, with the pseudo-lobar broncho-pneumonia of Damaschino and Cadet de Gassicourt. Although the pathology of infancy has been the principal objective of M. Joffroy, nevertheless adult age has not been systematically put aside from his description ; far from it. Besides, it is easy to find in the excellent monograph of our colleague the same exposition of symptoms that we have found in our own cases ; the flatness, the soft murmur, the crepitations, the ordinary diminution of the vibrations, everything that is essential is met with there, even to the fever with evening exacerbations and morning remissions. But, in the child, the symptoms are more mobile or fugacious, the crepitations more abundant, the dyspnœa very great, and the respiratory rhythm inverted.

These dissidences cannot efface the agreement of the principal symptoms in the adult and in the child, such as follows from the description given by authors, compared with the history of my patients. In both cases the splenization of the pulmonary parenchyma would be the fundamental element of the disease. What remains doubtful until the autopsy is the proportional part of the splenization in the morbid process.

Thanks to the works of Louis, Vulpeau, Bazin, Charest, and Balzer, we are beginning to distinguish pulmonary atelectasis, broncho-pneumonia and splenization.

The association in variable proportions of these three elements and of a few others, emphysema, etc., etc., etc., constitute the complex lesion of *broncho-pneumonia* in children. But, to consider only splenization and the broncho-pneumonic nodules, one may meet with them in inverse proportion, according to the case. Here the hepatized foci are very numerous and scarcely surrounded by a zone of splenized alveoles ; there, on the contrary, the tissue of the lung is uniformly red, smooth and level, splenized, in a word ; scarcely are a few nodules seen of broncho-pneumonia discretely scattered.

M. Joffroy refers to this last type when he describes separately the spleno-pneumonia of childhood as a variety of broncho-pneumonia, and, if I am not mistaken, my patients were attacked likewise with spleno-pneumonia.

Splenization is above all an *epithelial pneumonia*. Swelling of the lining cells of the alveoli and their desquamation, accompanied by an abundant sero-albuminous exudation, such is the principal lesion. It is necessary to add thereto the obliteration of the bronchioles by mucous or muco-purulent secretions and the œdematous infiltration of the peri-lobular connective tissue.

For M. Charcot the *obliterating inflammation* of the bronchi would be the primordial lesion, the cause of the atelectasis and of the splenization for the lobules which it supplies, and things would take place in the lungs as in the liver after ligation of the choledoch duct infallibly followed by epithelial neo-formations and connective tissue thickening.

To sum up, we would have to deal, then, with an epithelial inflammation with sero-albuminous exudation.

The microscopic aspect recalls that of passive congestions in which the lung is smooth and red, crepitation little, and serious, but the splenized lung is more compact, it yields less to the pressure of the finger, discharges less serosity, and sinks half way; finally, the histological examination removes all doubt. In the congested lung, the alveoli are nearly free of exudation, the microscopic section appears largely aerated; on the contrary, it is nearly opaque, the alveoli being full of epithelial cells and of albuminous serosity in splenization.

This difference is much more apparent upon microscopical sections than upon a comparative examination of the two lungs by the naked eye.

We might, perhaps, these classical views to-day upon spleno-pneumonia being admitted, attempt an explanation of the physical signs, and especially of the diminution of the vocal vibrations, the primary source of errors of diagnosis, in reflecting upon the manner by which the vibrations are formed and perceived. They arise in the larynx, are *propagated* in the bronchial tubes, and are *transmitted* by the pulmonary-parenchyma to the hand applied upon the thorax.

In the point in question, the absence of the ordinary signs of bronchial inflammation, expectoration and râles, seldom permits us to refer the diminution of the thoracic *fremitus* to a defect of propagation in the bronchial tubes. But if the transmission by the lung changes with the modifications of density which it has undergone, it is easy to see that the alveoli, half filled with sero-albuminous exudation mingled with epithelial cells, approaches rather to the density of liquids than to that of solids. Under these conditions, the pulmonary mass ought to oppose to the vocal vibrations nearly the same resistance as a layer of intrapleural liquid. In fact, the capillary punctures have furnished a drop of sero-sanguinolent liquid in which the red globules are few in number.

In support of this explanation, I might cite several autopsies, among others one which I made the 14th of April, 1878, at the Hôpital Temporaire, with M. Havage, my interne. It was a case, we thought, of pleuro-pneumonia, for the egophony and the diminution of the vocal vibrations were noticed up to the last day. But we found at the autopsy a suppurative pneumonia without a trace of fluid in the pleura, and without the possibility of admitting that there ever had been any, for the two layers of the pleura were intimately united by a thin symphysis, but organized, firm and old.

The lung was then alone responsible for the transformation of the ordinary

signs of pneumonia; but its tissue was grey, smooth and much less compact than at the second stage of pneumonia.

Besides, it is classic to attribute to certain pulmonary congestions, and to certain forms of œdema this same diminution of the vocal *fremitus*, and this attenuation of the murmur which is met with also in ordinary broncho-pneumonia and in spleno-pneumonias.

The diagnosis of *spleno-pneumonia* from *simple pleurisy* is difficult, for flatness and diminution of the vibrations are met with in both cases. Likewise the murmur and the egophony are quite similar; however, in pleurisy, *the egophony is purer and the murmur of a more acute tone*. But there are other differential signs. Some belong to the *locus*, I mean the discrete and superficial crepitations which are heard here and there in inspiration only, when there is inflammation of the pulmonary parenchyma; others belong to the *vicinity* (voisinage). The persistence of the space of Traubé is the best of all, for, save in very rare exceptions concerning wide-spread lobar-pneumonia, the sub-acute phlegmasia of the lung could not push back the semi-lunar space and render it flat.

It is known, moreover, that the lung which floats in the effusion of a moderate pleurisy undergoes a sinking that gives rise, above the level of the fluid, to a zone where the vibrations are abruptly increased. This *zone of condensation* is wanting in spleno-pneumonia, when the vibrations reappear *little by little and progressively* from the base to the apex.

But, although all these signs were combined in the patients of our first and third observations, the solution of the problem would have escaped us still had not the capillary puncture apprized us that the lung was applied against the wall of the thorax, at nine millimetres from the surface of the skin. Here is, I think, an unanswerable argument; however, to withdraw no liquid with the Pravaz syringe is not sufficient to affirm the absence of pleurisy; for this, it is necessary that a few drops of sanguinolent, and spumous serosity enter the needle of the Pravaz and the barrel of the syringe. Then only is one sure of having come in contact with the lung.

When the pleurisy is accompanied by pulmonary congestion, as so often happens, the diagnosis is still more difficult. I refer to those cases which Prof. Potain has so well described, and which will be found recorded in the excellent thesis of M. Serrand.

When in pleurisy with moderate effusion the lung is sound, it floats and retracts, yielding its place to the liquid. Such is not the case when the lung is congested, more dense and less retractile; it no longer allows itself to be pushed back, but sinks down in the liquid, and causes its level to ascend by so much the more as it is itself more voluminous. It results that the liquid seems more abundant than it really is, and that the condition of the lung, masked by the effusion, most frequently passes unnoticed. It is to M. Potain that we owe the knowledge and the elements of the diagnosis of these complex pathological states, much more frequent than is supposed, and which may be associated in very variable proportion. In the greater part of the observations published by M. Serrand, the pulmonary congestion was intense, and it seems to have preceded sometimes to have accompanied, at least, the formation of the pleural effusion.

On comparing the picture of the differential diagnostic signs of simple pleurisy, of pleurisy with pulmonary effusion, and of spleno-pneumonia, we arrive at the following conclusions: The capital, almost the characteristic sign of pulmonary congestion is a gummy, ropy expectoration, but little aerated, and often very abundant. Bouilloud had already recognized in it the highest diagnostic value, and the experience of every day proves that he was right.

The physical signs of pulmonary congestion with pleural effusion, and of spleno-pneumonia, are essentially the same—diminution of the vibrations, dullness, broncho-egophony, soft and grave murmur, are with it in both cases. The dry, rare, superficial crepitations belong to spleno-pneumonia as well as the conservation of the semi-lunar space.

It is easy to understand that the almost complete similarity of the signs may be a source of frequent errors, and that it is easy to take a spleno-pneumonia for a pulmonary congestion with effusion, and *vice versa*.

Where is the physician accustomed to practicing thoracentesis who has not made a dry puncture? And even in the thesis of M. Serrand is found the history of a case in which the diagnosis "pleurisy with pulmonary congestion" was not confirmed by puncture. The fourth of February, the quantity of the liquid was estimated at 1,500 grammes. The fifth and sixth, this *quantity increases*, and on the morning of the seventh puncture was practised in the external portion of the sixth intercostal space. "*No liquid, but only a little blood. There is then no liquid, or almost none, in the pleura; it is most certainly a case of pulmonary congestion.*"

In re-reading this description, I ask myself if the diagnosis of spleno-pneumonia would not meet this case? Besides that, it was clearly demonstrated that the lung was alone responsible for the physical signs observed; the patient had coughed but very little, and had not expectorated at all. Moreover, crepitations appeared February the thirteenth. Finally, after a short fever, came along apyrexia. S—— left the hospital the seventeenth, the level of flatness having remained the same, and the other physical signs simply attenuated.

Do not this fixity and this duration of the physical signs, added to the crepitations, to the absence of expectoration, and to the proof furnished by the trocar of the absence of all liquid, seem to demonstrate that it was a question of a sub-acute inflammation of the lung reproducing, trait for trait, the history of my first case?

Between *simple pulmonary congestion and spleno-pneumonia* the differences are great, if we refer to the pure types of each one of these pathological states. The variety and the mobility of the physical signs, the abundance of the crepitations and of the expectoration, the greater acuteness, and also the much more rapid evolution of congestion, are so many differential symptoms which do not long admit of confusion. But the pulmonary congestion, which lasts, which installs itself and persists after the febrile period for two, three, four septenaries, has the greatest affinities with what I believe to be spleno-pneumonia. It is probable that the anatomical differences are of little moment, and tend to become effaced in proportion as the congestion lasts, which passes little by little into epithelial pneumonia.

A point often very delicate is to decide, given a spleno-pneumonia, whether there exists or not, concurrently with the epithelial inflammation of the lung, an exudative pleurisy with but little effusion. The error is so much the more easy, as a small quantity of fluid does not change sensibly the physical signs, the crepitations being readily heard through a thin layer of effusion, and as the liquid may retreat to the angle of the ribs in the pleural culs-de-sac, or even between the diaphragm and the interior face of the lung. But the presence of a small pleural exudation, by no means changing the state of affairs in reality, its diagnosis matters little. In return one may see, as in my second patient, an inflammation of the pleura accompany the pulmonary phlegmasia and the line of flatness gain, in *ascending* and *winding*, the axilla and the sub-clavicular region and realize what Lasègue called winding pleurisy.

A sound lung in a state of semi-collapse and pushed back by a hydrothorax may produce an illusion in certain exceptional cases, and I have recently seen the proof of it since I have committed this error in the service of my colleague M. R. Moutard-Martin. In the patient of whom I am speaking, we had not overlooked the presence of the effusion, and puncture performed on two occasions had given, the first time two hundred grammes and the second eight hundred. We thought no longer of an acute or a sub-acute pulmonary inflammation, the patient having never had fever or pain in the side. But, in the presence of the physical signs in every respect like those of a pulmonary splenization, we had thought of a chronic inflammation of the lung accompanied by effusion.

The autopsy showed that it was a case of hydrothorax with pulmonary collapse.

At each inspiration the lung simply compressed gave out through a thin layer of liquid *crepitations of unfolding* (*crépitations de déplissement*) which, united to the other signs, broncho-egophony, soft murmur, attenuated vibrations, were the cause of our mistake.

But it is proper to add that the thoracic cavity was, in this patient, extremely reduced by the volume and the adiposity of the heart, by the enormous hypertrophy of the spleen, and the excessive developement of the stomach, so that a little effusion of seven to eight hundred grammes produced upon the lung the effect of a crowding back, and of a compression of an effusion of two or three litres in an ordinary thorax. The extreme adiposity of the subject having rendered all investigation of the space of Traubé, all palpation of the spleen, of the stomach and of the liver impossible, we could not appreciate the ratio of the thoracic capacity, of the quantity of effusion and of the volume of the lung.

This review of the differential diagnosis of *spleno-pneumonia from pleurisy, pulmonary congestion with effusion, simple congestion and pulmonary collapse*, is all that the histories which I have in my hands permit. It would have been easy for me to find in medical literature facts analogous to that which I have borrowed from the thesis of M. Serrand; but, besides that I am ignorant whether the authors would accept my interpretation, nothing can take the place of direct observation for the interpretation of physical phenomena, murmur, egophony, etc.

The prognosis of spleno-pneumonia seems more serious than that of simple pleurisy and of pulmonary congestion. This is all that I can say of it, the documents being wanting and being but illy replaced by more or less faithful souvenirs.

## ORIGINAL ABSTRACTS.

(BY J. G. KIERNAN, M.D., CHICAGO, ILL.)

PROTRACTED PREGNANCY.—Dr. Ballard (*British Medical Journal*, Jan. 12, 1884) says that he has attended a sixteen-and-a-half-year-old girl, the duration of whose pregnancy was 306 days, or 44 weeks all but two days. He has been very careful to guard against error with regard to this case, and believes it may be accepted as a reliable contribution to the statistics on this subject. The pregnancy was the result of a single intercourse. The labor was short and easy for a primipara, and the child quite within the average as to size.

ETHYL BROMIDE IN DELIVERY.—The *Medical and Surgical Reporter* states that the investigations of bromethyl in childbirth have demonstrated that in any of the bromine ethyls is found a remedy of the greatest value in delivery. Its greatest advantage consists in causing local anæsthesia without loss of consciousness. Dr. Parnemann's (*Allg. Med. Centr. Zeit.*, No. 86, 1883) researches appear to prove definitely that under the influence of bromethyl the labor generally progresses more regularly, the single contraction of the uterus endures longer and is more powerful, that the frequency of the pulse suffers no alteration, and that there is perfect local anæsthesia. Rapid effect is another benefit derived from this remedy in childbirth. Dr. Parnemann established that usually, at the first inhalation of the drug, about ten deep inspirations are sufficient to establish local anæsthesia, while during the later inhalations two deep inspirations mostly answer to make the labor painless. Delivery may be concluded by the application of the forceps, and the latter causes almost no expression of pain. The patients were conscious during the whole time, yet totally free from pain, and disagreeable consequences have not been noted.

PANCREATIC EXTRACT IN TYPHOID FEVER.—Dr. Frank C. Wilson recommends (*American Practitioner*, January, 1884,) that the milk given to typhoid patients should be first digested with extractum pancreatis. Milk thus treated cannot be coagulated by even the strongest acids, its casein being transformed into peptone, and in a condition to be at once absorbed and assimilated. A slight bitterness, to which the patient soon becomes accustomed, is noticeable at first, so that it is taken readily and produces no discomfort. This may be avoided by stopping the process of digestion before it is entirely completed. It has been found by experiment that the taste is developed only when the casein is entirely peptonized. It is scarcely ever necessary to carry the artificial digestion so far. When stopped at any point before completion the taste is perfectly natural. If immediately placed on ice, it can be kept as long as simple undigested milk. The pancreatic extract ferment is held in a latent condition, and when taken into the intestinal canal may still further aid in the completion of the digestive process. To prevent the patient becoming tired of the same article of diet day after day, its form of administration may be varied in a number of ways. As the casein is peptonized, and cannot be coagulated by even the stronger acids, the milk so prepared can be utilized in making milk punch. This can be flavored with lemon-juice or any other acid desired. Thickened with gelatine, sweetened and flavored, it forms a delicious milk jelly suitable for convalescent patients and grateful to the taste. During the past two years Dr. Wilson has met with many instances in which pancreatic extracts gave good results. It is useful in all instances where the digestion is enfeebled, or where it is interfered with by ulcerated or inflamed surfaces, the process of peptonizing food will be

found of service. In rectal alimentation its importance is manifest, the food so prepared is readily absorbed without inconvenience or irritation. Dr. Wilson has sustained patients with gastric ulcer entirely by nutrient enemata twelve or fourteen days. In this time the ulcer will heal so as to allow the cautious administration of peptonized milk in gradually increasing quantity, until a full meal can be taken.

SEPARATION of the symphysis pubis occurred in a sixteen-year-old girl, thrown from her horse whilst riding astride on a man's saddle, and dragged some distance (*Australasian Medical Gazette*). When seen six weeks after the accident, she was suffering from bed-sores on the back and buttocks, with a sinus in the left groin passing close to the labium. There was a copious, thick and very fetid discharge from the vagina. There existed a separation of the pubic symphysis of one and a half inches. On introducing the finger into the vagina the roughened edges of the pubic articulation, denuded of cartilage, could be easily made out. The finger in the vagina could be plainly felt by a finger placed on the mons veneris, nothing but skin intervening between the two. The orifice of the urethra was dilated and altered in position. Six months after the accident, the finger, introduced into the vagina, encountered firm bands of tendinous substance, and uniting the pelvic articulation, part of the edges of the pubic articulation could still be felt, but smooth and covered by membrane. When first allowed to walk the girl felt "loose," and as though she was falling asunder. This existed only slightly later on, and was quite counteracted by a firm band round the hips. Incontinence of urine and cessation of the menses existed from the first.

METALLIC IMPURITIES IN CANNED MEATS.—Dr. E. Davies (*Pharm. Jour. and Trans.*, January 19, 1884) says that his attention was recently called to a case of poisoning from eating tinned salmon, the doctor who had charge of the case having attributed the same to tin nitrate. Of course the chemistry of the medical gentleman was, to say the least, peculiar. Tin nitrate, either stannic or stannous, can only be formed by the action of nitric acid, either on tin or stannous hydrate for stannous nitrate, or on stannic hydrate for stannic nitrate. But there is no nitric acid in the flesh of salmon, and the formation of nitric acid from its nitrogen in the absence of oxygen is a chemical impossibility. Indeed, nitrates of tin are such unstable salts that they could not have endured the heat of preparing the tinned salmon, even if they had been purposely added. Whether tin can be taken up by the oil in which the salmon is cooked seemed, however, a possible thing, forming a fatty salt of tin. He, therefore, analyzed the oil from a tin of preserved salmon, using the cheapest kind. Three hundred grains gave .03 grain of residue on igniting the precipitated sulphides, of which a part was lead and a trace of tin. This amount is insufficient to cause any effect. Whether tin in such a form is poisonous is not known. The only tin salts which have been known to possess poisonous properties are the stannous and stannic chloride. Stannic chloride, as usually prepared, contains free acid, and its strongly irritant effects may be thus partly accounted for, but these salts are not present in tinned meats. Tin in the metallic form is not at all poisonous, and tinned vessels have been in such constant use for cooking purposes that some cases must have been met with if they could impart deleterious properties to the food. The lead which is almost always present in the tin used for tinning may be supposed to be the active agent. He analyzed tinned beef for this metal and found on the whole of the outside of the meat in a 4-pound tin .07 of a grain. The interior of the meat was quite free from tin. Lead poisoning from small doses does not cause sudden symptoms. Paralysis is the usual result, and not symptoms of irritant poisoning. The amount above stated

is quite insufficient to produce any visible effect, and the removal of the outside would remove any that might be present. He also analyzed a tin of tomatoes which had apparently suffered partial decomposition. Two ounces gave .10 of residue when the sulphides were ignited. This was principally tin with a minute amount of lead. The tomatoes were, of course, acid, and acid substances should not be preserved in tinned vessels, but even this quantity is so small that he should hesitate to assume that it could be injurious. The bad effects which have in a few cases resulted from the use of tinned meats are due to decomposition of the meat, owing to imperfect closing or faults in preparation. The results of his examination are that lead should be carefully excluded in the preparation of the tin plate, and that acid liquids should not be kept in tinned vessels, but that no cases are known in which any injurious effects have been proved to have resulted from metallic impurities in tinned meats.

RECIPROCAL INSANITY.—Under this title Dr. R. L. Parsons (*Alienist and Neurologist*, October,) discusses *folie à deux*, and concludes: 1. That, although under ordinary circumstances the contagion of insanity does not extend from one person to another, the influence of the insane on persons inheriting similar faults of constitution, or a known predisposition to a similar form of insanity, should be avoided as dangerous. 2. That the conditions favoring contagion are most likely to occur among blood relations, who are intimately associated. 3. That emotional forms of insanity are especially liable to extend from one child to another; and also in a lesser degree among women. 4. That when two or more persons thus become insane, through similarity of predisposition, sympathy and intimacy of association, they usually exert an adverse reciprocal influence upon each other, both as cause and effect of their insanity. 5. That the contagion of insanity under the influence of sympathy, predisposition and intimate association, is most likely to occur during the inception and developing period of the disease; and that this liability ought to be taken into consideration, among other reasons, in determining the question whether it is advisable to treat insane patients at their own homes, during the early stages of their insanity. The last conclusion in its final phrase gives a therapeutic hint of most decided value.

BENZOIN AND IODINIZED CAMPHOR IN CHILBLAINS.—Dr. Seiler (*Polyclinic*) claims excellent results from painting chilblains with tincture of benzoin, and Mr. J. F. Leary, Rockhill, Md. (*American Druggist*), has found the following, painted on unbroken chilblains to give quick relief: Tincture of iodine, 2 parts; camphor, 1 part.

CASTOR OIL AND LAUDANUM IN SORE NIPPLES.—J. F. Leary claims that application of the following mixture, applied once or twice after each nursing, gives relief to sore nipples: Take of castor oil two ounces, laudanum five drops. M.

PICRIC ACID AS A TEST OF ALBUMEN.—Drs. Chas. A. Cook and Ralph B. Watkins, resident physicians, Bay View Asylum, Baltimore, Md., have (*Medical News*) found that in malarial cases in which quinine and cinchonidine were being used in large doses, these alkaloids were excreted in the urine, and gave, with picric acid, a reaction simulating that of albumen. Solutions of the alkaloids were found to give similar precipitates.

BISMUTH SUBNITRATE AS A WOUND DRESSING.—Dr. A. C. Post has found (*New York Medical Journal*) Koehler's bismuth treatment of wounds yields excellent results. He used it in the case of granulating surfaces following burns, and



found than it diminished the amount of granulation, the contraction of which, when they are allowed to develop, was the chief source of deformity. In neither children nor adults had the dressing caused the slightest intoxicating effect.

SUGAR IN HICCOUGH IN CHILDREN.—Dr. H. Tucker (*Southern Medical Journal*) says he has never known the following treatment to fail in hiccough: Moisten granulated sugar with good cider vinegar; give to an infant from a few grains to a teaspoonful. The effect is almost instantaneous, and the dose seldom needs to be repeated.

PAPAIN.—Berthaud (*L'Union Médicale*, November 13, 1883) recommends as a substitute for pepsin, a milky juice extracted from the trunk and unripe fruit of the carica papaya. The fact that this tree contained a substance analogous to animal pepsin has long been known, but until 1880 no attempts were made to render such a fact of practical use. Wurz and Bouchat have found that milk, flesh, and fibrin are digested in greater quantity and with more ease by papain than by animal pepsin. Berthaud has found papain to act well in all functional stomach troubles.

SICK Headache Pencils consist of menthol, mixed in the better kinds with eucalyptol; in the cheaper with ordinary camphor. They are moulded into the shape of a cone, and enclosed in a little wooden box (*Pharm. Zeit.*). The pencil is drawn across the seat of the headache, causing at first a burning sensation, soon succeeded by relief of pain. Dr. E. C. Wendt (*New York Medical Journal*, January 25, 1884) has found it of great value. Menthol is sometimes adulterated with Epsom salts, these being insoluble in alcohol or chloroform in which menthol was readily soluble. Samples of fine crystals sometimes had some essential oil adhering to them, a fact to be taken into consideration when making pencils.

CAMPHORATED CHLORAL IN NEURALGIA.—Redier (*Medical News*) recommends the following as local applications in neuralgia. They can be also used to prevent pain prior to opening boils:

Chloral hydrat.....		
Gum camphor.....	aa	ʒ ij.
Morphiæ sulph.....		ʒ ss.
Chloroform.....		ʒ j. M.

This may be painted with a camel's-hair brush over the area affected; allowed to dry and repeated as necessary to render the part insensible.

R. Ether or chloroform.....	ʒ ij.
Camphor.....	ʒ j. M.

Apply with a brush

R. Acidi acetici (cryst.).....	part 1.
Chloroform.....	parts 20.

Solve. Apply with a brush.

CALCAREOUS PARTICLES PASSED PER VAGINAM.—The following case was recently cited by Dr. W. Goodell (*New York Medical Journal*). The previous history had been that of menorrhagia, and multiple fibroids were found in the womb. One of these fibroids had evidently taken on calcareous degeneration, and had subsequently broken down, and discharged these fragments into the uterine cavity. He stated that these particles were not true bone, but merely the product of a disorderly deposit of lime, which possessed none of the osseous ele-

ments, not even cartilage corpuscles. This calcareous degeneration tended to cure the disease by breaking off the vascular filaments of attachment and lessening the nutrition of the fibroid. In one instance, the specimen of which was now in the museum of the University of Pennsylvania, he had seen three fibroids wholly converted into stone. These stones were, however, very light, and not like those of the bladder. The expulsion *per vaginam* of these uterine calculi greatly puzzled the older anatomists.

EXCISION OF THE SHOULDER.—Dr. W. Stokes (*British Medical Journal*, Nov. 10, 1883) concludes: 1. The operation should be performed by the Ollier-Langenbeck method, avoiding, however, in pathological resections periosteocapsular preservation. 2. The excision of bone should be as limited in amount as is compatible with the removal of disease. 3. Preservation of the periosteum is only indicated in traumatic resections, where there is much involvement of the shaft of the humerus. 4. The use of splints is not indicated in the after-treatment of resection shoulder-joint. 5. Rapidity of union is strongly indicated after this operation, and can best be obtained by a rigid adherence to Listerian antiseptic practice. 6. Passive movements, gymnastic exercises, and massage, should be commenced as soon as possible after the operation. 7. The statistics of the operation, whether done for traumatic or pathological, suppurative or non-suppurative, lesions are eminently satisfactory and encouraging.

BELLADONNA AND AMMONIA BROMIDE IN WHOOPING COUGH.—Dr. Keating (*Southern Practitioner*) says that he treats whooping cough as follows: A steam atomizer is charged with the following mixture: ℞. Ext. Belladonnæ fluid, gtt vi. to xii.; ammonii bromidi, scr. i; potass bromidi, scr. ii.; aq. destillat, ℥ ii. Misce. The atomizer is placed on a table before the patient, the spray rapidly carried over into the face, mouth and lungs of the child, and continued till the pupils are dilated by the belladonna. The application is to be made morning, noon, and at bed-time. It has cut short the spasmodic cough within two or three days, uniformly and almost to a certainty.

HEAT AND CHANCRE VIRUS.—Aubert (*Lyons Méd.*, Aug. 12, 1883) claims that the virulence of the chancrous virus is diminished or destroyed when subjected for a length of time to the normal temperature of the interior of the human body. Matter taken from the surface of the sore was placed in vaccination tubes. It was found that after exposure of from sixteen to eighteen hours to the normal temperature of the body the pus globules became disintegrated and the virulent properties of the matter entirely disappeared, so that it was no longer inoculable. Aubert claims that these experiments explain why chancre poison does not penetrate the interior of the body. Only in situations so exposed to atmospheric influences as to maintain a temperature considerably lower than that of the interior of the body that the disease is able to take effect. Buboës occur only in the glands nearest the surface. Internal cervix chancres are of short duration, their appearance often changing completely in twenty-four hours. Anal chancres are confined to the more exterior parts. The simple buboës, associated with the chancre, are about as common in this connection as the virulent ones. Dr. Aubert claims that when they are simple in character their inception has been accompanied with fever, involving a sufficiently high and prolonged temperature to annihilate the virulence of the virus conveyed to the inguinal glands. If auto-inoculation be practised during an intercurrent febrile attack, it will not succeed; when the fever has passed it may be practised successfully. The reason why the original chancre is not similarly affected during fever, is because (aside from the fact already mentioned, that the region

it affects is apt to be more under the influence of the surrounding temperature of the atmosphere than the rest of the body) the virus would naturally be more easily destroyed when first inoculated than after it has had time to establish itself. Chancre has its virulence obliterated by an attack of erysipelas or gangrene involving its site. In situations where the normal local temperature is habitually low, the chancres are most apt to be large and severe in character. Dr. Aubert, therefore, aims to imitate the action of an attack of erysipelas affecting the region occupied by the chancre. Simple heat, however, applied superficially, is not enough, but should be supplemented by a more general elevation of temperature. The patient is kept in a sitz bath, or better, the "half" bath, at a temperature of from 104° F. to 107° F. for several hours, the part affected, as well as a considerable portion of that region of the body, being immersed in warm water.

TO DETECT THE TUBERCULE BACILLUS.—Dr. A. Abrams (*Pacific Medical and Surgical Journal*, Nov., 1883) says that the following is the best method: A thin layer of sputum is to be spread out on a cover-glass, then carefully drawn through a flame until dried. After this has been accomplished, the coloring process is next in order, and for this purpose any of the basic aniline colors may be utilized, preference being given to a concentrated solution of gentian violet or fuchsin or aniline water (a saturated filtered solution of aniline). Into any of these solutions the cover-glass is now introduced, and allowed to remain for about twenty-four hours; but, should the coloring take place at a temperature of about 122° F., an hour will amply suffice. The preparation is now ready for decoloration, and for this purpose a 20 per cent. solution of hydrochloric acid is to be ready, into which the cover-glass is introduced and allowed to remain until the specimen assumes a yellowish color. It is then removed, washed in water and exposed to the atmosphere until dry. Then a drop of Canada balsam is added, and the whole introduced on a slide, when it is ready for examination. By this method it will be found that the tubercle bacilli alone present themselves in the field of vision as intensely stained rods; whereas all the other constituents of the sputum are decolorized. These directions are only achieved by a nicety of manipulation, a good microscope with accessories, and an immoderate quantity of patience.

MELANCHOLIA ATTONITA, STUPOROUS INSANITY.—Dr. J. W. Wigglesworth (*Journal of the Medical Sciences*, October) concludes that from the ill-defined assemblage of cases called "melancholia," "melancholia attonita," and "acute," a group has to be distinguished which constitutes a definite clinical and pathological entity. Second. That this group is characterized by the association of more or less self-absorption passing into vacuity with a definite affection of the muscular system by muscular tremors and muscular rigidity. Third. That the pathological basis of the same is best marked in the so-called motor cells, and possibly originating in them, but having a tendency to spread beyond their area.

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LONG-RETAINED PESSARIES.—It may prove useful, as furnishing the key-note to some obscure cases of ill-health, if we bear in mind that cases are on record where a pessary has been introduced to correct some uterine deformity, and, being forgotten, has been allowed to remain for years in the vagina, acting constantly as a foreign body, provoking inflammation and suppuration, and producing a variety of morbid phenomena through the agency of reflex nervous influences. Dr. C. F. Paine reports a case in the *Texas Courier-Record of Medicine*, November, 1883, where a Hodge pessary, forgotten and worn for thirteen years, has, he fears, permanently injured the woman's health.

## SELECTIONS.

RECENT PROGRESS IN THE TREATMENT OF THORACIC DISEASE. By FREDERICK C. SHATTUCK, M.D.

## INCISION OF THE PERICARDIUM.

Since the case of Rosenstein\* three others have been reported. Partzevsky† communicated to the Moscow Physico-Medical Society the case of a man of twenty-three who, four years previously, had gone through an attack of right pleurisy with obliteration of the cavity, partial atelectasis of the right lung, chronic inflammation of its apex, and contraction of the right summit of the chest. He entered the hospital with the signs of left pleuritic and pericardial effusion of recent origin, and absorption soon began, progressing rather more rapidly in the pericardium than in the pleura, indeed, within six weeks all traces of pericarditis disappeared. In the seventh week, however, it was evident that the fluid was reaccumulating about the heart, although absorption was still progressing in the pleura. On the sixty-third day after admission the pleural effusion was gone, but the area of cardiac dulness extended from the right nipple to the left axillary line and upwards as far as the second rib; the cardiac region bulged outwards; the apex beat had disappeared, the heart sounds were almost inaudible, and the pulse could scarcely be felt; respiration 52; there were extreme cyanosis and general weakness; swallowing was almost impossible. Under these urgent circumstances the author decided to remove pressure on the heart by tapping, and after an exploratory puncture with a hypodermic syringe an aspirator needle was inserted in the fourth [left?] interspace, within two inches of the sternum, and about two and one-half pounds of brownish, turbid, serous fluid were drawn off. This was immediately followed by great relief (pulse full, regular, 96; respiration 36; decrease of cyanosis; easier deglutition), which, however, lasted only three days. On the fourth day the patient had a chill and a morning temperature of 102.7° F., and on the sixth the pericardium was again greatly distended. The symptoms of incipient pulmonary œdema led to a second aspiration on the eleventh day, but only three ounces of pus were obtained. On the following day, the condition of the patient growing worse, an incision was made in the fourth interspace, and two drainage tubes were inserted, through which an enormous quantity of pus escaped. The pericardial cavity was washed out with a salicylic solution (one to three hundred), and Lister's dressing was applied. During the next ten or fifteen hours the patient felt much better, but a sleepless night had utterly broken his remaining strength, and he died in a state of collapse about thirty hours after the operation.

The autopsy showed that the pericardium, which contained three ounces of pus, was greatly thickened and covered with false membrane, that the right ventricle was hypertrophied, and the cardiac muscle fattily degenerated. Both pleural cavities were obliterated, and the lungs atelectatic and œdematous. The liver was pushed up to the fourth rib, and fixed there by adhesions to the diaphragm.

Of the author's conclusions we have space only for the fourth: "In cases of purulent pericarditis it is perfectly justifiable to try an early operation in order to prevent dilatation and fatty degeneration of the heart, which generally supervene here very rapidly."

The second case was reported by Dr. West‡ to the Royal Medical and Chi-

\* Vide *Boston Medical and Surgical Journal*, 1882, Vol. cvi., p. 158.

† *London Medical Journal* February 15, 1883.

‡ *British Medical Journal*, 1883, i., 814.

rurgical Society. A boy, aged sixteen, had a large pericardial effusion. The symptoms became so urgent that paracentesis was performed. Pus was obtained. Three days later paracentesis was again performed, and subsequently the pericardium was laid freely open, evacuated, washed out, and a drainage tube inserted. The temperature never rose, and the boy recovered entirely in five weeks, the only feature of interest being an attack of general urticaria, which came on a week after the operation, and lasted three or four days. The following points of special clinical interest were emphasized: 1. The absence of any special signs to indicate the nature of the effusion. There was no friction to be heard before the operation, or mill-wheel sound characteristic of hydro-pneumopericardium after the free incision. 2. The place selected for puncture and incision was the fourth interspace immediately below the left nipple. 3. Fourteen ounces were removed by the first tapping, two quarts by the free incision. 4. A peculiar epigastric prominence noticed before paracentesis disappeared after operation. 5. An attack of urticaria. 6. The *pulsus paradoxus*, which was constant up to the time of the free incision, disappeared immediately after.

The discussion which followed the reading of the paper was an interesting one, but we can only notice the remarks of Mr. Hulke, who advised the very cautious use of the trocar or needle, and careful dissection down to the pericardium in cases of free incision. He had himself, after medical consultation, in a case which was believed to be one of pericardial effusion, once inserted a trocar and canula somewhat bodily, and the withdrawal of the trocar had been followed by a jet of blood, which gave him great anxiety, but, happily, relieved the patient. A subsequent post-mortem examination showed him that he had punctured the right ventricle, and that the case was one of universally adherent pericardium.

The third case was reported to the Pathological Society of London, also by Dr. West.\* The patient was a boy of fourteen who, ten days after a severe fall, developed an abscess in the left shoulder, which was incised, and subsequently counter-opened. In addition to pyrexia there were cyanosis and dyspnoea with the signs of pneumonia of the left base. Some days later a few ounces of serum were removed from the left pleura. A second puncture a little later revealed no fresh fluid. The pericardium was felt to be full of fluid by the finger inserted into the side wound, and was incised, with the removal of twenty-four ounces of pus. The patient was relieved for the time, but the dyspnoea and cyanosis continued, and the patient subsequently died in the ninth week from the accident. The autopsy showed a large abscess in the left thigh, and inflammation of the left ankle-joint. There was extensive thickening of the mediastinal tissues, the arteries being deeply imbedded in it. The left pleura was divided by adhesions into three parts, each containing serous fluid. The pericardium was in great part obliterated except at the apex; there was no obstruction of any of the vessels. Dr. West drew attention to the fact that in this case incision had entirely relieved the pericardium, which was rapidly tending towards obliteration fourteen days after the operation, and that death appeared to be due rather to the other lesions present. Dr. West held that surgical interference with the pericardium is not more dangerous than (if, indeed, so dangerous as) that with the pleura or peritonæum.

[Of the four recorded cases in which the pericardium has been incised, two were uncomplicated and recovered, two were complicated and died, though apparently in spite, rather than in consequence, of the operation. In West's case the cause of death was pyæmia. In Partzevsky's there would seem to be a possibility that the patient might have recovered if the operation had been done earlier. These facts justify the measure, and indicate that it is likely to become a generally recognized method of treatment. As far as we know the experiments of Dr. Rotch, of this city, which tend to show that the fifth right interspace near

\* *Lancet*, 1883, ii., 991.

the sternum is the safest place for aspiration in pericardial effusion, have not yet been put to the crucial test in the living subject. Whether this be the place of election for tapping or not, it is obvious that a free incision into the pericardium should be made in the left side.—REP.]

AN ELASTIC RESPIRATOR AS A MEANS OF TREATMENT FOR EMPHYSEMA.\*

The shortness of breath which characterizes this disease is largely due to the inability to expel enough air from the chest to make room for a fresh supply, the elasticity of the lungs being lost, and the thorax becoming fixed in the position of full inspiration. The idea of aiding expiration by artificial means is no new one, but pneumatic cabinets and Waldenburg machines for compressing and rarefying air are not portable, a fact which greatly limits the real service these methods, and especially expiration into rarefied air, may be made to render. Impressed with the desirability of having at command some comparatively simple means for exerting a more constant expiratory force to emphysema, M. F  ris conceived the ingenious plan of applying a sort of truss to the chest much like that in use for double inguinal hernia. A pad is fitted to the spine with a spring extending from either side across the axill  e to the front of the chest, where the springs terminate in pads like those of a common truss, but larger and less thick. The two anterior pads are fastened together by a strap, and further held in place by straps over the shoulders. The author asserts that the apparatus, when well constructed, can be worn under the clothes without betraying its presence. That it may fit the chest so accurately as neither to be uncomfortable or unsightly, and not to embarrass the respiration, it should be made to order for each patient. The pressure should, moreover, be applied where the emphysema is most marked, though those parts are generally the infra-clavicular regions. The action of the apparatus as an aid to expiration is readily understood; of course in inspiration the force of the spring must be counteracted, but this is practically no drawback, as in these cases the inspiratory forces are usually increased by exercise.

M. F  ris says: "I have used the elastic respirator in thirteen cases of emphysema. From the moment that the apparatus is fitted respiration is established, and forthwith the patient exclaims that his oppression is gone. He can then walk, go up stairs, and sometimes even run, with less fatigue." A patient entered the hospital at Brest for advanced emphysema, and with the aid of a double inguinal truss, improvised temporarily as a respirator, went about the house with comparative comfort. He soon asked permission to go about the town, but the truss caused such an apparent deformity of his person that he did not venture to wear it in the street. He therefore went without it, but after going three hundred yards or so was so oppressed for breath that he was obliged to invoke the aid of a nurse to return. He then put on his chest truss, sallied forth, and remained seven hours.

Stethographic observations show that the respiratory movements are enlarged and diminished in frequency while the apparatus is worn. It is claimed, moreover, that the invention has also the following merits:

After being worn for eight or ten days the prominence of the chest in the emphysematous regions disappears, and it becomes very difficult to determine by inspection alone the seat of the changes. Furthermore, asthmatic attacks are lessened in degree and frequency, a result not to be wondered at when it is remembered that inspiratory spasm is the characteristic of such attacks. Again, the tendency of emphysema to spread is checked, and it seems probable that the impediment to the pulmonary circulation resulting in engorgement of the right heart is diminished.

\* F  ris, *Bulletin Gen. de Therapeutique*, 1883, vol. cv., p. 104.

As for contra-indications, the author thinks that none really exist. A little time is needed for the patient to grow accustomed to the presence of his truss. The maximum benefits are to be looked for in subjects under middle life with emphysema of the upper lobes. Still the apparatus is worth a trial as a palliative in general emphysema, or in that form which is met with in old people whose costal cartilages are ossified. In one patient who had attacks of hæmoptysis before using the apparatus they were certainly not aggravated by it.

PULSATING EMPYEMA.\*

The writer has collected twenty-seven cases of this rare and interesting condition, four of which have been under his own observation. In three of these four, careful post-mortem examinations were made, and their results were so nearly identical that M. Comby is led to think the following physical condition necessary for the production of pulsating general empyema; the left lung, namely, must be thoroughly compressed and also adherent to the pericardium, in order that the cardiac movement may be transmitted through it to the fluid in the pleura. In ordinary cases of large effusion the lung is compressed toward its root, and the heart is forced independently toward the side opposite to the fluid, but in ordinary cases the fluid never pulsates; this can only occur when the pericardium and lung are adherent. The pulsation sometimes extends over a large area in the lower portions of the affected side, and is sometimes limited to a local swelling which has no constant position in the thorax. Cases are recorded in which the pus burrowed downwards and formed a pulsating tumor in the lumbar region.

With regard to diagnosis, the only affections which can well be mistaken for that under consideration are pulsating pneumonia, which is extremely rare, pulsating cancer of the lung, and aneurism of the aorta. As an aid which may be of service for the differential diagnosis in doubtful cases it may be mentioned that a murmur, so often heard over aneurisms, and not unknown over soft cancers, has never been observed over pulsating empyema. One would think there should be no great difficulties in the distinction between these diseases, and yet in several cases the abscess was allowed to open itself for fear that it might be an aneurism. One of these merits brief notice. A woman received a blow, and six months later began to complain of pain in the side; after a time a hemispherical tumor appeared at the left border of the sternum, between the third and fourth ribs, pulsating synchronously with the heart, and transmitting the heart sounds. An abscess was thought of, but aneurism being feared, the patient was kept in bed for three years, the tumor growing all the time in size. The skin finally inflamed, and the pus began to discharge, but a fistulous opening persisted for a long time, and six years after the pains in the side came on the patient was sufficiently recovered to resume her occupation as a washer-woman.

The prognosis as regards recovery is very unfavorable. The existence of pulsation shows that the disease is of long standing, and that the left lung has consequently contracted such adhesions that it cannot be expanded. Little can then be hoped from incision and drainage unless, perhaps, generous resection of the ribs be also practiced. The few instances in which good results have been obtained seem to have been examples of circumscribed empyema near the heart and transmitting its pulsation. "Although the prognosis is fatal it is not the same for all cases; some remain long stationary, and tolerate their effusion and pulsation for several years, the right lung preserving its integrity, but if the right lung is diseased or the seat of tubercles the end comes in some months or weeks."

\* Les Pleuresies Pulsatiles (empyeme pulsatile), Comby, *Archives Gen. de Med.*, 1883, November and December.

To sum up, pulsating pleural effusions occur only on the left side, are always purulent, indicate hopeless compression of the lung, and are incurable.

#### ANTISEPTIC INHALATIONS IN THE TREATMENT OF PHTHISIS.

English and German journals have of late years contained a number of articles advocating the more or less continuous inhalation of carbolic acid and other volatile antiseptics in phthisis, a method of treatment which is not unlikely to come more into vogue with the development of the doctrine of the bacillus tuberculosis. It is found that pure carbolic acid can be inhaled for hours from an oro-nasal respirator without causing irritation of the air-passages, and some observers, prominent among whom are Burney Yeo, Curschmann, and Fraentzel, are favorably impressed with the results. Dr. Hassall,\* of London and San Remo, has published several articles which tend to show that the application of volatile antiseptics to the respiratory tract by means of respirators and atomizers is inefficient. One of the methods pursued in his investigations was to charge a respirator with a known quantity of the agent, allow it to be worn for a fixed time, and then determine by quantitative analysis the amount of loss of the antiseptic in the form of vapor. The loss after periods of one and two hours was found to be comparatively trifling, and the sputum raised after the respirator had been worn never had the least smell of carbolic acid. He found, however, that when the agent is used on a series of cotton screens suspended in a room at a temperature of about 70° F. it is almost entirely volatilized. Acting on these experiments he has constructed at San Remo an inhalation chamber with a cubic capacity of 1,170 feet, one door and one window, no chimney or fire-place, but a register communicating with a small furnace. With the desire that this method of inhalation may be fairly tested, Dr. Hassall will allow its use to medical men of all nationalities in San Remo, so that any of their patients may make use of it under the observation and guidance of their own attendant.

#### ENDEMIC HÆMOPTYSIS APPARENTLY DUE TO A PULMONARY PARASITE.

Dr. Manson,† of Amoy, China, read a very interesting paper on this subject to the Medical Society of London. He finds that the expectoration of blood, generally in small quantities and very frequently, and bloody mucus is a common affection in Formosa and Japan, and on examining the sputum from some of these cases under the microscope he discovered the constant presence of peculiar ova, one two-hundredth to one five-hundredth of an inch in diameter, and containing no trace of embryos. After cultivating the ova in water with proper precautions for four to six weeks he was rewarded by seeing in nearly every ovum the development of active ciliated embryos closely resembling those of *Bilharzia* and other distoms. Soon after this period the embryo succeeds in breaking through its investment, and rushes through the water, assuming various shapes, with its cilia in constant motion, apparently in eager search of its intermediary host. Through a fortunate train of circumstances, for the detail of which we have here no space, Dr. Manson obtained a specimen of the parent worm, which after having been some time in spirit measured half an inch in length by a sixth of an inch in breadth, and a third of an inch in thickness. It was sent to Dr. Cobbold, who pronounced it a new species, and named it, after the discoverer, *Distoma Ringeri*. It seems probable that the parasite is communicated from one person to another in some way by means of water, and the affection appears to be a counterpart of endemic hæmaturia. China, as far as is

\* *Lancet*, 1883, i., 765. *British Medical Journal*, 1883, ii., 869. *Lancet*, October 6, 1883. *Lancet*, 1884, i., 106.

† *Lancet*, 1883, i., 532.



known, is free from the disease, which is a very chronic one. Dr. Manson thinks that the constant or repeated small bleedings cannot fail in certain cases to produce, in time, a state of intense anæmia, rendering the subjects of it very liable to attacks of dangerous forms of other diseases. Two patients were sent to him from Formosa, and he kept them in his house for some time for purposes of study, treating them by inhalations of atomized solutions and infusions containing quassia, kousso, santonin, turpentine, and sulphurous acid. By these means one patient was apparently cured, but the other was not benefited.

#### NITRITE OF SODIUM IN ANGINA PECTORIS.

We now know that other nitrites besides that of amyl dilate the smaller arteries and lower the blood tension. It has been found that nitro-glycerine is a valuable remedy in angina pectoris, while Reichert and Weir Mitchell have used nitrite of potassium for epilepsy, and shown that it has effects which are almost identical with those of amyl. Dr. Hay\* has used nitrite of sodium in one case of angina with marked good effect, complete relief following within two or three minutes after administration. In the same patient amyl gave only partial relief, and nitro-glycerine, though equally efficacious with the sodium compound, produced disagreeable throbbing in the head, which the latter did not. The effects of the sodium were also more lasting than those of the amyl. Of the pure drug one grain is probably as much as it is safe to give at first, but the pure drug is not easy to obtain. Dr. Hay found that a specimen obtained from a London manufacturing firm of the highest eminence did not contain more than thirty-three per cent. of the nitrite, the rest being nitrate. This fact should be borne in mind, and allowed for in case small doses prove useless. The drug is freely soluble in water. [It may be well to repeat a caution which has already appeared in print. In the last edition, namely, of Ringer's "Therapeutics," the dose of sodium nitrite is inferentially stated as *twenty* grains, an amount which might produce disastrous effects if the sample were pure. Drs. Ringer and Murrell† gave fifteen-grain doses of the impure drug to hospital out-patients, and reported the cases briefly, stating the disagreeable sensations produced in some patients. An outcry was made in the daily papers, and severe strictures were passed upon physicians experimenting on patients with drugs the properties of which are unknown. It was thought best to bring the matter to the notice of the government of the hospital, which formally exonerated Drs. Ringer and Murrell from all blame.—REP.]—*Boston Medical Journal*.

ON SOME MINOR AILMENTS. BY J. MATTHEWS DUNCAN, M.D., F.R.S., Physician-Accoucheur and Lecturer on Midwifery at St. Bartholomew's Hospital. Selected from the *Med. Times and Gazette*.

WHEN I use the term "minor ailments" to designate the subject of this lecture, I take the physician's, not the patient's, point of view. To her the matter in hand, however slight in the physician's estimation, is most interesting and important, and cannot be, without care, spoken of as minor. Such ailments may be painful and grievous while they last, but they do not destroy general health, and they are not fatal.

Patients are often very inquisitive into the causes and nature or importance of diseases, and physicians are sometimes too facile in naming them, or in concurring with patients regarding them. Here, as on many other occasions in the course of medical practice, the physician should be firm in adhering to pure truth, not forgetting that all kinds and degrees of falsehood, all half-true statements, even when made with good motives, all statements, true only as so many

\* *Practitioner*, 1883, i., 179.

† *Lancet*, 1883, ii., 766 and 880.

words, should be avoided, should also be abominable in his eyes. It is true, and never to be forgotten, that a lie is always a lie, and never does the least good, now or in the future. Always does harm, now and in the future. Never allow yourselves to be shaken in these principles by desire of any kind of time-serving. Great medical men have boldly taught that the physician may not only conceal the truth, but, in certain circumstances, declare a lie. I avoid mentioning the name of one most highly respected, who advises this course in the case of cancer of the liver, asserting that the entertainment by the patient of false views as to the nature or danger of his disease, will materially and favorably modify its course, and secure temporary ease of mind for him. The pathology, therapeutics, and morality are, I believe, all most bad; experience has taught me quite otherwise; and, besides, if you allow yourself to lie once, why not ten times? There are cases in casuistry in which you may be driven to make a statement that is not true, but they almost never occur in medical practice; and the only justification of this conduct is the avoidance of a graver falsehood, for there are degrees of importance of lies. You have it always in your power to be silent, and it is scarcely possible to construct a lie out of that negative. If you wish to impress your patient with a due sense of the gravity of her case, you may do so without bluntly surprising her with a terrible announcement, as by calling a consultation, or using some other such indicative or preparatory measure.

I make these statements preliminary to some remarks on minor ailments, because it is more frequently in them than in graver ailments that patients are injuriously, and, I am sorry to say, often cruelly misled.

I have said that patients are often ingenious and inquisitive as to causes: the physician is most anxious to forecast consequences. With this forecast or prognosis, so far as he is concerned, I have now nothing to do. But his patient is sure to ask questions regarding her fate, or to argue regarding the gravity of her case from his expressions, oral or other, and from his conduct. In every case a physician is instructing his patient regarding her disease; and if he instruct her badly, he may cause her much evil. In the case of minor ailments it is common for this evil to be produced by an exaggerated anxiety, or by a costly and perhaps fussy and frequent interference of the physician. Many minor ailments are in this way generated or aggravated, or rendered inveterate—cases that a little kindly consideration and careful conversation would dissipate, are changed from molehills into mountains.

You will meet with cases of amenorrhœa in healthy girls, whereof the cure is sought with an enthusiasm that is explained only by perhaps accidentally finding out that the patient or her guardian regards it as a disease of the highest degree of gravity. A woman with no uterine complaint whatever, and in perfect health, is told that her womb is displaced, and immediately she is transformed into a great sufferer eager for cure, willing to endure the martyrdom of enforced rest and local treatment to gain what can never be gained in that way; she has been badly instructed by her physician, and this bad instruction will render her return to health a matter of great difficulty, a result to be secured only by overthrow of her confidence in her previous instruction. Cases are quite common where women have great pain and misery, which are entirely “imaginary,” as they say, yet real, and which are cured at once by the assurance pressed into their minds that they have not cancer—by their abandoning an erroneous idea.

There are many minor ailments, chiefly in the forms of aches or pains, for which the best treatment is to coax the patient into neglect of them. Let them alone as far as possible, for the more attention is drawn to them the worse they will be, and the longer will they last.

To deal wisely and boldly with minor ailments, it is necessary that you should

previously make yourself well assured as to the nature—that they really are minor, and, if, possible, exactly what they are. Often you cannot ascertain what they are, while various conditions of them satisfy you that they are minor.

## NEURALGIA OF A LABIUM.

I have never seen any neuralgia more intense than that of the cord in the male. One case in a clergyman I can never forget, it was so very severe. In woman I have only seen it distinctly a few times. The worst case was that of a stout old lady liable to bronchitis and asthma. In her it came on only occasionally, but when it did come it was so severe as to cause much alarm; the pain ran along the cord, or rather the round ligament in the right inguinal canal, and was most severe in the corresponding labium. It was soothed by kind attention, hot bathing being generally used, and sometimes anodyne applications to the skin.

## COMMENCING HERNIA.

All pains about the external inguinal opening are not neuralgic, nor inflammatory. I remember well the case of a sensitive young lady whose pains had been very puzzling to her physician, who had reasons for avoiding strict local inquiries. She was indeed sent to me to have these inquiries made, because much and varied treatment by medicines and rest had failed to give any relief. The pain was confined to the region of the femoral opening on one side; rest removed it, exertion induced it, coughing made it worse; and a strong impulse was felt in the part by the hand applied when a deep cough was made. Knowledge of the seat and cause of the pain was nearly enough for its cure; and complete relief was got by wearing a truss. Cases of a like kind are not very rare.

## NEURALGIA OF BONE.

When a bone of the pelvis has been injured, the part, sometimes after complete recovery so far as manipulative examination is concerned, retains a morbid sensitiveness or weakness. It is not swollen, but it is liable to ache severely or be painful. Cases of this kind in bones of the limbs I have known to be successfully treated by laying the bone bare by knife, raising the periosteum, and gouging or chiselling off the surface of the affected part. In my cases I have not resorted to this, and I may best and most briefly tell you all I know of the matter by giving a few details of two.

A fine healthy young woman had a first labor, managed by a skilful accoucheur, natural in all respects, except that delivery was completed by short forceps. At the time of delivery nothing special was noted as to wounding; but the patient felt a deal of pain in the private parts, on the left side, during all her recovery. She got up, however, and was well and strong, but as soon as she began to walk, the pain in the left labium recurred, and was increased in severity as she increased the use of her legs. The pain was now ascribed to weakness, now to falling of the womb, now to ulceration, and was treated accordingly, but with no good effect. Careful local investigation discovered the labium to be internally cleft, and the deepest part of the cleft quite healed, healthy-looking, but adhering to the descending ramus of the pubes. The bone was scarcely tender, but whenever it was touched the patient at once, and again in subsequent examinations, declared that that, and that alone, was the seat of pain. The bone was occasionally tender after great exertion, as in dancing; it was always and exclusively the seat of the aching pain. The labium had been cut by the anterior margin of the left blade of the forceps,

and healing had taken place with adhesion of the cicatrix to the subjacent bone. Complete satisfaction as to seat and nature of the disease was half the cure. Avoidance of long walks and of much dancing, hot bathing at bedtime, tonics, iodide of potassium, were all used, and did not bring quick relief. It was not until these cures had been continued more than a year that the whole matter was forgotten. Now she never feels it.

A middle-aged woman, a clergyman's wife, was thrown out of a little pony phaeton and fell on her sacrum. After the accident she had continued pain in it for a long time; and the pain recurred after intervals of health, varying in length. When it came, she felt the part to be a little tender, but not swollen. Latterly, after some years, she was led to believe that now her suffering was not from the injury, but from some disease of the womb. Then she consulted me, and it was very easy to make out that the pain was in the bone, exactly where the injury had been inflicted. There was no uterine disease, and the conclusion was inevitable that the case was one of neuralgia consequent on mechanical injury. With assurance on this point she was quite satisfied, and went away with some directions as to the treatment when the aching came on.

Perhaps this disease should be called chronic osteitis, not neuralgia; I do not here attempt to decide.

#### RHEUM OF A SACRO-ILIAC JOINT.

This disease is common, and often mistaken as a sacrache, and is indicative of some uterine or ovarian affection. I know it well, for I frequently suffer from it, generally in the right, rarely in the left, less rarely in both. It is a rheumatic ache, sometimes nearly as commanding as a bad lumbago, produced by any bodily movement that causes pressure on or movement of the joint. When a woman has it, she attributes much importance to it, not as a pain, but as an indication of some latent internal disease of which she has alarm and dread, naturally fostered by ignorance. When she comes to you, you must carefully investigate it and give her good information and advice.

It is not enough to make out that the region of one or other or of both joints is the seat of pain, for ovarian disease may cause that; nor is it enough, even if, in addition, the pain is aggravated by the erect position or by walking, for that may be also a reflex of ovarian disease. But if, still further, you find the joint is tender, perhaps a little swollen, and if you find that the least movement of it causes pain, you may be pretty well assured; and you hold the case well ascertained if you find, on examination of the pelvic excavation, that there is no disease to account for it. In this affection your examination discovers ordinary, not surgical or morbid, mobility of the joint; and when describing looseness of the joint I told you how to make out its mobility. One source of error in this examination you must note, namely, that the pain is induced by pressure on the anterior iliac spine, and the woman may say the pain is there; but with care, you make out that the pain is only produced by such pressure on the anterior iliac spine as moves the bone at the sacro-iliac joint, and that pressure on the ilium that does not move the joint is not painful.

#### NODES OF CONNECTIVE TISSUE.

These are indurated masses, not very hard, irregularly rounded or spindle-shaped, of size varying from that of a bean to that of a hazel nut, generally painless, sometimes tender. There may be only one, or several may be in the same neighborhood. They have not the characters of neuroma. They may disappear as they come, without known cause.

This disease I have rarely seen, and, as far as I know, it has no direct prac-

tical importance, except when the little masses are tender, or when the patient happens to find them, and becomes anxious as to their cause and nature.

We had lately a case in "Martha." The woman had been long in the ward, suffering from parametritis and the albuminuria which occasionally accompanies it. She made a good recovery, and before going away called attention to little, tender lumps. They were three in number—two just above the posterior superior spine of the ilium on the right and one a little higher on the left.

I have seen a case in which they were situated in the sub-cutaneous cellular tissue over the sacrum and adjacent part of the hip. In another the node was the size of a pea, and situated a little above the middle of Poupert's ligament.

#### PERINEAL SWEATING.

In inveterate cases, however much they may be minor, it is necessary to enter minutely and carefully into every particular, and this is true of none more than that of "whites." A patient will add, as a tail to her case, that she has whites, or she will say she is cured, all except whites; or she will complain simply of very bad whites. By this she implies that she has a large amount of unhealthy discharge from the vagina, white or nearly white, and this she fears, understanding that it is very dangerous, or, at least, weakening. Probably, also, she has used many diverse lotions without avail for a lengthened period.

Now, it is common to find that this case has been quite misunderstood, and consequently mismanaged; examination by the speculum discovering no mass of mucus or the matter of whites—no such quantity as would cause discharge. It is, indeed, not rare with such complaint to find the passage drier than natural. Such women it is sufficient to tell that they have no whites, that there is nothing to be cured, that they should give up the use of injections of every kind, and it is good to add that, if all proves not to be right, the patient should return with the whites present, and with the diapers worn, or any evidence of the presence of the disease.

When she comes back you may find that she has had some whites after a long walk or long standing—a result which is scarcely to be deprecated. Or you may find some superficial irritation of the vestibule or vaginal orifice, from which a white or non-purulent discharge has come, and which may be easily cured by an appropriate application; and the same may be said of some eczema of the vulva. Frequently all she produces is a cloth damp with perineal sweat, and often also stained brown by it. Lately we had in "Martha" an aggravated case of this kind from a distant county. As we could find nothing, the woman was pressed to produce the evidence of her disease for which she had been long treated, and which so alarmed her as to make her glad to encounter the inconvenience and expense of coming to the hospital. She said it came on when walking, and she was accordingly sent to walk; and with an air of triumph, she then showed a diaper with a small brown stain of feculent odor. The woman was quite simple and ingenuous, and believed that this stain was vaginal whites. It was plainly some brown mucus from the anus.

When women get fat and sweat freely they often have such moisture about the anus and genitals. This is very disagreeable to them, and, unless correctly instructed regarding it, they are easily induced to believe it is morbid, and the result of vaginal or uterine disease. Both men and woman, however careful and cleanly, have their linen moistened, and often stained brown, especially if they have walked much; and such discharge a woman is easily led to believe to be whites, and an indication of disease of the womb.

Sudden gushes of watery fluid on the linen are sometimes otherwise explained. Not very long ago a patient consulted me for this, believing that it came from an ovarian cyst, and required constant treatment to prevent the

cyst closing. I could find no disease by local examination, but I was also told that when it occurred the patient was very alarmed and nervous, and this led me to suspect that it might be urine. The fluid was collected in a cup, and found to have all the qualities of urine. The diagnosis communicated to the ingenuous patient that her disease was merely nervous discharge of urine was enough for her cure, and she went away rejoicing.

But I must further add that some sudden copious watery discharges I have been quite unable to explain, and have tried to satisfy myself by supposing they were from the glands of Cowper. The neck of the womb may suddenly secrete copiously, but the secretion is very viscid and not in such large quantities, so far as I have observed, as to explain the gushes I am speaking of.

Cases of this kind may be sometimes minor examples of hydrops tubæ profluens. This is a disease probably more frequent than is generally supposed, but certainly very rare in its distinct and greater forms. A case lately came under my notice where the gushes of watery and slightly viscid fluid were great, and had a general history, as follows: Gradually increasing hypogastric pain and general constitutional disturbance, then copious flow from vagina and relief for a varying length of time. When the woman was at ease there was to be found only an enlarged uterus; when she was in pain and before the discharge there was distinctly connected with the uterus and lying on its left side a large and increasing tense and somewhat tender cyst.

#### SACRACHE AND BACKACHE.

There is no more common, and, therefore, no more important symptom of uterine disease, and especially of disease of the neck of the womb, than sacrache. The pain is dull, or an ache rather than pain. It is situated at or near the base of the sacrum, and, referring to it, the patient puts her hand to the part. I say with emphasis, "at or near," and it is desirable to make this more definite. A pain below the middle of the sacrum is not at or near, and a pain above the middle of the lumbar spine is not "at or near." Such pains and aches do not point to the womb as the characteristic sacrache does, but the characteristic sacrache only points in that direction. It is not in itself nearly sufficient, not even strong evidence of disease of the womb. Occurring in a virgin, it would not alone, unless very severe and inveterate, lead you to make an actual examination of the womb.

Other backaches, that is, pains in other regions of the back, not the sacrache, may accompany uterine disease, but do not point to the womb, are not symptoms rationally held as indicating womb disease. Unfortunately women are at present so under the influence of bad medical instruction that they regard all pains in the back, from the occiput to the coccyx, as nearly sure indication of uterine mischief, and demanding uterine treatment.

The sacrache of womb disease may be constant, but generally it comes and goes. Frequently it is dispelled by lying, is felt on going to bed, and has disappeared before morning, and long standing makes it reach its highest pitch, then it is otherwise, that is, when the ache is worse in the morning before getting out of bed or is relieved by walking. Then it is certainly not uterine.

I have said that you must not regard all sacraches or other backaches as uterine. They are common in men and in women. A weakly woman who attends to all her pains can do no standing or walking without backache, and often it is a sacrache. Especially if she has a long back will she suffer in this way.

The pains liable to be confused with real sacrache are all in the lower back about the lumbar spine. It is only such that might mislead any rational physician. Regarding them, you will get some light from noticing the causes of the same pains in men. Now, I find that weakly men are liable to these aches, sacral or lumbar, on walking or standing, and in many they are produced by excessive venereal indulgence.

## ORIGINAL CORRESPONDENCE.

## HEPATIC ABSCESS.

AUSTIN, TEXAS, March, 1884.

*To the Editor of Gaillard's Medical Journal :*

DEAR SIR : At your request I have ascertained the following facts in regard to the life and death of Dr. J. W. Stalnaker, who died in this city, November 11th, 1883.

He was born near Union, Monroe County, West Virginia, on the 17th August, 1831, and was raised in his native State, graduated in medicine at the University of Pennsylvania, March 31st, 1855, was a surgeon in the Confederate service during the war, at the close of which he located in Pulaski County, Virginia, where he married Miss Mary C. Snow, who died during the year 1870, leaving two small daughters. Here he pursued the practice of his profession, until his removal to Austin, Texas, in 1871.

At his new home he speedily acquired an extensive practice, and in 1872 married Mrs. Black, who was a lady of culture, and was highly related in this community. Four additional children were added to his family—two girls and two boys—the oldest of whom, a little girl, died but one or two years before her father.

From 1873 to 1878 he was City Physician of Austin, and was ten years employed by Federal authorities in this district to attend United States prisoners. He ranked very high in the masonic fraternity, and had many warm personal friends. Eleven months before his death he was attacked with dysentery of severe type, which prostrated him and confined him to his bed several weeks, and after this he never fully recovered; he was repeatedly annoyed with some bowel trouble, principally with looseness and tendency to diarrhœa. This state of affairs existed to within a short time before his death. During July last he visited relatives in Virginia, hoping that the rest and change of climate afforded might lead to restoration of his health. He returned in about one month, apparently very much improved. But I am informed by Mrs. Stalnaker that he was all the while a great sufferer, with severe pain over the region of the liver, and that he could not lie on that side: However, he soon grew worse, and was confined to his bed until his decease. At times the pain was very severe, requiring anodynes for relief. Hectic fever, followed by profuse sweats, and often attended with rigors, ensued.

He was attended by Dr. Swearengen first, he afterwards being assisted by Drs. J. W. McLaughlin, J. M. Litten, T. D. Wooten, and A. G. Stalnaker, of West Virginia, brother of deceased, other physicians, including the writer, calling at times socially to see him. The hepatic abscess, from which he died, did not point toward the external surface,

and did not fluctuate, if at all, below the ribs until few days before his death.

The question of using the aspirator was discussed by the attending physicians, but the operation was not held in much favor, at least by a part of them, as Drs. Swearingen and McLaughlin, but a short time before, had a case where the aspirator was used, but without checking the pus formation. After repeated evacuations of the matter, the patient died. Dr. Stalnaker objected to the operation unless chloroform was used to produce insensibility. He was so much exhausted at this time, it was considered unwise to use an anæsthetic, so that the aspirator was not used. I believe the weight of opinion here is in favor of the trocar in these cases, followed by insertion of drainage tube in order to maintain constant drainage. Before death the existence of the abscess was not definitely determined. It was thought that fluctuation could be felt between the ribs by percussing at opposite sites on this side of the body at the same time so as to produce this result, but this was uncertain. The treatment was of constitutional and of general character, mainly supportive. His temperature was rarely above 102° F., but was several days before death as low as 97°. He seemed to recognize the fact that he must soon succumb to his disease, and requested his wife, as there was some uncertainty about his ailment, and in order to give full development of his condition for the benefit of his fellow-man, that she consent to and obtained her promise to have an autopsy performed on his body; remarking that it would not hurt him, but possibly others might be relieved of the intense suffering he had experienced thereby. Consequently, on the night of the 11th of November, 1883, about sixteen hours after death, Dr. J. W. McLaughlin, assisted by Dr. Litten and myself, made a post-mortem examination of the body.

The liver was but one vast sack containing pus; the entire organ was involved in the disintegration. The quantity of matter was not measured, but was commensurate with the existing condition. The other organs, so far as examined, were healthy. The aspirator or trocar either would have been useless, unless used during the early stages of his disease, and, as remarked before, it was concealed by the ribs, so that nothing short of an exploratory examination by the aspirator during this commencing state would have determined the cause. This has been done here unsuccessfully, where it was pretty certain that an abscess existed, followed by intense suffering, and evidently hurried the fatal result. In the case under consideration there were no physical signs early to point to the latent trouble.

And now some difference of opinion exists as to how long the abscess existed. Some think it resulted from embolism of some of the vessels of the liver after the dysentery, and existed in reality only a short time before dissolution. I have serious doubts of this, and think it possible that this insidious disease may have lurked long in its favored



abode, and have been the cause of all symptoms, including his previous bowel disorders.

Thus passed away a man celebrated for his skill, revered for his social qualities and kindness of heart, beloved alike by the poor and rich, never oppressing any one, but was largely prevented from accumulating riches by his liberality to the destitute.

It was his delight, as it is with many good physicians, to extend the helping hand where most needed, and many have been the beneficiaries of his charity, extended not only in the kind offices of his profession, but also in a pecuniary manner.

Relating to disorders of the liver, I will refer to the case of a negro, aged about 35 years, male, who died in the City and County Hospital, when I was assisted by Dr. Burt, of this city, in performing an autopsy of his body. The liver was extensively hypertrophied, passing entirely over and beyond the stomach, taking up considerable space on left side of the body, leading to inflammatory adhesions and deposits, due to its forcible displacement of tissues on the left side of the stomach. The tissue of the liver was indurated and uniformly enlarged, and colored with bile pigment, making it golden yellow.

Before death there seemed to be a uniform tumor, as large as a woman at six months of gestation, where the stomach should be, dull on percussion and without fluctuation. Suspended above the umbilicus, apparently as much on one side as the other, more prominent in the centre. The abdomen below was soft, and presented nothing unusual, but contrasted prominently with the hard large mass above it. Some œdema of the lower extremities existed. I mention this case that it may be considered in the differential diagnoses of enlargements about the stomach.

Respectfully yours,

J. CUMMINGS, M.D.

ONANCOCK, VA., March, 1884.

DEAR DOCTOR: In your JOURNAL of February, 1884, appears an article from the pen of Dr. W. B. Giddings, of Maine, relative to "The Treatment of the Placenta after Delivery;" the gist of his logic being that an invariably contracted uterus, insured slightly by art, was invariably followed by expulsion of the placenta. In his experience of "six years," and "with not a single accident or a delay of more than twenty minutes, with a single exception, and that was thrown off at the expiration of fifty minutes with no other inconvenience than weary waiting."

This will all do very well for natural cases, for Dr. Hodge says: "In natural labor it will be sufficient merely to facilitate delivery by increasing the contractions of the uterus and the voluntary efforts of the mother."

I am not content unless a womb is firm *before* and *after* delivery of the placenta, and I believe its expulsion is generally capable of being ac-

complished by nature, in the main, in normal labor, but if from any cause it ceases, or fails to be so, how long are we to continue the "weary waiting?"

I accept the axiom accredited to Blundell, that "Meddlesome Midwifery is bad," but there are times when we cease to be "meddlesome," though actively engaged in assisting nature.

Has the Doctor never had a case in his vicinity where the womb was contracted, the placenta had passed from the uterine walls, but positively remained (if unassisted) in the vagina?"

Dr. Hodge says: "If, therefore, this body be found in the vagina, a bearing-down effort should be made for its expulsion, as, of course, nothing can be accomplished by the uterus. Inexperienced physicians have waited during hours, and even days, for the recurrence of uterine pain, when a little exertion of the mother, or slight assistance from the practitioner, would have immediately finished the process."

Has he never had a case where, though the womb hugged the placenta as it were, still there was hæmorrhage which yielded after delivery of the mass?

Again, has he never had a case of partially, or wholly, adherent placenta, where one hour, or even three hours, after delivery of child there was no separation until actually severed by art? Now, where this tenacity is not only physiological but pathological, what is to be done? Either leave the woman "uncleared," or scientifically separate the uterine embrace. Which?

Truly yours,

EDGAR W. ROBERTSON.

SKOWHEGAN, MAINE, March 4, 1884.

DEAR DR. GAILLARD: For stopping profuse bleeding from a wounded artery, I have, on several occasions, made use of two pieces of common roofing shingle, of convenient size. For the radial artery at wrist of a common-sized man I make them four inches long by one and a half inches wide; drill with my pocket knife a hole near each corner, pass a string through the holes in the end of the two pieces, and tie them together about one and a half inches apart. Place over the artery lengthwise, in the wound an olive-shaped compress of sole leather or wood, one and a half inches by one inch by five-eighths of an inch, rounded on under side, somewhat like the palmar surface of the first joint of the thumb; place the piece of shingle astride the radius over the compress, and draw the free ends together with a string through their holes until the bleeding stops, and if it does as well for you as it has for me, you will not, at the second dressing, exchange it for anything else. By using elastic bands instead of twine, it would be useful in making pressure over aneurisms.

In popliteal aneurism, the piece to go over the patella may be split in

narrow slips, and kept in their places by pasting a piece of muslin over the inner surface of them. The principal advantages of this "pig yoke" are: It is readily obtained, and does not interfere with the general circulation of blood in the parts as do the ordinary tourniquets. If the device is as new to you as it is to me, you may give it in your valuable JOURNAL.

Very respectfully,

G. A. WILBUR.

PORTSMOUTH, N. H., March 17th, 1884.

*To the Editor of Gaillard's Medical Journal:*

DEAR DOCTOR: I send you the "Health Monthly," one of those abominable publications that ought to be suppressed and should come under the "Comstock laws."

I hope you will show it up in your next issue. It came addressed to my wife, and might have found its way into the hands of my daughters had I not secured it in time. Have we no protection against these vile sheets!

The only good thing in it is the "fling" which we justly deserve about the mixed State Board. This is the fruit of the New Code—the fruit of abandonment of our old conservatism, the opening wedge we have given to homœopathy—all under the miserable guise of liberalism.

I notice in your February issue the note on "Physicians' and Lawyers' Fees." It must be ever thus, if we go on lowering the tone of the profession by giving up ethical points, and reducing the profession to a trade by specious methods of advertising. If we cannot adopt the English plan of taking the fee at the time of the visit, why not suggest that a scale of prices be established by the American Medical Association for ordinary cases, and that extraordinary prices be charged for extraordinary cases, as the lawyers do? With the present sliding scale of fees, from 25 cents to \$10 a visit, the public, and our patients, are too apt to value our services at the lowest sum, and pay or not, as they please. Now, if we had a cash value commensurate with the service, instead of sending in bills like tradesmen, patients would be more apt to pay at once, as few would care to pay nearly double for the sake of a few months' delay. Some such arrangement as this might do:

An ordinary visit, cash \$2 to \$5. Night visit, \$3 to \$10. After 6 months, \$5 per visit. After 1 year, \$10.

	<i>Per visit.</i>	<i>Single payment.</i>		
	<i>Cash.</i>	<i>Cash.</i>	<i>6 months.</i>	<i>1 year.</i>
A case of Gonorrhœa . . .	\$5	\$25	\$40	\$50
Syphilis . . . . .	5	50	75	100
Measles . . . . .	2	30	50	75
Scarlatina . . . . .	2	30	50	75
Bronchitis . . . . .	2	30	50	75

And so on for each disease. Many a man would rather have a single

payment of \$30 for a case of measles than to make 30 or 40 visits at \$2 each and wait months for his pay, and many would rather pay a lump sum at once than be charged 30 or 40 per cent. more by having a bill sent in every six months or year. You may smile at the idea, but really something must be done for the poor struggling medicos, who cannot afford to wait months for their pay and are then expected to take the smallest fee. I merely throw out the very crude suggestion.

Faithfully yours,

J C.

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## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—ED.]

### CHICAGO PHILOSOPHICAL SOCIETY.

Dr. S. V. Clevenger, Special Pathologist of the Cook County Hospital for the Insane, read a paper on insanity before the Society, January 19, 1883. He considered insanity from the standpoint of the alienist, who comes most in contact with the insane, and the problems suggested by their existence. The following retrospective and prospective generalizations, he said, are afforded from this vantage ground:

1. Scientific inquiry into the causes, phenomena, and treatment of insanity has resulted in an increased number of recoveries, more humane treatment of the insane, and enlightenment as to the prevention of insanity.

2. We are indebted to European research for the greater part of our knowledge of insanity as a disease, and that comparatively little has been done in America to forward psychiatric studies.

3. Popular conservatism due to lack of information on these subjects is the cause of the national apathy in this respect, but eventually an activity in the prosecution of these studies will prevail in the United States unsurpassed in any other part of the world.

Insanity is the inability to be impressed and to conceive quantitatively and qualitatively enough to guide actions in harmony with the individual's age, circumstances, and surroundings, and the failure to properly co-ordinate impressions and frame logical conclusions and actions, except when occurring in the course of sleep, trance, somnambulism, coma, or simple epilepsy, hysteria, and chorea, or during any mental abstraction. But the futility of making precise relative definitions is well known. No matter how thoroughly the pathology of disease of any kind may be known, disease itself is incapable of definition.

The many forms of insanity frequently blend with each other confusingly, but in the main Spitzka's classification is justified by well-defined cases, such as simple mania, simple melancholia, katatonia, transitory frenzy, stuporous insanity, primary and secondary confusional insanity, primary deterioration, terminal dementia, senile dementia, hebephrenia, parietic dementia, luetic dementia, dementia from coarse brain disease, delirium grave, alcoholic, hysterical epileptic and periodical insanities, idiocy, imbecility, cretinism, monomania, traumatic, choreic, post febrile, rheumatic, gouty, phthisical, sympathetic and pellagrous insanities.

After reviewing the history of insanity, and the cruel treatment practised upon patients until even within the last few years, the lecturer paid a tribute of praise to Miss Chevalier, our energetic, enthusiastic lady who has done much toward introducing a reform in the treatment of the insane. The present non-restraint measures were summed up as follows, by Maudsley: "Its principle is to avoid a meddling interference; to make all the surroundings of the poor lunatic as tranquil, as orderly, as gentle as may be consistent with his proper care; to counteract the commotion in him by the absence of commotion in what is around him. The lunatic cannot, any more than the sane person, resist the steady influence of his surroundings; he assimilates them unconsciously, and they modify his character for good or for evil." Dr. Clevenger dwelt specially on the duties of a superintendent of an insane asylum, which he thus summarized: "The duties of the superintendent of an asylum are similar to those of the landlord of a giant hotel, and, in addition, he is the principal medical officer. Every alienist of note has given his opinion that the superintendent of an asylum should be supreme in command in the asylum, and that no one disloyal to him should be allowed to remain an instant." Referring to the legal view of insanity, he said: "The strangely erroneous notions of insanity extant originate and perpetuate a very defective jurisprudence. The insane must either be held responsible for his actions, or he must not be. If not, then the question arises, How much insanity is required to exempt one from the consequences of having committed a crime? The ability to distinguish right from wrong is no guide as to responsibility, for an epileptic may be at one time in full possession of his faculties and at another absolutely unconscious of what he does, and epileptics afford us the most terrible form of mental alienation. The literature of this subject is abundant, but we may only glance at portions. The English law seems fair enough which places responsibility if at the time of committing the offense the accused knew right from wrong, but in the determination of this point juries will hang the more insane, and let the less insane escape, often acquitting one and condemning another, both having the same form of insanity and degree of responsibility, and even the knowledge of right and wrong does not bear scientific scrutiny as a means of judging responsibility."

He then went on to speak strongly against an "aggravating feature of law courts"—expert testimony—his opinion being that "as long as men are as they are, physicians as well as others will, for the sake of the fee, and without the least preparation or fitness, enter the courts as experts and pass upon subjects of the nature, literature, and facts of which they are ignorant; and again, men of special training will prostitute their callings by testifying with partisan zeal, suppressing the truth as they know it, and misleading the jury as to facts. This state of things should not be countenanced. The expert may coach a lawyer, but should not appear as a partisan. He should appear as an expert to tell the truth as he knows it, regardless of how it may affect the case. If his honest convictions are with one side or the other, he may be engaged by the defendant or plaintiff; but having the confidential communications of one side, he may not subsequently appear against that side. And the presentation of the hypothetical case is not a correct method of eliciting the truth, for it is impossible to embody all the details necessary to a full understanding of the case by such means. Dr. Ray thought the expert should be asked: "Do you give your time and attention continually to a particular branch of medicine, and is that mental or psychological medicine? and that opinions should be given in writing, and read to the jury without oral examination. It would then be deliberately prepared, its explanations well considered, and its full force and bearings clearly discerned. It would go to the jury on its own merits, no advantage being gained by either party by the superior adroitness of counsel in embarrassing the witness and

pushing his statement to a false or ridiculous conclusion." The animus of the expert, with his dishonesty or incompetence, would thus be disclosed.

The Illinois law provides that the sheriff, gaoler, or other suitable person may detain insane persons until trial. Both gaoling and the trial by jury of the insane are processes unworthy a civilized age and people. The Board of State Charities has already taken proper ground in the matter when it says: "Why not leave the matter, as in many of our States in the United States and as in England, to be dealt with as a scientific professional question for the medical man and pathologist, and not for the finding by a verdict of jurors, based on slight evidence? Is it essential to liberty and to the maintaining of personal freedom from undue restraint that the law should exist in its present form? A writ of habeas corpus will always lie as a writ of right to inquire into the cause of the detention of any party in a hospital for the sane or insane. It is believed by many that our present jury law was superinduced by undue excitement growing out of one case, which was by no means a clear case of misapplication of the rigor of the law. It is required that the near relatives—and when none exist, then a respectable person of the county—must petition for the trial of the person's sanity or insanity, and it is obvious from the law that the proceeding is for the welfare of the individual supposed to be insane. It is not a criminal charge, and yet you treat the matter with the formality of a charge or trial for crime; in place of having a commission or board of physicians, you try the person and render a verdict, from which you provide no escape by his individual act that would be legal."

As to causes of insanity, Dr. Funkelburg, of the Russian public health commission, claims that in that country lack of intellectual culture, insufficient food, unhealthy dwellings, are causes, but abuse of alcoholic liquors sends 20 per cent. to asylums and 40 per cent. to gaols. Lord Shaftesbury, who was chief of the Lunacy Commission for fifty years, said that 50 per cent. of insanity in England was caused by intemperance. According to Lumer, 50 per cent. of the idiots and imbeciles in Europe had notoriously drunken parents. Michet figures hereditary influences as predisposing to one-half of all insane cases. Guslain claims heredity operative in 30 per cent. of cases, and Anstie ascribes the origin of heredity to want of education, mental vacuity, and excesses, particularly alcoholic.

A good instance of the misery entailed by a degraded ancestry is afforded by the Jukes family, of New York. Margaret Jukes, in six generations, had 709 descendants, all of whom were thieves and murderers or idiots. Exciting causes in one generation became predisposing in the next. Dr. Page, of the Connecticut (Hartford) Retreat, analyzed 2,333 cases and found one-half due to causes largely under the control of man. Hereditary tendencies were at the bottom of most cases, the bad habits of parents becoming diseased conditions in the children. Head injuries and sun-strokes are prolific sources of insanities. Diseases, such as scarlatina, meningitis, small-pox, rheumatism, gout, lues, epilepsy, chorea, hysteria, predispose to and directly cause insanity. Pellagrous insanity is a form produced by eating diseased corn. Morphine, chloral and other poisons sometimes cause loss of mentality. Emotionalism, such as is engendered by too much novel reading and failure to cultivate reasoning faculties, is a cause. Consanguineous marriages often predispose offspring to weak mental condition. Change of environment, domestic troubles and grief, roughly estimated, cause twelve to fifteen per cent., but pre-existing mental instability may be supposed in many such cases. The two extremes of mental stagnation, with sensual degradation upon the one hand and gloomy fanaticism on the other, and dwelling too long and intently upon religious questions, especially when presented in narrow and exclusive forms, drive to despair or perilous exaltation of the feelings.

In conclusion, Dr. Clevenger made the following suggestions and remarks:

“The resident staff for a 500-population asylum should consist of medical superintendent, three assistant physicians, one pathologist, one female physician as gynæcologist, one clinical clerk. A consulting staff to visit the patients weekly, or, as suggested by the superintendent, to consist of one specialist in skin diseases, one eye and ear physician, one surgeon. Internes could be selected from medical schools, among those wishing to fit themselves in psychiatry, and the clinical clerk is, in Europe, selected on that basis. There need be no fear of increased expense in such an arrangement, for the consulting staff would serve for the honor of the positions, and internes receive no salaries from any hospital fund. The additional cost for board of the extra medical men could be afforded for ten years by one year's curtailment of unnecessary building details. Millions of dollars are expended in unwise architecture, absolutely lost by the necessity for being undone in time. At Danvers, Mass., a palace asylum was undergoing construction, while the insane of the State, awaiting its completion, starved and were frozen in dungeons of almshouses, and were without any medical attendance.

“The coming century will witness as great an advance in the methods of treating the insane as this century has surpassed the eighteenth century in their treatment. The time is coming when, instead of millions being expended for palatial asylums, a few thousands will suffice for comfortable hospital construction, and the surplus be expended in curative measures and in the search for the causes and the means for the prevention of insanity. Asylum officials will be selected through special fitness for their vocations. Instead of its being as much as one's position was worth to ask for a post-mortem case of instruments, every hospital for the insane will become the nucleus of a busy faculty of investigators, and even six months' work on the part of a competent physician will not be considered too much to devote to a single post-mortem examination, with the occasional result of producing a Virchow, who could see more in a pathological specimen in one day than multitudes of other observers in a lifetime. The methods of research have been established, the course to pursue to arrive at definite results is now known, and the means and workmen are coming, for with the dawn of the twentieth century the exactness of the knowledge already evoked will have advanced by that time to an extent that will open the eyes of the meanest of the multitude to the necessity for more thorough investigation, not only of the brain but of the entire body, in connection with the *intra vitam* history. There is nothing like the realization that a thing pays in America to induce activity.”

Dr. Garrison echoed the plea of Dr. Clevenger for more scientific study of psychiatry.

Dr. Kiernan said that the condition of the insane in the almshouses was as much a shame and disgrace to Illinois as her lunacy laws, which last exposed the sane to danger from the insane and kept the insane from receiving the early treatment which was their due.

#### **PATHOLOGICAL SOCIETY OF LONDON, ENGLAND.**

##### **THREE CASES OF CALCULUS OF THE PANCREATIC DUCT.**

Dr. Norman Moore described the above as follows: 1. A pancreas with a dilated duct containing numerous irregular calculi of carbonate of lime. The duct was most dilated near the head; there were stones in all parts of it, but it was nowhere completely closed. The patient was a man aged forty, who died of diabetes. The bile duct was pervious, and there was never any jaundice. 2. A pancreas with its main duct slightly dilated and containing a calculus of

irregular shape, around which there was a large abscess in the head of the gland. This abscess pressed upon the orifice of the bile duct sufficiently to produce great distension of the gall bladder. The patient was a man aged forty-three, who died in St. Bartholomew's Hospital from an attack of pleurisy following gouty symptoms. 3. A pancreas with great dilatation of the duct throughout its length. Near the orifice the duct was blocked by a small calculus of irregular shape. The whole gland was very hard, and to the naked eye showed a great increase of connective tissue. The papilla in the duodenum was enlarged, and the hardened tissue of the pancreas had constricted the bile duct so as to cause complete obstruction. The liver was of a deep green color, intensely hard, with a general dilatation of its ducts, which everywhere contained watery bile and bile gravel. The glands in the hilum of the liver showed no new growth, and a careful search showed none anywhere in the body. Sections of the pancreas, under the microscope, revealed an extensive increase of connective tissue, many bands of old growth traversed the gland, and there were patches of the nuclei of a more recent connective tissue growth. Some normal acini were visible, but most of the gland cells were more or less atrophied. No cells like those of the acini were to be found beyond their proper limits, nor were there any other signs of carcinomatous growth. The morbid change was of the same kind as that found in the liver of cirrhosis. Dr. Wickham Legg had shown that dilatation of the hepatic ducts produced an increase of connective tissue throughout the liver. In this pancreas a gradual dilatation of its ducts, due to occlusion of its main duct by a calculus, was probably the cause of the connective tissue growth throughout the gland. Cirrhosis of the pancreas, as a result of calculus, had not been described before. The patient was a man aged sixty-four, who was admitted into St. Bartholomew's Hospital in July, 1883, and died in October. He had been ill for a month, and jaundiced for three days before his admission to the hospital. The liver was not then enlarged, but on August 13th was distinctly increased in size. During his illness the patient had many attacks of vomiting, but no colic. The speaker had exhibited to the Society, in 1882, two cases of abscess of the pancreas; the present was the only one which had been met with at the hospital since then. In the three cases shown that evening there had been jaundice in only one, the last, and colic in none, but in all three attacks of vomiting were noticeable features.

Dr. Wilks asked if Dr. Moore attributed the diabetes in his first patient to the pancreatic affection, and reminded the society that at the commencement of the debate on diabetes he had mentioned the subject which had since then been dealt with by Dr. Lancereaux in a separate treatise.

Dr. Burney Yeo asked if disease of the pancreas had been suspected during life in any of the cases.

Mr. Henry Morris had seen pancreatic calculi associated with calculi in the mesentery. Dr. Johnson had put together all the recorded cases in the *Journal of Medical Sciences*.

Dr. Hadden had recently found a pancreatic calculus in a case of diabetes.

Dr. Mahomed had twice found diabetes associated with pancreatic disease; one was a case of lipæmia, the blood clots being of a raspberry cream color.

Dr. Goodhart mentioned a case of fatty degeneration of the pancreas which he had seen associated with diabetes.

Dr. Hale White had examined the records at Guy's Hospital, and found that in three or four cases of diabetes it was stated that the pancreas was wasted or undergoing fatty degeneration.

The President observed that the discussion had brought to light more facts in regard to the pancreas in diabetes than the debate on that subject had succeeded in doing.

Dr. Norman Moore, in reply, spoke of the difficulty about being certain, post



mortem, that the pancreas was diseased. The diagnosis was very difficult; perhaps repeated vomiting without evident cause was a sign of some value. He had not seen any case quite resembling what Mr. Morris had spoken of.—*Times and Gazette*.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, LONDON. January, 1884; JOHN MARSHALL, F.R.S., President, in the chair.

ON THE DIRECT TREATMENT OF SPINAL CARIES BY OPERATION.

A paper by Mr. Frederick Treves on the above subject was read and discussed. Mr. Treves contended that the gravity of spinal caries depends not so much upon any special pathological feature in the process as upon the depth at which the disease is situated, and its inaccessibility to the usual operative procedures applied to caries elsewhere. Diseased bone cannot be removed from the vertebral bodies, and the morbid products, having to travel a great distance in order to be evacuated, are apt to induce immense purulent collections. These collections are usually opened at a point remote from the original seat of the disease. In the operation proposed by the author the anterior surfaces of the bodies of all the lumbar vertebræ and—with some reservation—of the last dorsal vertebra, can be reached from the loin. A vertical incision is made near the outer edge of the erector spinæ; the sheath of that muscle and the quadratus lumborum are cut through; the psoas muscle is incised and the vertebræ reached by continuing the operation along the deep aspect of that structure. The details of the procedure are fully described. By means of this operation the vertebræ can be readily examined, carious or necrosed bone can be removed, a ready and direct exit can be given to all morbid products; an abscess situated in the psoas muscle or in the lumbar region can be evacuated while it is yet small, and before it has led to a huge abscess cavity. If a large psoas or lumbar abscess exists it can be evacuated at its point of origin, and at a spot that, in the recumbent posture, corresponds to its most dependent part. If Hueter's statement be true, that the two vertebræ most frequently attacked by caries are the last dorsal and first lumbar, the operation should be capable of frequent application. The author details three cases in which he performed this operation. All the patients made a good recovery. In one of the instances he evacuated at its point of origin a psoas abscess containing forty ounces of pus, and removed from the body of the first lumbar vertebra a large sequestrum measuring one inch by half an inch. The immediate improvement in this patient's condition was very marked. In another case the psoas abscess had been opened in the thigh some months previously. By this operation a counter-opening was made at the point of origin of the abscess from the lumbar spine, and the entire abscess cavity was drained by a tube passing from the origin of the psoas muscle to its insertion.

The President congratulated the author on his paper, and invited discussion. He drew attention to the many specimens of vertebral caries which were on the table, and which he thought would help to decide the question as to the commonest position at which the disease occurred.

Mr. Treves somewhat amplified the details of the cases recorded in his paper: the young woman from whom the necrosed bone had been removed was absolutely well; but the boy, though he had improved as to the local disease, had subsequently died of lung disease with amyloid degeneration of liver and spleen. The specimen of the diseased vertebræ was on the table, and showed the localized condition of the caries.

Mr. Barwell thought that Mr. Treves was to be congratulated, more especially on the closing paragraphs of his paper and on the very unusual condition found in his first case. He said the closing paragraphs, because in them would be

found indicated that which will prove valuable in the operation described by Mr. Treves. He would occupy a few moments in considering the condition of bone in caries of the spine, as it was always, or very nearly always found. In a few instances there was a superficial caries occupying generally the front of the vertebræ, and usually spread over a good number of bones, over a far greater extent of surface than could possibly be reached during life. Such disease did not produce angular curvature, not, at all events, until very far advanced indeed. But the more common form was generally confined to three or four vertebræ—the upper and lower of the affected bones appearing to be only secondarily diseased by the corrosive action of pus—the middle bone when three, or the two middle ones when four vertebræ were involved, became carious, the front and lateral parts of the body quickly disappeared, so that there only remained a wedge of softened bone, infiltrated with and soaked in pus. To attempt the removal of such disease by operation, especially when that operation has to be carried out at a depth which precludes any very accurate guidance of instruments, must be fraught with such danger to the spinal canal that it would in most instances, if not in all, be unjustifiable; nevertheless, Mr. Treves was to be congratulated on his first case. On reaching the spine he had found an abscess cavity leading direct to a sequestrum, already loose, and, being pushed away by granulations, and it was easily removed. The patient of course was greatly benefited and got well. But such a condition about the spine was exceedingly rare, so rare that no operation could be founded upon it, more especially as it could not be diagnosed during life. Of the other two cases, one was a caries already healed, and the other a persistent one, both accompanied by abscess, and both benefited by free opening and draining away of the pus. It was on this point he thought that Mr. Treves' concluding remarks were valuable. Limited to its proper sphere, the operation would certainly take its place in surgery. This place was not the removal or gouging of carious parts of vertebræ, but the free opening, draining and keeping sweet of the abscesses which result from that disease.

Mr. Bryant congratulated Mr. Treves on having shown how the principles of surgery which obtained in the treatment of abscess elsewhere could be applied to the region of the spine; and although it must be felt that this plan would only prove of service in a few cases, the operation on that account was not to be depreciated. Contrary to the usual teaching, many abscesses in this region were not dependent on caries: or the caries when present was secondary to the pus, and not its source. The paper suggested a not difficult means of getting at pus in the vertebræ during the early stage, and while the pus collection was small, and at a spot which allowed good drainage. It could, however, only be done in exceptional cases. The disease was not always in the vertebræ but almost as often in the intervertebral substance; in either case, however, the patients would be more likely to recover if the pus could be let out and the abscess cavity well drained. He would make just one criticism: he thought the drainage-tube was very much larger than it need be. Finally, he would say the idea was not altogether a new one; he had himself treated a few cases on this principle, though not quite after the plan now advocated by Mr. Treves.

Mr. Keetley said that, having found correct the statements made in Germany, as to the value of treatment by erosion and iodoform of caries of the bones of the limbs, he had been for some time anxious to discover a suitable case of caries of the lumbar spine on which to try the same treatment. But hitherto he had only met with two cases, which showed little more than the practicability of such proceedings as those described by Mr. Treves. As, however, they clearly proved this, he now mentioned them. In the first case, that of a girl of 16 with lumbar abscess, he opened the abscess and was able to discover a carious transverse right process of the third lumbar vertebra, as well as to examine the side of the

body of that vertebra with the tip of his finger. With antiseptic drainage, and the injection of a solution of iodoform in ether, the abscess closed and the patient convalesced. In the second case, marked angular curvature had existed for many years in a woman now aged 29, and there were several fistulous openings about the loins, buttocks and thighs. These were scraped out, and the original seat of disease in the bodies of the lumbar vertebræ cut down upon by an incision similar to that described by Mr. Treves; but these bodies were found firmly ankylosed together, and, as far as could be made out, not at all carious. But caries was found on the dorsal aspect of the sacrum. This was scraped, and the wound and sinuses were injected with iodoform in ether. This patient is still in the West London Hospital, with wound and sinuses almost closed. The first-mentioned patient was operated upon on September 9th last, also in the West London.

Mr. Noble Smith acknowledged the value of this suggestion; yet it was not a new plan, for Mr. Furneaux Jordan had advocated a similar plan some time ago, a fact, by the way, which in no way detracted from its merits. Mr. Jordan would only have had his plan applied in severe cases which had resisted treatment for a long time. He (himself) thought that such an operation certainly ought not to be applied in early cases, and he made his modest protest against any such practice. In the recorded cases the operation had proved itself of value; but he thought that equally good results were to be obtained from rest. Many cases died because rest could not be effectually carried out.

Mr. Macnamara referred to the pathological differences in the cases, most of which were undoubtedly tubercular in character. Percival Pott, in his admirable Treatise, had first drawn attention to this fact; he recorded how cases could be absolutely cured by counter-irritation, a statement which his own experience would corroborate. The counter-irritation consisted in the insertion of an issue in the back, which was allowed to remain *in situ* for two or three months or longer. Pathological anatomy had long since cleared up the nature of the disease, and shown its tubercular nature; that at first it is very local in its action and very limited, and that the diseased material, under favorable circumstances, is absorbed and replaced by new bone. Pott's cases were not all very early ones; for the Treatise was one on paralysis in association with spinal disease; hence probably the cases were far advanced.

Mr. Knight Treves (Margate) thought that the operation now advocated was suited to let out pus rather than for the treatment of caries; and when pus was present some such operation was clearly indicated. He had seen a great number of cases of spinal disease, and a more hopeless disease he could not conceive. The rarity with which the disease was seen in people of 30 or 40 years of age was sufficiently accounted for by its mortality. As regards the removal of bone, he thought the proceeding a more doubtful one. It was difficult to diagnose necrosis of the spine; but such cases probably ran a more acute course, whereas caries was essentially slower, and more chronic in its course.

Mr. R. W. Parker said all would sympathize with Mr. Treves in his wish to make spinal disease more accessible to surgical treatment; at the East London Children's Hospital he saw a large number of cases, and he was awake to the insufficiency of the present methods of treatment in a large proportion of these cases. An analysis of 183 cases of which he had notes showed that the disease was located in the cervical region 9 times; in the dorsal region 82 times; in the dorso-lumbar region 21 times; and in the lumbar and lumbo-sacral region 37 times, while in 34 cases its exact locality was not specified. These figures did not quite agree with those of other observers as to the commonest seat of the disease. He could not agree with Mr. Treves in his view that the gravity of spinal caries depended not so much upon any special pathological feature in the process as upon the depth at which the disease was situated. His own experi-

ence was that abscess was comparatively infrequent in spinal caries. Thus, in the nine cervical cases, suppuration was present in two cases; in the 82 dorsal cases, in six only: in the 21 dorso-lumbar cases, in six; in the lumbar and lumbo-sacral cases, suppuration was present in 28 cases. He quite agreed with the last speaker, that the operation was chiefly suitable for the letting out of pus rather than for the treatment of caries. Unfortunately it was by no means easy to diagnose pus. When caries was present it was desirable that healing should go on slowly, for in this way there was less probability of the nerves within the spinal column being interfered with.

Mr. Hulke rather took exception to Mr. Parker's statistics; he had at first thought they referred to post-mortem examinations, but it was obvious on consideration that this was not the case, and indeed Mr. Parker had stated that the observations were made from a clinical standpoint. He would remind the society that abscess in such cases only occurred late on in the disease, and that it was impossible to deny its existence even when it did not present on the surface.

Mr. Parker, in explanation, replied to Mr. Hulke, that he spoke from a clinical point of view. Many of the cases were under observation for long periods, and when recovery took place without the formation of an abscess, he had concluded that pus was not present in any considerable quantity. Moreover, he had made a few post-mortem examinations, and had been struck with the absence of pus; a small amount of thick caseous material was all that he found, in quantity quite disproportionate to the extent of the bone disease.

Mr. Howard Marsh wished to criticize the title of Mr. Treves' paper, which ran thus: "On the Direct Treatment of Spinal Caries by Operation." Discussions which took place at that society attracted attention in the profession, and he thought that many who read the paper might, unless a caution was given, be led to undertake operations, in cases of spinal disease, which would be attended by very unfavorable results. He believed, notwithstanding its title, the paper was intended by the author to advise the early treatment of spinal abscesses by free incision and drainage in favorable situations, rather than to recommend an operation for the removal of bone. On this understanding, he regarded the paper as one of great value. Such interference, he thought, would be attended with a very favorable result, in cases where otherwise recovery was unlikely. The paper, in fact, showed how the principle of evacuating matter early, so widely established in other cases, might be applied to the cases of spinal disease. But as to the treatment of the spinal disease itself, by the removal of diseased bone, he felt that to advocate such a step would be a great mistake. In disease of the spine, a sequestrum was very rarely present. The condition induced was that of caries: that is, the bone was soft, and in a state of molecular disintegration. But the line of demarcation between this and mere chronic inflammation could not be defined, and to cut away bone that was merely inflamed was mischievous; the mechanical injury did much harm, and bone was removed that would, if left, have recovered. He had seen, at the Hospital for Sick Children, many cases of large spinal abscesses, in which Mr. Treves' operation would have been very valuable. But he anticipated, notwithstanding the title of the paper, that the author did not wish to be understood as advocating operations on the spinal column, for the direct purpose of removing diseased bone; though, of course, should loose bone be found (as in the first case), it should be carefully taken away.

Mr. Savory said that he need hardly remark that any suggestion in surgery coming from Mr. Treves was worthy of most careful consideration, and perhaps the best contribution towards an answer to the question he had raised, would be given by pointing out some of the difficulties which occurred to one's mind in relation to the practice he proposed. In the first place, then, it appeared that

the operation could not, in most cases, afford an exposure of the diseased structures, adequate to enable the surgeon to remove safely and completely the carious bone. Even in situations far more favorable to operations, as in the instance of the tarsus, this difficulty not infrequently presented itself. Even here, everyone was grateful to Esmarch's bandage, for the clearer view it gave the surgeon of the condition of the several structures. What then must be the difficulty of cutting away carious bone in a satisfactory manner in the case of the vertebræ? And then again, for operations in caries to be successful, certain conditions are necessary. It is not every case of caries that is benefited by operation. The pathology of caries should not, in this question, be overlooked. The stage called caries is not a primary one, and is preceded by changes of the nature of inflammation and disintegration; and unless the whole area of morbid changes can be included, an operation which deals with the surface of ulceration only may be worse than useless. The case of necrosis was quite different. If by an operation a sequestrum can be removed, then indeed the result may be very useful and brilliant. In fact, it is not too much to say that in such a case it may be the means of saving life. But then, how are we to diagnose the presence of a sequestrum? Seeing how many cases recover without operation, are we justified in commonly performing it on the chance of discovering a loose fragment of bone? He could not sit down without alluding to an observation which had fallen from Mr. Bryant, to the effect that psoas abscess not unfrequently occurred without any preceding disease of bone. If Mr. Bryant would record the facts on which this statement was founded, he would be doing good service to the Society and to surgery.

Mr. Eve, at the request of the President, had placed on the table specimens of spinal caries, involving especially the dorso-lumbar region. On looking through the catalogues of the Royal College of Surgeons' Museum and St. Bartholomew's Hospital, he found that, roughly, in sixty specimens the last dorsal or first lumbar vertebræ was involved in thirty, but the latter in a minority of the specimens. Mr. Treves had stated in his paper that by the operation detailed the last dorsal vertebra could be reached, and therefore in a large number of cases the abscess could be opened at an early stage and drained by that method, although the bone disease might not be adequately dealt with. Mr. Eve was fully aware that museum specimens did not offer an exact criterion of the actual proportion or cases of diseases affecting particular regions of the spine, but the above was an interesting fact which to some extent corroborated Hueter's statement.

Mr. Bryant explained, in answer to Mr. Savory's criticisms, that he referred to acute abscesses about the spine and psoas region. While pathologist at Guy's he had seen several cases of psoas abscess, not associated with spinal caries; further, he had seen cases of dried-up abscess within the psoas muscle, and without caries. It was to such cases that he alluded.

The President remembered the case of a man who, after riding rough-shod over Hampstead Heath, received some injury, and shortly afterwards died of pyæmia. There was no external abscess, but an autopsy revealed a large suppurating hæmatoma within the sheath of the psoas muscle. The asserted greater frequency of disease between the last dorsal and first lumbar vertebræ was, perhaps, to be accounted for by the great mobility of the spine at this part. He then called on Mr. Treves to reply.

Mr. Savory explained that when he had referred to psoas abscess, he of course meant the ordinary chronic and not the acute traumatic variety.

Mr. Treves replied. He said: Not only had the title of his paper been somewhat unfortunate, but the first of the recorded cases had, in a sense, been also a little in opposition to the object with which the paper was written. Many of the speakers had very reasonably surmised that the procedure was

deliberately directed against the bone, and had for its principal purpose the removal of sequestra from the spine. He entirely agreed with all those who condemned such an object. He should be strongly opposed to the gouging away of carious bone from the spine and to the indiscriminate removal of the diseased parts. Sequestra were very rare indeed in cases of this kind, and in the first of his cases the presence of the sequestrum, which he had removed, was entirely unexpected. The main purpose of the paper was to detail an operation, founded upon precise anatomical data, whereby the lumbar vertebræ could be reached and pus arising from bone disease be evacuated at its point of origin. The procedure merely aimed at placing disease in the spinal bones in as nearly as possible the same position with reference to treatment as caries of the other parts. Mr. Barwell was opposed to the operation, because, as he rightly said, the exact site of the malady was not always certain. In answer to this he would ask which step was the more serious: A simple exploratory incision down to the spine under antiseptic precautions, or the leaving of a case of uncertain bone disease to quietly develop until it reached such proportions as to be readily recognized? Mr. Bryant's observation, that pus in contact with normal bone may in time lead to erosion of that bone, was very important, and was a strong argument in favor of evacuating a psoas abscess as early as possible. He was unable to see in what way Mr. Furneaux Jordan's proposed operation—mentioned by Mr. Noble Smith—resembled the one he had detailed this evening. He would agree with Mr. Smith that rest was of very great importance, but he believed that serious evils had followed a too great leaning towards that measure. It had led to the indiscriminate treatment of all spinal cases by apparatus. The apparatus appeared to have been considered all-sufficient. In many cases this treatment had fallen into unworthy hands. A large section of the laity still had the impression that all spinal maladies must be treated by apparatus of some kind. He did not think that the opening of a psoas abscess in the iliac region or just above the iliac crest was to be advised. The opening was some way distant from the seat of the disease, drainage was less easy and the operation less safe on the whole. He had no difficulty in fully exposing the diseased part; tearing of muscle was not required. The bone was bared fully by the abscess, and when the finger was introduced into the abscess cavity the diseased district would be found to be as well exposed as by a dissection.

There was a large collection of specimens of spinal caries from the London Hospital, from University College and from the College of Surgeons.

The society then adjourned.—*British Medical Journal*.

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## SANITARY DEPARTMENT.

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SANITARY QUESTIONS IN NEW YORK. Report of the Committee on Hygiene, of the Medical Society of New York, at the last annual meeting.

The report consisted of four parts. The first part was by Dr. E. G. Janeway, on

### MORTALITY STATISTICS AND EPIDEMIC INFLUENCES.

The mortality for the nine months for the year ending September 30th has been less than for the corresponding period for 1881 and 1882. It has, however, been somewhat greater, both absolutely [and compara-

tively, as regards increase of population, than that for the same period in the years 1878-79-80. Then followed figures showing the absolute difference for ten years.

The work of systematic vaccination was begun in 1875, and continues at the present time. The corps at the Board of Health charged with this work has performed 119,856 primary and 430,783 revaccinations. By the labors of the Board of Health the disease has been checked on all the occasions on which it has appeared. The mortality from small-pox is only one-half to one fourth what it was in the six years preceding 1877. Physicians should urge this work, as, when small-pox has only prevailed to the limited extent that it has done during the six years just ending, the people become careless, and persuasive vaccination by public authority becomes difficult. It is far more essential to keep up thorough vaccination now than to wait for an invitation after the initiation of another outbreak of the disease, which will find its victims among the careless and the obstinate. Dr. Janeway then presented the mortality tables for measles, scarlet fever, diphtheria, etc., for the three-fourths of each year from 1872-83 inclusive. They showed the fluctuating character of mortality for measles, scarlet fever, and diphtheria, from which it seems probable that, owing to the moderate number of deaths from scarlet fever this year, we should witness next year a marked increase for this disease; whereas for measles, the probability would be that there would be a considerable diminution. Diphtheria is on the decline, and from the previous course of the disease it is possible that this diminished mortality may continue for another year or more. Pneumonia has produced 41 less deaths than last year, 235 more than in 1881, and 634 more than in 1880.

During last summer the mortality from diarrhœal diseases had been comparatively moderate. From a comparison of the mortality of these affections Dr. Janeway felt that, making all due allowance for all possible error, a considerable number of lives had been saved as a result of the employment of a summer corps of the Board of Health, and of the active charity of New York City.

With regard to typhoid fever, he feared, owing to the defective water supply, a decided increase in the mortality had occurred. But for the efforts of the Board of Health, the disease would have spread greatly, and extended over a number of years. Physicians should see to it that the Board of Health is properly maintained, aided and encouraged in its work. At times physicians have neglected, or, by concealment, have failed to notify the Board of Health of the existence of contagious diseases, with the effect of producing an epidemic in some cases.

The second part was by Dr. O. D. Pomeroy,

#### ON SOME POINTS IN THE HYGIENE OF THE EAR.

Ordinarily the ear is not affected by exposure to the air. All tuberculous subjects, those of a strumous habit, and a considerable number who

rank as peculiarly sensitive to atmospheric influences, are exceptions to the general rule. Damp air is much more apt to act perniciously than dry air. Sea bathing is often injurious from the direct application of the cold water to the meatus giving rise to otitis media; or, from the violent concussion of a wave upon the meatus, or the entrance of water into the Eustachian tubes. Fill the meatus with cotton and tell the patient not to inhale water or allow it to get into the mouth.

The effect of loud and discordant noises in the ear is often very pernicious. If the patient is removed from the noise before profound deafness results, he may spontaneously recover a good degree of hearing, or become wholly convalescent. Riding in railway cars with the windows open, ship-caulking, and confinement in the never-ending clicking noise of the telegraph instrument, may act perniciously on the ear. Musical sounds do not seem to do harm to the ears. Monotonous and discordant sounds seem alone to operate injuriously on the ears.

Cannon firing, or the discharge of firearms, or the concussion of any explosive sounds, especially when occurring unexpectedly, are likely to do great harm to the hearing. It may rupture the drum-head, or at once render the acoustic nerve unfit for functional activity. Hold the mouth open while the gun is being fired, so that the concussion may act simultaneously upon both surfaces of the drum-membrane. The effect of compressed air, as experienced in the ears of divers, caisson-builders, etc., is often very pernicious. The principal mode of obviating such pernicious consequences is to cause a frequent interchange of air between the throat and the tympanum. This is accomplished by catheterization, either with the Eustachian catheter or Pomeroy's faucial catheter, or by Politzer's or Valsalva's operation. Sometimes simply swallowing, either with or without the stoppage of the nostrils, will be sufficient, in going from one compartment of a caisson to another having a different air-pressure.

The ears require to be "changed," as the expression is, that is, induce an interchange of air between the throat and tympanum, so as to equalize the pressure. On the score of violence inflicted on the ear, the common practice of boxing the ears of children is liable to result in serious damage; pulling and pinching the auricles is much to be reprehended. With reference to the prevention of impaction of cerumen in the meatus, disease of the ears for the most part may be predicated when this tendency exists, and no efforts at cleanliness can prevent it. Sunstroke occasionally affects the hearing unfavorably.

The third part was by Dr. Stephen Smith,

#### ON SEWER GASES.

Sewer gas has been recognized as a powerful factor in the cause of that large class of preventable affections known as "filth diseases." The writer then spoke of the solution of the question of the prevention of the entrance of sewer gas into dwellings, of the far more important question of ventilating sewers themselves, and of the system adopted



by the Department of Public Works for the accomplishment of this purpose. Dr. Smith gave practical illustrations of the evils of the present system of ventilating sewers, that is by means of perforated covers to the man-holes in the streets. He referred especially to Forty-second street, which is seldom free from the odor of sewer gases, and frequently for days and nights together the odor is so intense as to raise the inquiry of the residents as to the possibility of the odor from the gas manufactory miles distant reaching them. In damp, foggy weather the residents have been obliged to close their windows at night to shut out the foul odors. He thought it very evident that this method of ventilating sewers is in every respect objectionable. Practically it is equivalent to having open sewers running through the streets of New York. There can be no effective method of removing the gases of sewers except by apparatus which is aspirating in its operations. The gases should be drawn out by the action of forces which are constant and altogether independent of atmospheric changes, and delivered into the external air at an altitude which renders it impossible for them to penetrate any room occupied by human beings at any time. The subject above considered ought to receive the attention of the Board of Health. In answer to complaints of citizens, and requests that the nuisances be abated, that body refers to the Department of Public Works. Though the sewers are managed by that department, yet the Board of Health is not thereby exonerated from obligation to protect the public health against the dangers to life or the detriments to health which the Department of Public Works or any other department creates.

The fourth part was by the Chairman of the Committee, Dr. S. Oakley Vandepoel, on

#### THE HYGIENE OF HIGH HOUSES.

The Committee protested against the erection of high buildings from a hygienic point. First, with reference to the inmates. Since the inception of this question in building, no general epidemic—such as all large communities are liable to—has occurred. Isolation of the sick in all such maladies is a prime factor to prevent spread of the disease. In the buildings constructed having so many families, such isolation would be practically impossible. Either through necessary attendance, contaminated clothing, or currents of air, the epidemic poison would be carried to every occupant, and the persons now eager to secure apartments therein would be as anxious to desert them. The families in the first three stories are to a great degree deprived of sunshine. The importance of this to the thickly denized population can hardly be overestimated.

So much of the surface of the lot is occupied both for obtaining room and to give solidity to the high walls, that it becomes necessary to resort to every expedient to procure the necessary circulation of air and ventilation. Chief among these are the air-shafts running from the bottom to the top of all such houses. Into these, windows open either from the inside rooms, or these windows may serve as ventilators to water-closets

and bath-rooms. While the houses and plumbing are new, no unpleasant effects may follow this procedure; but, as experience has too often shown, defective plumbing in any of the lower stories will allow miasm to be wafted to every story above through the open windows upon these shafts.

For economical reasons, most of the closets and bath-rooms are placed upon one line of piping. Should typhoid fever, or possibly cholera, occur in the lower stories, and any defects exist in the traps above, the poison would contaminate the apartments so exposed.

Second, their influence is more baneful upon the surrounding property and streets. Opposite and adjoining houses receive no direct rays of sunshine. The streets remain damp, and, of necessity, more or less filthy. This constant dampness and, lack of sunshine is more or less pernicious. All methods of disinfection and destruction of disease germs depend upon the active oxidizing effect of the material employed. In our streets, next to cleanliness, the most important factor in oxidation is the sun's rays.

These evils are not confined to the residents of the high buildings, but to those also on the opposite side of the narrow streets. Private houses, before cheerful and healthy, become gloomy and unhealthy. Fictitious currents of air are established which not only make smoking chimneys, but may reverse the currents from the underlying pipe from the roof connecting with the soil pipe. While apartment houses in our crowded population with limited area may be a recognized necessity, a limit of height, regulated by the width of the adjoining street, should be required as a sanitary necessity.—*Medical Record*.

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## BIOGRAPHY.

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### DR. ELISHA HARRIS.

Dr. Elisha Harris, Secretary of the State Board of Health, died recently at the Delavan House, in Albany, after an illness of four days' duration. The cause of death was an attack of peritonitis. Dr. Harris, who was well known throughout the entire civilized world, by reason of his connection with sanitary work and the collation of vital statistics, was born in Westminster, Vt., March 5, 1824. After a common school education in his native town, in 1837, he became an academical student of Dr. S. B. Woolworth, late Secretary of the State Board of Regents of the University of the State of New York. During 10 years of his life spent as teacher, student, and farm assistant to his father, he pursued his medical studies, and finally was graduated from the College of Physicians and Surgeons in 1849. Lafayette College subsequently conferred upon him the honorary title of Master of Arts. Soon after beginning the practice of medicine, he married, in the autumn of 1849, the only daughter

of the Rev. Dr. Josiah B. Andrews. She died in 1867, leaving no children, and from the date of her death Dr. Harris gave all of his time to the public service in various capacities.

Dr. Harris's first entrance into the public service was in 1855, when he was made Superintendent and Physician-in-Chief of the Quarantine Hospitals at Staten Island. To him was intrusted, in 1859, the construction of a floating hospital to be anchored below the Narrows, facing the open sea. His mastery of the sanitary problems connected with the New York Quarantine Station resulted in the establishment of the present system of quarantine defenses, in all their important details. When the recent war of the States commenced, Dr. Harris, in connection with the Rev. Dr. Henry C. Bellows and others, became interested in the National Sanitary Commission, and he was for nearly five years a Sanitary Commissioner. The railway ambulance was exclusively his device, and proved of such value that, in 1867, at the Exposition Universelle in Paris, he was awarded a bronze medal. A silver medal was given him for the same ambulance by the Société des Secours aux Blessés. The ambulance was also adopted and used by the Prussian Army in the Franco-Prussian war. The system of a national record of the deaths and burials of soldiers was also devised by him and adopted by the War Department. At the close of the war he was intrusted with the collection of the sanitary history of the war, which was published in several volumes, entitled "Sanitary Memoirs of the War."

At the close of the war Dr. Harris again turned his attention to the sanitary conditions and needs of this city. As a voluntary work, he supervised a sanitary survey of the city. The results of this were published by the Appletons, as a report on the sanitary condition and wants of the city. It was a work of great value to sanitary science, as well as to the metropolis itself. He entered the service of the Metropolitan Board of Health three days after its organization, March 5, 1866, the same day on which the secretary of the present Board, Colonel Emmons Clark, received his original appointment. His associates on the Board were Drs. James Crane, Willard Parker, John O. Stone, and John Swinburne, and Jackson S. Schultz. The ex-officio members were Thomas C. Acton, John G. Bergen, Joseph S. Bosworth, and Benjamin F. Manierre. Dr. Harris then held the position of Registrar of Records. In 1869, when E. B. Dalton, the first Sanitary Superintendent of the city, resigned, Dr. Harris was appointed as his successor, but was legislated out of office in 1870, with the adoption of the new charter. In 1873 he was appointed Registrar of Vital Statistics, and he retained that position until January, 1876, when he was again virtually legislated out of office, the Board of Estimate and Apportionment having consolidated the Bureau of Vital Statistics and the Sanitary Bureau and extinguished the office of Registrar of Records, whose work is now performed by the Sanitary Superintendent and his assistants. When Dr. Harris was first appointed to the office of Registrar, in 1866, to succeed F. I. A.

Boole, the records were in a very bad condition and wholly unreliable. Order was created out of chaos, and the system now in use was devised by him.

One of the greatest works for the benefit of the people of the city in which Dr. Harris was engaged was the first thorough tenement-house survey, known as the Sanitary Survey of 1869. It was so complete that the blanks filled in by the inspectors were bound, and they are to-day preserved and esteemed as one of the most precious series of records in the possession of the department. The immediate result of this work was to render tenement-house life less hideous, by making ventilation of dark bed-rooms compulsory. By Dr. Harris's suggestion or direction over 50,000 windows for ventilating purposes were put in such rooms. Dr. Harris was also actively engaged in fighting the epidemic of relapsing fever in 1870, when, there being no hospitals for contagious diseases, a thorough system of disinfecting and fumigation was made necessary. To him also is due much credit for taking the first step in establishing the system of public vaccination. This was in 1869, and about 50 physicians in that year vaccinated between 50,000 and 60,000 persons. He also did efficient work during the cholera epidemic of 1866-7, though he modestly allowed the executive honors of that fight to rest with Dr. Dalton, whose most efficient aid he was at the time. Dr. Harris's uniform politeness, courtesy, and urbanity while connected with the Health Department won for him the title of "the Chesterfield of the department."

When, in 1880, the Legislature organized the State Board of Health, Dr. Harris was made one of the three Commissioners, and he was unanimously elected Secretary and State Superintendent of Vital Statistics. These positions he held at the time of his death. The organization of the entire service was due in great part to his ability as an executive officer. He was also instrumental in the organization of the American Public Health Association, of which he was for several years both Secretary and President. Into the work of this association he entered with his whole soul, devoting all the time he could spare to the advancement of its aims and interests.

Dr. Harris was also widely known as a philanthropist. He was for many years identified with the Prison Association for the Care and Reformation of Discharged Convicts. He was its Corresponding Secretary from 1872 to 1880 and a member of the Executive Committee at the time of his death. He was made State Agent for Discharged Convicts when that office was created, in 1880. He served for a year and a half in organizing the system of State philanthropic work done by that officer. The Prison Association was in session at Charlton T. Lewis's office on the afternoon when the news of Dr. Harris's death was received, and it adopted resolutions recognizing the loss to the organization, and paying tribute to his worth and work. Another tribute to Dr. Harris's work was recently paid by Michael Dunn, Superintendent of the House of Industry at

Houston and Mulberry streets, who on hearing of his death said sorrowfully: "I'm sorry he's gone; he was one of God's noblemen. It was his words with me that first led me to abandon a criminal life and try to live honestly."

Dr. Harris was also identified with the Association for Improving the Condition of the Poor, and was a member of the County Medical Society, the New York Academy of Medicine, the Physicians' Mutual Aid Association, the Society for the Relief of Orphans and Widows of Medical Men, the *Medical Journal* Association, and the Public Health Association of New York. He was also an active or honorary member of various other associations and societies in this country and Europe. He was consulting physician to the country branch of the Nursery and Child's Hospital. He was a voluminous writer of works on sanitary and philanthropic subjects, and also on questions relating to vital statistics.

PHARMACY AND THERAPEUTICS.

A COMPARISON OF WEIGHTS, MEASURES, ETC., PREPARED BY REQUEST FOR CONVENIENCE OF READERS.

FRENCH WEIGHTS IN TROY WEIGHTS.

1 milligramme.....	equal to	1-65th grain.
1 centigramme.....	"	1-6th "
1 decigramme.....	"	1½ grains.
1 gramme.....	"	15 "
1 decagramme.....	"	150 "
1 hectogramme.....	"	1,465 "
1 kilogramme.....	"	14,720 "
1 myriagramme.....	"	145,824 "

FRENCH MEASURES OF LENGTH IN ENGLISH MEASURES OF LENGTH.

1 millimetre.....	equal to	1-1,000th metre.
1 centimetre.....	"	1-100th "
1 decimetre.....	"	1-10th "
1 metre.....	"	39 37-100th inches.
1 decametre.....	"	10 metres.
1 hectometre.....	"	100 "
1 kilometre.....	"	1,000 "
1 myriametre.....	"	10,000 "

FRENCH MEASURES OF CAPACITY IN ENGLISH MEASURES OF CAPACITY.

1 millilitre.....	equal to	15 troy grains water.
1 centilitre.....	"	150 "
1 decilitre.....	"	1,500 "
1 litre.....	" (1 qt.)	15,000 "
1 decalitre.....	"	150,000 "
1 hectolitre.....	"	1,500,000 "

NOTE.—1 grain troy is equal to 1 and 8-100ths grains in apothecary's weight.

TEMPERATURE AND WEIGHT.

1 lb. water at 60 deg. F. . .	equal to	79-100ths pint. or
		6,067 22-100ths minims.
1 oz. " " ..	equal to	1 5-100ths fl. oz., or
		505 60-100ths minims.
1 gr. " " ..	equal to	1 5-100ths minims.
1 fl. drachm water at 60 deg. F. . .		56 96-100ths grains.
1 fl. oz. " " ..		455 69-100ths "
1 fl. gallon " " ..		231 cubic inches.
1 fl. pint " " ..		28 87-100 "

TEMPERATURES.

CENTIGRADE.—To convert Centigrade (C.) or Celsius to Fahrenheit—multiply by 9, divide by 5, and add 32. Thus 40 deg. C. multiplied by 9 equal 360 deg.; divide by 5, equal 72 deg.; add 32, equal 104 deg. F.

REAUMUR.—To convert Reaumur (R.) to Fahrenheit—multiply by 9, divide by 4, and add 32. Thus 40 deg. R. multiplied by 9 equal 360 deg.; divide by 4, equal 90; add 32, equal 112 deg. F.

PERCENTAGE OF ALCOHOL IN WINES, LIQUORS ALES, ETC.

Strong Port 25, Madeira 24, Sherry 19, Malaga 17, Brandy 53, Rum 53, Gin 51, Whiskey 52 to 54, Burgundy 14, Sauterne 14, Champagne 12 to 14, Tokaya 9, Rudesheimer 10, Catawba 8 to 10, Cider 6 to 9, Mead 7, Burton Ale 8, Scotch Ale 6, Brown Stout 6, Porter 4, Strong Claret 17, Chateau Latour 9, Hock 9 to 12, Lachryma Christi 19, Vin Ordinaire 10.

ALCOHOL ON DIGESTION.—Buchner, in the *German Archives of Clinical Medicine*, reports the results of a series of experiments on the influence of alcohol on artificial and gastric digestion, as follows: 1. Alcohol by itself, up to ten per cent., has no effect on artificial digestion. 2. Increased to twenty per cent. the process is lengthened. 3. A still higher percentage stops digestion entirely. 4. Beer has the same effect if used undiluted. 5. Likewise the red and sweet wines, while white wine, pure, merely delays it. 6. In ordinary gastric digestion, beer appears to act unfavorably, even in small quantities. 7. Wine is the same. 8. When the absorption and secreting functions of the gas-

tric mucous membrane are impaired, alcohol completely checks the progress of digestion.—*Qt. Jl. of Inebriety*, Jan., 1884.

**KAIRIN IN ACUTE RHEUMATISM.**—A paper by Dr. H. Menche, of Rheydt, published in the *Centralblatt für Klinische Medicine*, No. 47, 1883, forms a small but instructive contribution to the slowly accumulating evidence of the action of kairin, the latest antipyretic drug. The experience of the writer as to its action in the pyrexial stages of pneumonia, pleurisy, and pernicious anæmia is by no means so satisfactory as that of some other observers. It cannot fail to be noticed, however, that a very large dose was employed in every case. In a case of asthenic pneumonia, in which one gramme of kairin was given every hour for seven hours, a marked reduction of temperature took place, but at the same time the toxic effects of the drug became very manifest. It should be added, that large doses of quinine and smaller doses of kairin had been tried previously without result. Depression of pulse, rigors, discoloration of urine, and a marked tendency to collapse were the symptoms accompanying the reduction of fever. In phthisis and anæmia similar effects were produced, severe sweating being also present in the former case. In a case of typhoid fever, in which hyperpyrexia had been uninfluenced by baths and quinine, the administration of seven and a half grains of kairin every hour for five hours had a very powerful effect in reducing temperature, but at the same time severe rigors, great depression of pulse, and delirium rendered the features of the case rather more serious than they had been before. Noting the points of resemblance between kairin and salicin, viz., their rapid antipyretic effect, and their tendency to induce delirium and other toxic symptoms, Dr. Menche tried it upon a case of acute rheumatism. The patient had been ill for six days, and several joints had been affected. Three and a half grains of kairin were given three times in one morning, and seven and a half grains four times in the same afternoon. Severe sweating was induced. Less pain was felt, but the joints were still tender in the evening. On the following day the drug was given again in smaller doses, with still further relief to pain. A relapse followed in twenty-four hours, pain returning as severely as before, with signs of pericarditis. With the free use of kairin (seven grammes in twelve hours) the pain and febrile disturbance were again reduced. The whole illness lasted nineteen days, during nine of which the patient took fifty grammes of kairin. A second case, of a patient with long-standing mitral disease, was also treated with frequent doses, with equally good results. Dr. Menche's experience of the drug thus leads him to compare it favorably with salicylate of soda as an antipyretic in cases of acute rheumatism, but to use it with caution in cases of other specific fevers.

QUININE has just sold at \$1.40 an ounce, which, it is said, is the lowest price quoted in twenty years. During the war it reached its highest price, \$4 per ounce.

**THE BOILING POINT OF OXYGEN.**—Our knowledge of the liquid and solid states of the bodies so long known as the permanent gases is increasing rapidly. M. Wroblewski has succeeded in producing both liquid and solid oxygen in considerable quantity, and is now engaged in trying its effects in the liquefaction of hydrogen. Liquid oxygen is colorless and transparent. It boils at  $-186^{\circ}$  C. ( $-303^{\circ}$  F.), and freezes into crystals, which adhere to the surface of the vessel. Its critical temperature at a pressure of 50 atmospheres is  $-113^{\circ}$  C. ( $-171^{\circ}$  F.). When nitrogen is exposed under pressure to the low temperature of boiling oxygen, it freezes in crystals of remarkable size and beauty. Ozone, it will be remembered, condenses easily into a blue liquid, which gives a very beautiful blue vapor; in this liquid state it decomposes easily and with explosion.

OIL OF CLOVES AS A DISGUISE TO THE ODOR OF CHLOROFORM.—The odor of chloroform is so very objectionable to some patients that it is very difficult to anæsthetize them in the usual manner. In order to overcome this odor, the plan commonly followed in England, according to the *Deutsche-Amerikanische Apotheker Zeitung*, is to add to the chloroform a small quantity of ether and ethereal oil of cloves. In Prof. Nussbaum's operations, ten to twelve drops of the mixture are dropped upon a napkin employed in administering the chloroform. This so far corrects the odor of the latter that it is rarely refused by the patient.—*Therapeutic Gazette*.

SALTS OF NICKEL.—It seems to Dr. Da Costa that the preparations of nickel, especially the bromide, will be found additions to our therapeutic resources; and are certainly worthy of more careful study than they have hitherto received.

LIQUOR ACIDI PHOSPHORICI.—The Rumford Chemical Works “warn all persons from selling *any* imitation of Horsford's acid phosphate; or *any* ‘acid phosphate’ under any style of label or form of package, for use as a medicine or article of diet, or ingredient to be employed in beverages or food; or any proprietary article for use as a medicine or beverage, under the name ‘acid phosphate,’ as they will thereby infringe their trade mark, copyright or patents, and render themselves liable for damages.” The preparation, however, made after the formula of Professor William Pepper, of the University of Pennsylvania, and sold under the name of *Liquor Acidi Phosphorici*, may with benefit be used for the acid phosphate compound in all the conditions for which the latter is lauded. Each fluid drachm of this preparation contains: 3 grains phosphate lime, 2 grains phosphate magnesia,  $1\frac{1}{2}$  grains phosphate potassa, with excess of free phosphoric acid.

DR. FREDERICK LONG (*British Med. Jour.*) writes that ten grains of citrate of potassium will dissolve fifteen grains of gallic acid in an ounce of water. This is an important discovery, as heretofore no feasible means of dissolving the acid has been known.

POTASSIUM CYANIDE.—A German convict in Chicago committed suicide, recently, and before doing so left a commemorative rhyme, which runs as follows:

“Here's a recipe for a popular suicide:  
Take twenty grains of potassium cyanide.”

WHERE HOLLOWAY GOT HIS OINTMENT.—If you will allow me, I will furnish from my own personal experience the true history of Holloway's ointment. In the year 1835 I held the position of dresser at St. Thomas's Hospital, under the late Mr. Travers (at that time the senior surgeon), and I perfectly well remember Mr. Holloway bringing an Italian named Albinolo to the hospital for the purpose of introducing him to the surgeons as the inventor of an ointment said to be remarkably efficacious in the cure of ulcers on the leg, and similar affections, and soliciting a trial of it in the wards of the hospital. In accordance with this request Mr. Travers desired me to give it a trial, and report the result to him. I found the ointment to be a very simple and harmless compound, very similar to our own simple cerate of wax and olive-oil, and I certainly found it to possess no wonder-working curative powers, and reported of it accordingly. Some time after, an application was made either by Albinolo or Mr. Holloway to Mr. Travers for something in the shape of a testimonial as to its good effects, but, acting on my report, Mr. Travers declined to give anything of the sort. A letter of some sort, however, was obtained from Mr.

Joseph Henry Green, by whose dressers the ointment had also been tried, and an extract from this letter, which was made to assume the appearance of a recommendation of the ointment, was then inserted in the advertisements in the papers. Mr. Green was so much annoyed at his name being associated with a quack remedy that he applied to the Court of Chancery for an injunction to stop the further publication of his name in conjunction with the ointment. After this the ointment was advertised as Albinolo's ointment for some time, and then the name of Holloway was substituted.

It is evident that the calling of this simple ointment "Holloway's ointment" was an entire fraud. The history of Holloway's pills is doubtless very similar. This absolute charlatan is being deified in England for his "princely charities," and yet the thousands of pounds which he owed at the time of his first failure he refused to pay, on the ground that they were not "legal debts."

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## REVIEWS.

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### THE PROCEEDINGS OF THE NAVAL MEDICAL SOCIETY. Vol. I., No. 6.

These publications have so far been unusually interesting, and reflect much honor on all concerned in their preparation. This number contains excellent papers by Drs. Albert S. Gihon, John M. Brown, and J. H. Kidder. The paper "Thirty Years of Sanitary Progress in the Navy," by Dr. Gihon, is, like all that he writes, exceedingly interesting and valuable.

It is often said by the ne'er-do weels, the lazy, the pessimists, etc., that it is useless for doctors to try and enlighten the public, and that all such efforts are useless, and a mere loss of time. Dr. Gihon, in this admirable address, given by him as President of the Naval Medical Society, shows how erroneous are such views. The navy, as is well known, is wedded to its idols, and reform there is difficult indeed; but strong and repeated blows do their work fully and well. In this work Dr. Gihon has been for two decades pre-eminent. He thus gives these two pictures of the past and of the present:

"After a long and stormy passage through the Indian Ocean, the *Levant* arrived at Anjer Roads, in Java, on the 25th of March, 1856, when the heat was intense. Her crew were enfeebled, and many of them exhibited evidences of the scorbutic cachexia, in consequence of the deteriorated and unsuitable character of their food, which the insufficient daily issue of wood did not allow to be properly cooked; of their short allowance of water, which was impure; of their confinement on board ship since the previous October, when she went into commission; and of their unusually arduous labors in the high southern latitudes, where they were exposed for several weeks to a continuance of cold, damp, and rainy weather. Notwithstanding their condition they were laboriously employed, working from daylight until dark, for two days, getting on board wood which was wet and green, and water *white from*



*organic impurities*, and which had run through a series of dirty wooden troughs into an equally dirty reservoir. The vessel sailed on the evening of the third day, and within a few hours, that night, twenty-four cases of *cholera communis* were reported, two of the lieutenants among the number. Few of these men were ever able afterward to do their duty properly. As events proved, this was their preparation for a tedious passage of *forty-six days* across the China Sea to Hong Kong, a distance of only twelve hundred miles, but entirely within the tropics (latitude  $8^{\circ}$  south to  $20^{\circ}$  north), at the season of the change of monsoons, when the high temperature is not moderated by any breeze, nor the scorching heat of the tropical sun scarcely ever shielded by a clouded sky, and when the glassy surface of the sea reflects and concentrates the heat upon the ship, whose black sides greedily absorb it. The deck load of freshly-cut green wood added an unwholesome moisture to the atmosphere, and the unfiltered water, with which the tanks had been filled, preferred for cheapness, soon decomposed and became offensive and unpalatable. The men had gorged themselves with oranges, mangosteens, and other fruit during their short stay at Anjer; but the supply of chickens, vegetables, and fruit which they brought away with them was soon exhausted, and they were again fed with the mahogany-like 'salt horse,' green fat pork, worm-eaten bread, weeviled beans, and musty rice, which they had to eat in the chilly regions of the Southern Ocean. The paltry interval of three days in ninety-seven had brought no relief to their jaded and debilitated bodies; but they were occupied with the still severer labor of working ship for every 'cat's paw,' under the additional morbid influence of a vertical tropical sun. Most of the intractable cases of diarrhoea and dysentery, and the large majority of deaths during the cruise, can be directly traced to this period. The asthenic habit of constitution, which rendered these complaints fatal, was evidently fixed upon them by the various concurrent circumstances in operation thus early in the cruise. After her arrival on the station, this vessel did not, like the rest of the squadron, employ a Chinese 'fast-boat,' and the results of this and other violations of hygienic mandates were plainly shown in a sick-list of *thirteen hundred and forty-five* cases during the thirty months of her commission. Nor were the sickness and inefficiency of the crew the only consequences of this utter disregard of sanitary laws. One of the officers, who inspected her at the end of her cruise, told me that she was the most unclean and ill-conditioned vessel he had ever seen.

"Understand, I am reading from leaves of my own experience—an experience of an allowance of a quart of water a day for cooking, drinking, and washing, and which sometimes had to be strained through closed teeth, with eyes shut, and nose held—an experience which made pickles and molasses luxuries, and 'swanky' a very nectar. In those days, when it was a pastime to wager the number of weevils and worms per square inch; salt beef, which was termed *horse* from its fiber, and

*mahogany* from its density and color ; pork, softer in texture and green from putrefaction ; rice which was mouldy ; and beans, which either could not be boiled soft or which had surrendered their starchy contents to feed and house the myriad insects which peopled them.

“As a companion picture, I shall briefly call your attention to a man-of-war I have just officially visited, as a member of the Board of Inspection, on her return from a three-years’ cruise, part of the time on the Coast of Africa, there having been during the thirty-six months among her two hundred and twenty men and officers but a single death from disease, an average daily sick-list of only 4.22, including trivialities that formerly were not reported, and only twelve men invalided, five of these having been sent out of the ship before she left the United States. Her berth-deck, bright with light from large rectangular ports, was clean and dry, having been covered with shellac, and easily and speedily cleansed. Her comfortably clothed men were well fed with substantial and abundant food, which they ate decently, sitting on benches at clean tables. Her prison-brig was clean from mere disuse, though its very cleanliness were enough to tempt a skulker.

“Satisfactory as the Galena’s condition was another vessel, the Trenton, which I inspected a few weeks later, at the beginning of her cruise, represents still further progress in sanitary prevision. Here ventilation by aspiration has been provided for, tubes communicating with every apartment and store-room and *cul-de-sac*, from which vitiated air is drawn to be discharged in the open air of the spar-deck, with the successful practical result that, notwithstanding the necessarily crowded condition of the berth-deck at the close of the first watch, all but a quarter-watch being below, not a trace of animal odor was perceptible to the senses. Illumination was obtained by day by large unobstructed ports, and by night by electric lights, which were placed in every apartment, store-room, and passage-way. Where there are light and fresh air and dryness at the outset of a cruise, there will be neither dirt nor vermin nor disease at its close ; and the effort to exclude moisture on board this ship is not confined to shellacking the berth-deck, but a capital steam drying-room has been placed at the heel of the bowsprit, where men’s clothing, damp towels, and other wet fabrics are at once dried.

“Latrines and bath and wash-rooms under the top-gallant fore-castle ; mess-tables and benches ; mess-lockers and clothes-lockers ; a place where and opportunities when men can read and write ; and frequent daily liberty to go on shore, if not already common to every vessel, are yet now so generally the concomitants of the well-officered and well-disciplined and efficient ship, that ere long their absence will be accounted a fault.

“The naval sanitarian to-day has a comparatively easy task. He has no longer to preach to unwilling ears, but rather to see that he is not outstripped by his shipmates of other corps. The bulky volume of *Naval Hygiene*, with its chapters of horrors, is shrinking to a little pocket

memorandum book. Executive officers themselves point with pride to the shellacked decks. It was a line colleague on the Board of Inspection, Admiral Rhind, who strenuously insisted upon a wash-room for the crew, and Captain Harmony has devised a most admirable removable canvas-bath for them. A practical seaman, Commander Howison, has been the most persistent advocate of benches and tables at which the man before the mast can sit and eat, without danger of becoming less a sailor; and another commanding officer, Greer, whose nautical reputation is beyond question, demonstrated the practicability of the system of daily liberty-lists. If I began my career, always in arms, contending for the right and grudgingly gaining a little of it, I have just ended my duty on the Board of Inspection with colleagues, who never once, during all the years of our association, antagonized a suggestion having a sanitary object, but more than once themselves advanced them, and I gladly take this occasion to bear testimony to their zealous co-operation. It is true that there are still men who profess to believe in holy-stoning a deck rather than in shellacking it; there are some who would send the mess-tables and benches on shore, and restore the greasy mess-cloth; as there are some whose daily list of punishments has more names upon it than their daily list of liberty men—if, indeed, there be any such.

“Only a few days since, coming from the clean, bright, beautiful berth-deck of the ‘Trenton,’ we happened to go on board another vessel, on which clumsy mess-chests encumbered the berth-deck, where the men were squatting on their haunches around black mess-cloths, in the dim light, which came through the old-fashioned six-inch air-port. The contrast was marked, and Commodore De Krafft, the President of the Board, turned to me and said: ‘This carries me back thirty years.’ And later still, we saw on board another vessel, fortunately soon to be abandoned, the abominable perforated iron plates which used to be placed the whole length of the berth-deck, opening into the framespaces and permitting the emanations of the hold and bilge to find vent under the hammocks of the men, and beneath the bunks in the state-rooms of the officers.”

A noble triumph of the naval medical officers is this, and an eloquent answer to all doctors who advocate submission and silence.

It is to be hoped that the members of the Naval Society will continue to give interest and value to their publications.

ELEMENTS OF HISTOLOGY. By D. KLEIN, M.D., F.R.S., Joint-Lecturer on General Anatomy and Physiology in the Medical School of St. Bartholomew's Hospital, London. Illustrated with 181 engravings. Philadelphia: Henry C. Lea's Son and Co. 1883. Price \$1.50.

This is a most convenient manual for those who do not care to study histology in its entire and minute elaboration. It gives a very fair idea and very reliable facts in regard to the subject, and to those who are satisfied with “a little learning” will prove to be quite satisfactory.

It is, however, at best, superficial in its treatment of this grand science. All manuals must be so.

ELEMENTS OF SURGICAL PATHOLOGY. By AUGUSTUS J. PEPPER, M.S. M.B., Lond., F.R.C.S., Eng., etc. Illustrated with 81 engravings. Philadelphia: Henry C. Lea's Son & Co. Price, \$1.50. Pp. 503, 12mo.

This work is very unevenly written. The portions devoted to scrofula, syphilis and tubercle are inferior, while that on septic poisoning manifests decided ability, and a familiarity with the best or most reliable authorities of the present period. It is not up to the standard so far maintained in the "Student's Series."

SURGICAL APPLIED ANATOMY. By FREDERICK TREVES, F.R.C.S., Assistant Surgeon to and Senior Demonstrator of Anatomy at the London Hospital, Examiner in Anatomy at the University of Aberdeen, Wilson Professor of Pathology, R.C.S.Eng. Illustrated with 61 engravings. Philadelphia: Henry C. Lea's Son & Co. Price \$1.50.

The author of this little book is one of the most prominent of the younger surgeons of London. His book is a very useful guide, and contains many practical hints worthy of the attention of the best surgeons. It is, however, chiefly a vade mecum, a handbook, and remembrancer. It is published attractively.

CLINICAL CHEMISTRY. AN ACCOUNT OF THE ANALYSIS OF BLOOD, URINE, MORBID PRODUCTS, ETC., WITH AN EXPLANATION OF SOME OF THE CHEMICAL CHANGES THAT OCCUR IN THE BODY IN DISEASE. By CHARLES HENRY RALFE, M.A., M.D., Cantab., P.R.C.P., Eng. Illustrated with 16 engravings. Philadelphia: Henry C. Lea's Son & Co. Price \$1.50

The reader can see from the title of this little book that it is one which supplies a want felt by every practitioner. It is well and honestly written, neatly issued, costs little, and will be useful to every physician.

THE HYGEIAN HOME COOK BOOK. By R. T. TRALL, M.D. Fowler & Wells, N. Y.

This is the "cook book" of a vegetarian. There is not a word in it in reference to meats, eggs, poultry, fish, or shell-fish. It is absolutely worthless to any but cracked-brain enthusiasts, who are ignorant of even the primer lessons in dietetics, as built on a rational or scientific physiology. Acid and sub-acid, superannuated old maids, weak-brained theorists, and silly propagandists might be misled by such trash, but with one of any sense, it goes into the waste-basket, where only it should be sent.

## BOOKS AND PAMPHLETS RECEIVED.

From William Wood & Co., 56 and 58 Lafayette Place, New York.

**PATHOLOGY AND TREATMENT OF GONORRHOEA.** By J. L. Milton, M.D.

**LEGAL MEDICINE.** By C. M. Tidy, M.D.

**MANUAL OF PRACTICAL HYGIENE.** By B. A. Parke, M.D.

**DISEASES AND INJURIES OF THE HORSE.** By F. O. Kirby, M.D.

From P. Blackiston, Son & Co., Philadelphia, Pa.

**MEDICAL DIRECTORY OF PHILADELPHIA.** 1884.

**ARREST OF DEVELOPMENT.** By H. F. Hendrix, M.D., St. Louis, Mo. 1884.

**MEDICAL SYMBOLISM.** By T. S. Sozinsky, M.D., Philadelphia. 1884.

**REMOVAL OF OVARIES AND FALLOPIAN TUBES FOR CHRONIC OVARITIS.** By Thomas H. Hawkins, M.D., Denver, Colorado.

**ANNUAL ADDRESS BEFORE AMERICAN ACADEMY OF MEDICINE.** By Henry O. Macey, M.D., President, Boston, Mass.

**A FEW OBSERVATIONS ON THE USE OF CHLOROFORM IN NATURAL LABOR.** By H. C. Ghent, M.D., Belton, Texas.

**WORLD'S EXPOSITION - COTTON CENTENNIAL.** New Orleans, La.

**RECENT WONDERS IN ELECTRICITY, ELECTRIC LIGHTING, MAGNETISM, TELEGRAPHY, TELEPHONY, ETC.** By Henry Green. Illustrated. \$2.00 122 East Twenty-sixth street, New York.

**REPORT OF STATE BOARD OF HEALTH.** West Virginia. 1884.

**PROCEEDINGS OF NAVAL MEDICAL SOCIETY.** Vol. I., No. 6.

**MALARIA AS AN ETIOLOGICAL FACTOR.** By Simon Baruch, M.D., New York.

**MEMOIRS OF J. MARION SIMS, M.D.** By Thomas Addis Emmet, M.D., and W. O. Baldwin, M.D. Report of Memorial Meeting of Medical Society of the District of Columbia, D. C. Reprints.

**N. Y. STATE MEDICAL ASSOCIATION, FOUNDED 1884.**

**CAPON SPRING BATHS.** Capon Springs, Va.

**RECENT PROGRESS IN DISEASES OF THE NERVOUS SYSTEM.** By Talbot Jones, M.D., Minn.

**SIXTEENTH ANNUAL REPORT OF THE N. Y. ORTHOPEDIC DISPENSARY. FIRST ANNUAL ADDRESS.** By S. C. Busey, M.D., D.C.

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MISCELLANEOUS.

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**THE SIMS MEMORIAL FUND.**

TO THE MEDICAL PROFESSION AND OTHERS THROUGHOUT THE WORLD :

THE great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynæcological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill, are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynæcological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the City of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to this journal which has been constituted the treasury of this fund—*The Medical Record*, New York.

FORDYCE BARKER, M.D., Chairman.

GEORGE F. SHRADY, M.D., Secretary.

T. Addis Emmet, M.D., New York. H. F. Campbell, M.D., Augusta, Ga.  
 T. Gaillard Thomas, M.D., New York. R. B. Maury, M.D., Memphis, Tenn.  
 William T. Lusk, M.D., New York. E. S. Lewis, M.D., New Orleans, La.  
 William M. Polk, M.D., New York. J. T. Searcy, M.D., Tuscaloosa, Ala.  
 Paul F. Mundé, M.D., New York. R. A. Kinloch, M.D., Charleston, S. C.  
 S. O. Vander Poel, M.D., New York. Hunter Maguire, M.D., Richmond, Va.  
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 A. J. C. Skene, M.D., Brooklyn, N. Y. W. J. Howard, M.D., Baltimore, Md.  
 S. D. Gross, M.D., Philadelphia, Pa. D. W. Yandell, M.D., Louisville, Ky.  
 Wm. Goodell, M.D., Philadelphia, Pa. Seth C. Gordon, M.D., Portland, Me.  
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 T. A. Reamy, M.D., Cincinnati, Ohio. E. A. Woodward, M.D., Brandon, Vt.  
 C. D. Palmer, M.D., Cincinnati, Ohio. Alfred Crosby, M.D., Concord, N. H.  
 G. J. Engelmann, M.D., St. Louis, Mo. E. S. Dunster, M.D., Ann Arbor, Mich.  
 R. Beverley Cole, M.D., San Fr'sco, Cal. A. J. Stone, M.D., St. Paul, Minn.

Other names may be added to this list from timeto time. Over \$2,200 paid in.

NOVEL LARYNGOSCOPE.—Dr. Thomas Dimock states as follows to the *Therapeutic Gazette*: "One of the best methods for examining the throat without the aid of the ordinary laryngoscope is the following; Bring the patient near a good light of any kind, and after the mouth has been opened place on the tongue a depressor, then request the patient to yawn. The larynx will immediately rise up, and every part necessary to be seen will be brought fully into view. The nose should be held, as this compels breathing through the mouth. Thus the velum pendulum palati is raised, the anterior and posterior pillars become widened, exposing the back of the tonsils and pharynx. The tongue must be pressed downward very gently, as it always resists harsh treatment."

APHTHOUS VULVITIS OF CHILDREN.—Sarazin (*Thèse de Paris*, July, 1883) gives the following conclusions regarding this affection: 1. Aphthous vulvitis is a well-marked disease. It is peculiar to little girls from two to five years of age. Rare in private practice, it is observed especially in hospitals. 2. Measles is the principal cause of this affection. It furnishes two-thirds of the cases. 3. Gangrene of the vulva has most frequently aphthous vulvitis for its point of departure. 4. The prognosis, which was unfavorable before the employment of the iodoform treatment, has become quite favorable since the introduction of this agent as a topical application. 5. The treatment consists in sprinkling the affected parts with iodoform powder, and keeping them separated with pledgets of lint. The internal administration of tonics is a useful adjuvant of the local treatment.—*Journal of Cutaneous and Venereal Diseases*, Oct. 1883.

TRANSPLANTATION OF MUSCLE IN MAN.—Helferich (*Archiv. f. Klin. Chirurgie*, B. XXVIII., p. 562) reports a case in which, as a result of the removal of a fibrosarcoma from the arm of a woman aged 36, the whole upper half of the biceps, with the exception of a thin strand at its outer part, was extirpated. Into the cavity which was left he promptly introduced a large fragment of the biceps from the leg of a dog. The cut surfaces were carefully brought together with sutures, as little injury as possible being done to the parts. The transplanted muscle was much more voluminous than the original portion, and was, long after the operation, distinctly perceptible to the touch. Electric experiments, instituted about three months after the operation, showed that the biceps reacted naturally to both kinds of current. The high point of stimulation, situated at the point of section of the musculo-cutaneous nerve, was, however, absent. The movements at the elbow-joint were almost normal.—*Lancet*.

THE MICROBE OF HYDROPHOBIA.—At the Academy of Medicine recently, Pasteur referred to his discovery, in the saliva of a child who had died of hydrophobia, of a microbe susceptible of cultivation and of inoculation in guinea-pigs, causing their death, and stated that after culture-experiments it could be introduced into rabbits without fatal results.—*La France Méd.*, No. 64.

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## MEDICAL NEWS.

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A UNITED STATES PHARMACOPŒIA.—The proposed effort of the United States Government to obtain control of the United States Pharmacopœia, by having it revised periodically by committees of the Army, Navy, Marine Service, the American Medical Association, and the American Pharmaceutical Association, is such a supreme piece of folly as to be unworthy of criticism. It is remarkable that any portion of the *disinterested* medical press has given the subject serious consideration. Barnum did succeed in making "a happy family," by placing the cat and rat, the dog and cat, the hawk and fowl, etc., in the same cage, but even Barnum could not induce the organizations above mentioned to work together with any peace and harmony.

PHYSIOLOGY, HYGIENE, AND ALCOHOL IN THE PUBLIC SCHOOLS.—Senator Gilbert's bill (in the New York Legislature), requiring instruction to be given in the public schools of the State on the subject of physiology and hygiene, with special reference to the effects of alcohol on the human system, occupied most of one session of the Senate. One of the opponents of the bill offered an amendment, providing that a "fearful example" should be hired for each school at \$1,000 per annum. The bill is a foolish one.

THE BICEPS OF THE MAN AND THE BEAR.—It has been generally believed that the biceps of the bear is far more powerful than that of man. All who have been thus deceived will read the following piece of news with great interest and satisfaction: "There is a pleasing tale of a Wisconsin girl who attended a picnic and wandered some distance into the woods with the possible expectation that some one would follow her. While she was seated on a log wondering if *he* would never come, a grizzly bear stole up behind her, and bracing his hind feet against the log, hugged her *with all his might*. Dreamily closing her eyes, the girl murmured: "Is that you, Charles? Clasp me closer, dear," whereupon the humiliated bear went back to the forest, "all brokey up."

A MONTHLY LETTER FROM PARIS.—The readers of this item of News will be glad to learn that Dr. Edward Warren (Bey) will send from Paris a monthly letter to this JOURNAL. There is no one who is better qualified to make such communications interesting and instructive.

CENTRAL LUNATIC ASYLUM.—The investigation of the management of the Central Lunatic Asylum, at Anchorage, Ky., has been in progress before a committee appointed by the Legislature. Daily sessions have been held in Louisville. Dr. Robert H. Gale, the Superintendent, is represented by an attorney, and the investigation appears to be thorough and impartial. Facts have been brought to light that are simply astounding. It is hard to believe that the heartless cruelties that have been practised on the helpless wards of the State, by brutal attendants, could possibly have escaped the attention of Dr. Gale. If he was ignorant of what has been done, he is certainly not the proper man for the place, and ought to be summarily removed.—*The Danville (Ky.) Advocate*.

TWENTY per cent. of funeral receipts are offered by London undertakers to London physicians who give them or secure them an order. They have imitated the retail druggists.

THE DWIGHT LIFE INSURANCE CASE.—The expert testimony in the contest of the insurance companies to escape payment of the amount of the policies in this now famous case has not, thus far, been fully printed. Dr. Horatio C. Wood, a professor in the University of Pennsylvania, who was one of those experts on behalf of the life insurance companies, contributes to the *Medical News* a summary of the evidence. The professor says the experts were remarkably free from serious disagreement, that there was no evidence to show that overdoses of morphia had been given, and that no medical man ventured to assert that Colonel Dwight died from other cause than strangulation. Colonel Dwight's death occurred in November, 1878, at which time his life was insured for \$256,000; only the first quarter's premium was ever paid on any of the policies, their annual maintenance would have cost over \$8,000, the insured was at the time in bankruptcy, and the first premiums were paid with borrowed money. The most of the insurance companies have refused payment, claiming that Colonel Dwight committed suicide; and although the courts have once given judgment against the companies, it is said they will appeal and further contest the case.

SUSPENDED BECAUSE COLOR BLIND—PHILADELPHIA, March 2.—The Pennsylvania Railroad Company still continues the examination of its employees for color blindness and other defects. This has been continued for a number of years, the men being examined in gangs. The general manager of the company states that these examinations have resulted thus far in ascertaining that about 4 per cent. of those examined have proved defective either in hearing, vision, or ability to distinguish colors. Nearly 500 men have been so unfortunate as not to pass the examination, and were suspended.

FOLLY.—The grant of £10,000 to the Physiological Laboratory of Oxford is considered as a national disaster by the British anti-vivisection organs.

NEWSPAPER NOTORIETY.—A recent Sunday issue of the *New Haven Register* treats its readers to almost a column and a half descriptive of the details of a Cæsarean operation, and it is only a few months since a Philadelphia newspaper gave about as full an account of a Porro-Muller operation. In both instances the names of the operators, as well as those of their assistants and the consultants, are given most impartially, coupled with glowing tributes to their skill and learning.

ABOUT MACCARONI.—The macaroni made in the United States is considered superior to that from Italy and brings a higher price. American flour is greatly preferred by the manufacturers, and farina is considered still better. Most of the macaroni consumed in America is made in New York and Philadelphia.

POWERS & WEIGHTMAN lost nearly their entire chemical works by fire February 29th. Loss \$1,000,000.

DR. ROBERT COLEMAN, age 53, one of the most prominent and popular physicians in Richmond, Va., died recently. Dr. Coleman served in a professional capacity in the Confederate Army throughout the war, being at one time chief surgeon of Stonewall Jackson's corps, and later Medical Inspector of the Army of Northern Virginia. Since the war he has filled one of the principal professorships of the Virginia Medical College.



WESTON'S WALK.—Shortly after finishing the first half of the whole 5,000 miles of his great task, in Liverpool, on the 17th of January, at about half-past 9 P.M., Weston underwent a critical examination by Mr. Sibley Hicks, of that city, at the request of a physician in London. Mr. Hicks reports Weston as walking splendidly, and, after retiring, having a pulse of 68, with a temperature of 98°, and weighing 9st. 10lbs. 4oz. Weston had thus gained 2½lbs. in the last 500 miles, notwithstanding that he had, on the preceding day, walked 47 miles without a halt. Mr. Hicks considers Weston in perfect health, and an excellent specimen of strict temperance.

PHOTOGRAPHY IN HOSPITALS.—Most of the French hospitals, according to a contemporary, *Engineering*, have now a photographic studio attached for photographing the sick persons at different times. The rapid dry-plate process is employed, and Professor Charcot, of La Salpêtrière, has devised an electrically worked camera, which is very useful in taking a series of views in rapid succession.

PROGRESS OF THE JOHNS HOPKINS HOSPITAL.—The annual meeting of the trustees of this institution, held on the 12th inst., was the occasion for making known its present condition and future prospects. The expenditures during the last year were \$211,006.36. It is estimated that over \$400,000 more will be required to finish the work. The maximum amount of annual income available by the trustees does not now exceed \$135,000, and it is therefore evident that economy is necessary with judicious expenditure of the funds at command. The trustees have wisely determined to proceed slowly, having the work done well and thoroughly, recollecting that it is not for a day but perhaps for centuries. They therefore announce that with the available income it will be impossible to open the hospital before October 1, 1886, a year later than was hitherto contemplated.

THE TIME IT TAKES FOR THE PASSAGE OF A PENNY THROUGH THE BOWELS.—Dr. A. Ten Eyck, of De Forestville, N. Y., writes that a girl aged two years, while playing with some pennies, accidentally swallowed one. At the end of six months it was discovered in one of the faecal passages.—*N. Y. Record*.

NOTE.—This must have been a bad penny. Dr. Chapman, of Philadelphia, says that "good coin will always 'pass' without difficulty."—ED.

DR. B. W. RICHARDSON, of London, enjoys the distinction of being the editor, publisher of, and only contributor to a new quarterly medical journal, entitled *The Asclepiad*.

THE Queen has been pleased to grant to Sir Richard Owen, in recognition of his eminent services to science, an addition of £100 to the Civil List Pension of £200 a year which he at present enjoys.

NEW YORK STATE MEDICAL ASSOCIATION.—In consequence of the action of the State Medical Society in resolving to adhere to the New Code of Ethics, a number of members who are supporters of the National Code met at the Delavan House, Albany, February 6th, and formed a new State Society, which is to be known as the New York State Medical Association. Sixty-five gentlemen from all parts of the State signed the roll, and much enthusiasm was displayed. The following officers were elected: President, Dr. H. D. Didama, of Onondaga County; Vice-Presidents, First District, Dr. J. Mortimer Craw, Jefferson County; Second District, Dr. Tabor B. Reynolds, Saratoga County; Fourth District, Dr. B. L. Hovey, Monroe County; Fifth

District, Dr. N. C. Husted, Westchester County; Recording Secretary, Dr. Caleb Green, Cortland County; Corresponding Secretary, Dr. E. D. Ferguson, Rensselaer County; Treasurer, Dr. John H. Hinton, New York County; Advisory Council, Drs. John P. Gray, Conant Sawyer, J. W. Moore, Thomas Wilson, Ely Van de Warker, Frederick Hyde, M. W. Townsend, E. M. Moore, E. R. Squibb, Austin Flint, Jr., and J. W. S. Greeley. The Association will next meet in New York on the third Tuesday in November, 1884.

THE SACRED WHITE ELEPHANT.—The Siamese minister in London announces, apropos of Mr. Barnum's white sacred elephant from his country, that the existence of sacred elephants, white or black, is altogether unknown in Siam, and the dermatologists of London say that such pretensions as the beast can make to being white are based on a disease, leucoderma. Robbed of the attributes of sacredness and whiteness, it becomes simply an elephant with a disordered skin.—*Boston Medical Journal*.

It is satisfactory to learn from Mr. Mundella that a Bill is under the consideration of the Government, dealing with the whole subject of patent medicines, and that the measure will shortly be introduced in the House of Lords.—*Lancet*.

TRICHINÆ.—It seems to have occurred to the French Government that the opinion of the highest medical authority in France would be worth having on the question of pork importations. Accordingly the Minister of Commerce has interrogated the Academy of Medicine and has been informed that the admission of foreign salt pork could be permitted without fear, and that it has been clearly proven that no danger to the public health has been caused by such importation. As this fact—it is not merely an opinion—has been known to the Government for at least two years, it would be rash to suppose that its assertion by the Academy of Medicine will produce any change of policy. But it will afford an excellent excuse for a change, if the Government has concluded that public opinion requires one.

THE ILLINOIS STATE BOARD OF HEALTH.—At the last annual meeting of the Board, the officers were re-elected, as follows: The Hon. Newton Bateman, LL.D., president; John H. Rauch, M.D., secretary; A. L. Clark, M.D., treasurer. It was ordered that diplomas issued by the College of Physicians and Surgeons, of Joplin, Mo., and by the Kansas City Hospital Medical College for the current session, 1883-84, could not be received as the basis for certificates entitling to practice in Illinois.

THE death of Dr. George Engelmann, of St. Louis, Mo., occurred at 5:30 o'clock P.M., February 4. He had been ill for about a week and was only considered dangerously so about three days before his death. He passed away just two days after the seventy-fifth anniversary of his birth. Dr. Engelmann was born in Germany, at Frankfort-on-the Main, February 2, 1809.

In April next, Professor Frerichs will have completed twenty-five years of service as Director of the Medical Clinic in Berlin. It is intended to celebrate the occasion by a public festival; and a committee, consisting of Professors Bardeleben, Lauer, Leyden, and others, has been formed to carry out the object. A marble bust of Frerichs will be unveiled on the occasion.

“THE PROCEEDINGS OF THE MEDICAL SOCIETY OF THE COUNTY OF KINGS.”—This monthly publication will be discontinued on the completion of its eighth volume.

SIR SPENCER WELLS IN ITALY.—Sir Spencer Wells, making a short holiday in Italy, has been received at Rome and Naples in a manner which must be highly gratifying to British surgeons. At Rome, he was introduced to the students by Professor Mazzoni, and received with southern enthusiasm. At Naples, he was publicly addressed at the Anatomico-Pathological Institute of the Clinical Hospital, before a crowded assembly of students, by Professors Schrön and D'Antona, acknowledging the services he had rendered to the surgery of the whole world, and wishing him long life and prosperity. In reply, Sir Spencer addressed the professors and students in Italian, responding to their cordial welcome, and expressing his hope that some of those present, now students, would hereafter deserve and receive from the future surgeons of Great Britain as gratifying a reception as he had the pleasure of acknowledging from his Italian brethren.

SWISS MEDICAL COLLEGE.—The medical students of the Swiss Universities are thus distributed: Basle, 108; Berne, 127 males and 28 females; Zurich, 184 males and 33 females; Geneva, 84 males and 7 females. Only five of the women are Swiss, and all the others are Russian.

THE BRITISH MEDICAL ASSOCIATION MEETING AT BELFAST.—The fifty-second annual meeting of the Association will be held on July 29, 30 and 31, and August 1, 1884, at Belfast, under the presidency of James Cumming, M.A., M.D., F.K.Q.C.P.I., Professor of Medicine, Queen's College, Belfast.

THE SEWER SYSTEM OF DENVER.—Colorado and Denver (as its chief city) has become so much of a health resort that it has become very essential that its sanitary arrangements should be well looked after. The difficulty about its water supply has been overcome by the boring of artesian wells, which furnish an abundant supply of most wholesome water, and a most efficient system of sewerage has been introduced.

THE Medical Society of North Carolina will hold its annual meeting in Raleigh on the 20th May. It is expected that the meeting will be a large one, as it will be a very important one, a new Board of Medical Examiners will be elected to serve for the ensuing seven years.

In a bill introduced by him into the House of Commons, Mr. Monckton, M.P., proposes to direct every sanitary authority to appoint inspectors to supervise the arrangements of houses in their bearing upon the health of the inmates.

THE first annual report of the New York Skin and Cancer Hospital has just been published. In it the following figures in reference to the increasing mortality from cancer in New York City are given: In 1869 there were 304 deaths from cancer, being a little over one per hundred of deaths from all causes. In 1879 there were 572 deaths from cancer, or a trifle over two per hundred of all deaths, that is, in ten years the proportion of deaths from cancer had nearly doubled. In 1880 there were 659 deaths from cancer, or 2.06 per cent. of all deaths, the mortality from the disease being greater than that from scarlet fever, which amounted to 618. In 1881 cancer caused 707 deaths, and 1882 731 deaths, while during the fourteen years mentioned there were 6,843 deaths from it. Up to the time of the establishment of this hospital cancer patients were admitted to only one or two institutions in the city, and then not for the purpose of treatment, but simply to await the fatal termination of the disease, and nowhere in this country had cancer cases been grouped together with a view of studying the disease as to its nature and cure.

DIED, in Fort Worth, Texas, January 23, 1884, Mrs. Fannie Smith Daniel, wife of Dr. F. E. Daniel, of the *Courier-Record*. Born July 28, 1848, and aged at the time of her death 35 years, 5 months and 25 days.

ROYAL DOCTORS.—The prince physician, Duke Charles Theodore of Bavaria, M.D., has been promoted to a lieutenant-generalcy by the king, but will not take any active part in military matters. A second scientific scion of the Wittelsbach family, Prince Louis Ferdinand, recently married to a sister of the King of Spain, has in press a monograph of comparative anatomy on the human and animal tongue, with upwards of a hundred and five illustrations. He made the investigation for his work partly in the anatomical institute of Prof. Rüdinger, partly in his own laboratory at Nymphenburg Castle.

THE Philadelphia County Medical Society having refused to admit female physicians to membership, a society has been formed, under the name of the Philadelphia Clinical Society, which will give to the female practitioners of this county the opportunities of membership in an active organization. A meeting was held on Friday, January 25th, at the Hall of the College of Physicians. Officers were elected, and the work of organization was completed.

THE International Otological Congress will be held at Basle, September 1, 2, 3, and 4, 1884. The titles of communications intended to be made to the congress should be made known to Dr. Burckhardt-Mérion, of Basle, before the 15th of May.

BERMINGHAM & Co., medical publishers, of 28 Union Square, who made an assignment on the 19th ult., have resumed business, the temporary embarrassment which caused the assignment having been removed, and the assignee having reassigned to said firm. The February number of the *Æsculapian* has not yet appeared.

PASTEUR.—Lady Claude Hamilton, with the assistance of Prof. Tyndall, is translating the life of the French scientist, Pasteur.

MEDICAL TESTIMONIALS FOR SALE.—The London *Lancet* mentions an occurrence which goes to show that the British profession is not altogether wanting in certain elements, the existence of which in the profession of this country are doing much to scandalize it. The occurrence referred to is the offer from a medical man to supply, for a pecuniary consideration, testimonials in laudation of the goods of a certain manufacturer.

HOSPITAL CHAPLAINS IN PARIS.—The *Lancet* states that the abolition of chaplaincies at the Paris hospitals has excited the indignation of the archbishop of the city, who advises the faithful not to send the sick to the hospitals, but to organize a system whereby they may be treated at home.

THE Senate of the United States has recently voted to recompense Surgeon E. P. Vollum, of the army, for the loss of his personal effects sustained by shipwreck while in the line of duty in the year 1856. The amount awarded is \$700.

DIED, suddenly, March 12, of "neuralgia of the heart," (?) Dr. Lunsford P. Yandell, of Louisville, Ky.

THE Senate Committee on Commerce is reported to have acted favorably on an amendment to the shipping bill, providing for the abolition of the present system of supporting the marine hospitals by a tax on sailors, and throwing the expense directly on the Government.

THE Meharry Medical Department of the Central Tennessee College, in Nashville, has just graduated eight colored physicians.

ÆSCULAPIANS.—During some excavations at Epidaurum, in the Morea, among the ruins of a celebrated temple to Esculapius, five statues were found. One was a Roman attired in the chlamys, another a Satyr, another a Hecate pondering over spells and expiations, and two others were of goddesses not yet identified. Thirty inscribed tablets were also found.

THE Anchorage Insane Asylum of Kentucky is not conducted on precisely the same principles which distinguish the treatment of the insane at Gheel. It seems from investigation that a frequent method of quieting an excited patient was to throw him down, and then for several attendants to jump upon him. Another who did not want to retire to his cell was persuaded by a strap around his head, by means of which he was dragged along the floor to his destination. Tying patients with their hands under their legs, and especially ducking them, seemed to be a common form of moral suasion. Officers and keepers of the institution, including the assistant physician, solaced themselves after the arduous labors involved in these forms of treatment by getting drunk and playing cards for money. Where the alienist who has charge of the asylum was whilst all this was going on we do not know, but we hope to have the pleasure of recording that his address will not continue to be Anchorage. It is a great pity that there are no laws to properly punish such men, the penitentiary would be inadequate.—*St. Louis Weekly Medical Review.*

PROF. JOHN C. DALTON has been elected President of the College of Physicians and Surgeons, New York.

WILLIAM MARION SIMS, younger son of the late J. Marion, M.D., and Eliza Theresa Sims, died on Friday, February 29th, after a lingering illness.

“BURKING.”—A horrible story comes from Cincinnati, which, though authenticated beyond doubt, is difficult of realization, making the crime not a tale of the past, but a terrible reality of the present. Two negro “resurrectionists,” after making arrangements with the demonstrator of anatomy of the Ohio Medical College for the delivery of the “subjects,” deliberately murdered a family consisting of three persons, and delivered the bodies at the college according to contract. [It is foolish to say this of the demonstrator.—ED.]

THE trustees of the Presbyterian Hospital in Philadelphia have finally refused to accept the \$2,500 sent to them by the managers of the recent charity ball as the hospital's share of the proceeds of the ball. “It is our conviction,” they say in their letter declining the gift, “that it would be inconsistent in us to accept means for the support of the work which the Church has given us to do, in its name, and under its direction, which the Church itself could not accept—which you would neither ask nor expect the Church to accept.” At the same time they thank the donors for their offer, and express the hope that their motives in declining and the convictions that have constrained them will be so regarded that it shall not be thought that they are uncharitable or unfriendly in their action.

THE INTERNATIONAL MEDICAL CONGRESS.—The time of the meeting of the British Medical Association at Belfast has been fixed so as not to interfere with the International Medical Congress, which is to begin at Copenhagen on August 10th.

SEA AIR FOR NURSING MOTHERS.—A movement is on foot to establish, somewhere within a short distance of New York, a sea-side home exclusively for nursing mothers and their infants. The need for such an institution is made apparent by an examination of the mortality statistics in the office of the Board of Health. Of the 38,624 deaths occurring in New York during 1881, 9,691 were children under 1 year of age; in 1882, out of 37,924 deaths, 9,867 were children under 1 year, and in 1883, in 34,011 deaths, 8,677 were of children of the same tender age. The greatest mortality among children is in the summer, as the following statistics show: In July, 1881, out of 4,296 deaths, 1,798 were children under 1 year; while in January of the same year in 3,148 deaths only 641 were infants; out of 4,498 deaths in July, 1882, 2,032 were infants. During the month of July the deaths of children under 1 year of age constituted nearly one-half of the total mortality.

These deaths occur, in the main, in the tenement districts, and are due largely to the unhealthful condition of the houses. It is believed by competent authorities, that much suffering and sickness might be averted and the death-rate among infants materially lessened if they and their mothers could be given a month each year at the sea-side. Such a house as it is hoped may be secured would accommodate at small expense a large number of mothers and their infants. A meeting of ladies interested in the subject has been held, and a thorough discussion of the project had.

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## EDITORIALS.

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PHYSICIANS AND PENITENTIARIES.—While this subject has no reference to the mortar and pestle, or to the bistoury, the stethoscope, or even the speculum, it is still one which, in these days of professional responsibility and supervision, should command the careful attention of every physician. It is true that few physicians become medical attendants of penitentiaries, but very many are consulted by the people and their representatives in regard to the various subjects which are inseparable from penitentiary administration. Shall the medical man say that he knows nothing of subjects which are a part, or are supposed to be a part, of his medical education, or shall he be prepared to give aid and professional information when he is requested to do so? There can be but one answer.

Of course, there can be no difference of opinion as to those questions which concern the mere bodily health of the convicts. These unfortunates must have a sufficient supply of clean, warm clothing: clean warm beds. The night cells must be clean and well ventilated, and each patient have not less than 800 cubic feet of pure air. The night-buckets, used for receiving the fluid, and possibly the faecal discharges of the convicts, should be well covered and absolutely clean; or, if possible, the convicts should have night access to properly policed and guarded closets. The bathing facilities should be abundant, and absolute bodily cleanliness be made obligatory. The diet should be scientifically regulated as to quantity and quality, and the supplies should be sound, sufficiently varied and well cooked. There should be no overwork or overstrain, and the hospital should be as complete and efficient as modern science can make it. About such questions there can, among physicians, be no dispute.

There are, however, others in regard to which there will be much difference of opinion, but in relation to which the physician should have very definite and defensible views.

Should the management of the inmates be punitive or reformatory in intent and character? Of course, the ignorant and the foolish hold that a murderer is executed with the view of punishing him; while the intelligence of humanity and the philosophy of the law require that the death penalty should be exacted, only for the safety and good of the community and the State. Is the truth in regard to the direst penalty (death) equally the truth in regard to the lesser penalties? Should the management of the convict be such as to punish him, or such as is best for the community, the man, and the State? Should it be punitive or reformatory?

It may safely be said that incarceration and compulsory labor are sufficiently punitive, and if this be so, should not the management of each inmate be such as to make him a better man, a safe member of society, and an advantage rather than a curse to the State, at the end of his term? More than this, should he not be taught "a trade," and not be made simply a unit in any process of manufacture: and so be as helpless, when liberated, to earn a livelihood, by a trade, as he was when first incarcerated? In other words, should not the penitentiary service be to the convict polytechnic, rather than punitive in character? More than this, should the unfortunate culprit not receive mental and moral training, through the agency of books, papers, and the varied forces appertaining to a Christian civilization?

Should not all degrading influences be avoided? Should his zebra-like suit, his striped clothing, as often as looked at, degrade and injure him in his own esteem, or should he be allowed to feel that, even if fallen, the State has not robbed him of all the attributes of manhood, and that, if he do his part, he may yet be a man again?

It is of course understood that the striped suit is used as a precautionary measure; that the convict, if possibly escaping beyond the walls of the penitentiary, may be identified as a convict, and be the more easily captured; but, by the same course of reasoning, he might have placed upon him (as is done in some institutions) the ball and chain. This providing for some possible future contingency, by wrong action in the present, is manifestly censurable. It is kindred in its reasoning to that of the lame military officer, who commenced retreating the evening before the day of battle, because, as he said, "his command might be defeated, and if so there would be one less captured."

Unquestionably every action degrading in its results should be avoided in all efforts at reformation. Such gross errors belong to the legislation of the past. They are kindred to the degrading use of the public stocks and pillory, in which the culprit was formerly jeered at, ridiculed, derided, and even pelted, as was often the case, with rotten eggs and the decomposing remains of dead animals. The day for combining degradation with punishment has passed away. It is contrary to the genius and philosophy of contemporaneous legislation. This seeks not only the good and safety of the State in dealing with its prisoners, but also that equally high and lofty object, the reformation of the charac-

ter of the guilty: the restoring of them, after the allotted period of punishment, to society: not as consumers but as producers: not as vile and dangerous creatures but as useful and reliable citizens. Degradation of convicts only forces them into the deeper sinks of vice and iniquity, leading them often to the murderer's act and the murderer's penalty: while reformatory legislation leads to reformation of character, to the saving of the individual, and to the welfare of the State.

What are the well-known psychological results of punitive administration upon convicts? Are they not always such as to embitter them, to render them worse, to fill them with a spirit of bitter revenge to be gratified when released from captivity? Keeping clearly in view the object of penitentiary incarceration, viz., the safety of the community and the good of the State, are not these best secured by protective, and even a polytechnic, administration, rather than by one punitive in character and execution?

Are these psychological problems fit themes for the physician in his highest relations to communities, or are they to be relegated to brutal contractors, whose solution of them is to be expressed in dollars and cents, and not in the welfare of the State and of humanity?

In a recent examination of the physician of a large penitentiary, by a committee (of the Legislature), as to the psychological effects of the administration upon the convicts, he seemed to know nothing more than what is the proper dose of quinine, and the therapeutic effects of castor oil. The occasion for doing something for his fellow-men, for the State, for society and for his profession, was barren and fruitless, because he had up to that period never reflected upon the subject, but supposed that his highest function was to make a pill or to administer an enema.

TRICHINÆ.—WASHINGTON.—Commissioner Loring has laid before the President the report of the commission appointed to examine the swine industry of the United States, and into the allegations relative to the healthfulness of pork products. The inquiry embraces the origin and history of hogs which make up the market supply, their condition on farms, the methods of management, transporting, treatment at stockyards, manner of slaughtering, curing, packing, handling, and shipping of pork products, the effect and extent of hog disease, necessary preventive measures, and effect of the curing process on trichinæ. The methods of breeding and rearing and fattening of swine are elaborately set forth, and the report is emphatic that there is no condition surrounding the industry which tends to propagate disease or render pork unhealthful. It finds the number of hogs raised annually to be about 30,000,000, making a total of cured meats, lard, and other products of 4,725,000,000 pounds. The most careful, thorough, and minute inquiry seems to have been made in the handling of pork from the farm to port of debarkation. Statistics of the Department of Agriculture are quoted, showing many interesting facts relative to this branch of the subject, such as the world's supply of swine, comparative values, domestic distribution, foreign trade, values of corn crop, &c.

From returns from railroad and transportation companies, slaughter-houses,



packers, and shippers, confirmed by those from Boards of Health, humane societies, and experts employed by the commission, it appears that the utmost care is preserved throughout; that dead hogs are never transported except to offal-rendering establishments; that diseased hogs are refused transportation; that humane laws and sanitary regulations exist at all stockyards, enforced by local inspectors under penalty of fines, etc.; that rigid scrutiny is enjoined at all slaughter-houses; that methods of slaughter and packing, qualities of material used, inspection, etc., are regulated by rules of the Chambers of Commerce and of Trade, and constant care is exercised to see that no unhealthful means are employed in any branch. Of the extent of diseases, preventive measures, and the effect of salt on trichinæ, the report is full of valuable and interesting information. Even the extremely small percentage of trichinosis, as shown by the investigations of the Agricultural Department, seems to be largely removed by processes of curing. The degree of heat necessary to render pork harmless is treated of at length. The commission deny that the hog cholera is dangerous to human health, and assert the impossibility of curing such meat even so as to deceive the most superficial examiner. The report points out the practicability of a microscopic inspection, if such is necessary, to remove existing restrictions. The commission states that their examination proves American pork fully equal, perhaps superior, to that of France or Germany. No general disease exists, and the occasional presence of trichinæ is comparatively unimportant.

The report is signed by the Hon. George B. Loring, chairman of the board; Mr. E. W. Blatchford, of Chicago; Professor Chandler, of New York; Dr. D. E. Salmon, of the Department of Agriculture, and Mr. F. D. Curtis, of New York, and in conclusion it says: "While we believe that no legitimate ground exists for the restrictions imposed in some foreign countries on the importation of American pork, we are satisfied that microscopic inspection of all pork for export can be secured at the packing-houses if such inspection should be demanded." The report makes about 125 printed pages.

SIR JOSEPH LISTER has been handsomely entertained by the Manchester University Club. To the speech of Mr. Hardie, Mr. Lister replied fully, and in his speech made use of this language—this very extraordinary language. He said:

"Reference had been made to the honor which had recently been conferred upon him; he confessed it was an honor he for one never coveted. To be permitted, if it might be so, to do something yet in the way of making more clear and also more simple the treatment of surgical wounds had been to him something incomparably more valuable than any titular distinction; and when he remembered that some of the grandest men in the history of British surgery, men in comparison with whom he felt like a dwarf in the presence of giants—men like Cheselden, Hunter, Abernethy, and Syme—had gone to their graves with no other honor than the imperishable renown that attached to their achievements—he said with these considerations he would have been well pleased to have remained untitled. Nevertheless, when this honor was offered

to him by the Prime Minister, on behalf of Her Majesty, in recognition, as Mr. Gladstone expressed it, of the 'distinguished services you have rendered to your profession, and to those interests of suffering humanity with which it is inseparably connected'—coming in this way, and promising to be, so to speak, an expression of the approval of Her Majesty and her advisers of those principles which he had for so many years striven to maintain—under these circumstances he felt it was not for him to refuse the honor which was offered to him."

If this be genuine, it is certainly very beautiful as well as very remarkable. In a country where titular distinction is regarded as the prize above all prizes, by the Church and Bar, by literary men, by the Army and Navy, and by all of the people, the representative of such language as that just quoted certainly exposes himself to the sharpest suspicion.

As to his receiving honors which his superiors had not received, this certainly is a beggarly argument indeed. If men were to refuse, or repudiate, or undervalue honors, because their superiors had not received them, who could accept distinctions and rewards? That Abernethy and Hunter and Cheselden did not receive such honor, only shows how rapidly medical science and its representatives have progressed in the appreciation of crowns and governments; it certainly does not furnish argument for refusing honors, or for undervaluing them. If Mr. Lister is earnest and sincere, he is even more remarkable morally than he is professionally; and professionally he is a giant, indeed.

LIP-READING BY DEAF-MUTES.—A number of instructors held a conference February 27th, in this city, at the Institution for the Improved Instruction of Deaf-Mutes, in Lexington avenue, to make arrangements for a convention of American deaf-mute instructors, who teach articulation and lip-reading. The convention will be held in this city sometime during the coming summer, and will be the first of its kind. There are at present in the United States 58 deaf-mute schools maintained by the different States. The aggregate number of pupils is over 7,000. Only about 10 per cent. of these are taught how to use the voice. The balance depend upon science and lip-reading for their communication with the world. Although the use of the voice is but little taught in this country, that method is used exclusively in the European schools. Its superiority over the sign method was affirmed by the International Congress for the Amelioration of the Condition of Deaf-Mutes, which met in Milan, Italy, in August, 1880, and the impetus given to the method by this indorsement is beginning to be felt in this country. There are over 100 teachers of this method in this country now, and a determined effort will be made to extend its influence.

At the conference mentioned there were present Principal D. Greenberger, of the Lexington avenue institution; Principals of institutions at Northampton, Mass., Boston, Portland, and Philadelphia, and Prof. A. Graham Bell, the inventor of the telephone. Prof. Bell's interest in the education of deaf-mutes arises from the fact that his wife is deaf and has become an adept at lip-reading. Prof. Bell also introduced into this country a universal alphabet, known as "visible speech," of which his father was the inventor.

It is a singular coincidence that the wife of Prof. Morse, the inventor of the telegraph, was also a deaf-mute, and was taught lip-reading, in which she became very expert, by her husband.

THE FUNERAL OF DR. AMBLER.—WASHINGTON, Feb. 25.—The body of the late Past Assistant-Surgeon James M. Ambler, United States Navy, was conveyed February 23d to Virginia from New York, under the escort of Chief Engineer Melville, Surgeon Gravatt, Lieuts. Jacques, Danenhower, and Scheutze, and Past Assistant-Surgeons Harmon, Gaines, Rixey, and McClurg, and accompanied by his brother, Edward Ambler. The party was joined at Baltimore by representatives of the Medico-Chirurgical Faculty of Maryland, University of Maryland, and Clinical Society of Baltimore. The body arrived in Washington, and was met at the station by Medical Directors Browne and Gihon, Surgeons Van Reypen and White, and Past Assistant-Surgeons Street, Green, and Nash, and transferred to the special train which had been tendered by Mr. John S. Barbour, President of the Virginia Midland Railroad. The funeral train was received with demonstrations of respect along the route, and reached Markham at 2 P.M., where the body was placed in a hearse covered with a union-jack and the floral wreaths which had been accumulating all the way from Siberia. The pallbearers were Medical Directors J. M. Brown and Albert L. Gihon, Surgeon William K. Van Reypen, Acting Chief Bureau Medicine and Surgery; Surgeon Charles H. White, and Chief Engineer George W. Melville, and Lieut. John W. Danenhower, Ambler's surviving comrades of the Jeannette; Lieut. William H. Schentze, who brought his body from Siberia, and Lieut. William H. Jacques, representing the Secretary of the Navy. The procession was very long, the carriages being followed by several hundred mounted residents of Fauquier County, Va., many of them Dr. Ambler's former comrades in the Confederate cavalry. The ceremony took place at Leeds Episcopal Church, about 4 P.M., the services being performed by the Rev. H. B. Lee, a classmate of Dr. Ambler at Washington and Lee University. Dr. Ambler's sisters and brothers received the body, his mother being too old and feeble to be present.

TESTIMONIALS.—The Committee of the St. Louis Medical Society reports on this subject at length, but sums up the whole matter as follows: "It is evident that giving certificates favorable to proprietary medicines or articles is in contravention of the requirements of *the letter* of the Code, and that they attest the efficacy of secret medicines, and is also equivalent to 'resorting to public advertisement.' *The spirit* is violated, in that it secures 'a special advantage, inconsistent with the equality of rights and duties pertaining to the profession.'

"Your Committee therefore recommend that the giving of certificates, as mentioned, be condemned and prohibited, and that the members of this society, who have such certificates now in publication, be required to immediately withdraw them."

The fact is, when physicians give testimonials in behalf of S.S. (Swift's specific), "warranted not to contain any mercury or iodide of potassium," "Buchu-pai-ba," "Mother Swan's worm syrup," "Rough on coughs," etc., the evil has reached a condition of public disgrace, and the profession ought to be ashamed of such

of its members. More than this, the giving of testimonials has become so disgraceful and disreputable, that manufacturers, *even of the worst compounds*, injure their wares and themselves by publishing such certificates. There are very many medical journals, claiming to be respectable, which publish, *for payment*, such certificates in their editorial columns.

THE Texas State Medical Association will meet at Belton, Texas, April 22d, 1884, and continue for four days. Dr. A. P. Brown, the distinguished president of the association, says: "The Gulf, Colorado & Santa Fe, and the Missouri Pacific Railways both run to Belton, and the Gould system of railroads and the St. Louis & Texas Railroad connect with these first named, making it easy to get to Belton."

The Committee of Arrangements say: "Ample arrangements will be made for all;" and they say they "will see that every physician is provided with a comfortable home, free of cost. The wives and daughters of all attending physicians are most respectfully and cordially invited to be present." "A committee will be present at each depot to meet and receive the physicians and their families and escort them to places provided."

All those expecting to attend will please notify Dr. Taylor Hudson, Chairman of Committee of Arrangements, who will give any other information desired relative to the meeting.

Nothing could be more hospitable and excellent, and it is hoped that the association will enjoy a happy and prosperous meeting.

The Committee of Arrangements will please accept the thanks of the editor of this JOURNAL for the invitation to deliver the address requested on this occasion, but much as such a meeting with old friends would give great pleasure, it is, for this year at least, utterly impracticable.

A NEW VIEW OF EXERCISE.—WALKING A GREAT SIN.—A prominent minister has just preached a sermon against dancing, in which he conclusively shows that dancing is sinful, because no man when dying sends for a dancing master to console him; because no man would wish to have inscribed on his tombstone: "He danced well;" and because dancing stimulates the desire for the intoxicating cup. Powerful as these arguments certainly are, they are equally powerful when used to show the sinfulness of walking.

What man on his death-bed ever sent for a pedestrian to console him? What man would care to have inscribed on his tombstone: "He was an eminent walker," and who will venture to deny that the exertion of walking makes a man thirsty and thus tempts him to drink? Moreover, if one looks at the men who have become eminent as great walkers, it is found that they are usually ignorant persons, whose highest ambition it is to keep a rum-shop and drink themselves to death. Why are the pulpits silent in the presence of a sin so terrible and widespread as that of walking? Where there is one person who is wicked enough to dance, there are ten who are so depraved as to be even habitual walkers.

Walking is evidently a great sin, for the preacher has said so. There is but one resource left to all who would lead correct lives, and that is to ride. Indeed,

it is this fact which explains the great and admitted morality of doctors. They do their work by daily riding.

ALUMNI ASSOCIATIONS.—This is the season for the annual meetings of the alumni associations. So far the height of their ambition and the extent of their achievements is to eat a dinner! What the colleges have done for the brains of these men is never once seen. The stomach is the only organ whose strength is invoked, and the only one called upon for duty.

What possible credit can such meetings reflect upon the colleges of which their alumni are members? One would suppose, to read the accounts of the entertainments, that they are the anniversary celebrations of the city's cooks. The speeches, too, are made up of gasconade and braggadocio. At one of the last of these entertainments, Mr. Chauncey M. Depew, a distinguished lawyer of New York, said that: "In a national sense, there were only two colleges whose physical and intellectual contests arrest the attention and arouse the enthusiasm of the American people." One would be amazed at such audacity, until he learns that the speaker is a Yale graduate, and was addressing an audience of Harvard alumni. The speech, too, was post-prandial, and these several reasons go far to account for the foolish assertion of the speaker. What the American people admire is a love of the alma mater by every graduate, but when anniversary meetings are held by the alumni of colleges, every one expects and looks for the triumphs of brains, and not of stomachs.

AN EVIL TO BE REFORMED.—It is usually supposed that all articles or criticisms in the review department of a medical journal are straightforward, honest judgments of the work reviewed; but such is not the case, and the fact that such is not the case constitutes an evil which cannot, for medical journals, be too speedily reformed.

Many of the literary magazines, "Harper," "St. Nicholas," "Appleton's," "The Century," "The North American Review," and many others, have (as a rule, and with few exceptions) adopted the pernicious, if not the unfair, course of having prepared each "a notice" of the coming, or current number. These notices are printed on postal cards, and sent to such periodicals as will "exchange" and give these monthly "notices," as prepared by the owners of these periodicals! To the shame of the press be it spoken, these offers are accepted, and the articles appearing in the review departments of most journals were prepared by the owners of the magazines reviewed. This is simply and clearly an injustice to subscribers.

This journal refuses all such "exchanges," and always will do so, on such conditions.

ARTIFICIAL EGGS.—The London (England) *Farmer* publishes the following statement: "The manufacture of artificial eggs across the Atlantic is largely increasing; and one establishment alone turns out upwards of one thousand every hour. The yolks are formed of a paste composed of corn-flour, starch, and other materials. The whites are made of albumen, and are chemically identical with the whites of real eggs. The inner skin is a film of gelatine, and the shell is of plaster of Paris, and is somewhat thicker than the original. The

yolk is first rolled into a ball, and frozen hard ; then it is enclosed in the albumen, and submitted to a rapid rotatory motion, which makes it a proper ovoid form, and again it is frozen. It is then dipped into the gelatine, and after that into the plaster, which, while drying rapidly, retains the form after the contents have melted. It is said that, in point of taste, the eggs cannot be distinguished from the real article ; while they will keep good for years, and are not so easily broken. They can be flavored to resemble ducks' eggs ; but up to the present it is stated that even the most assiduous hen had failed to produce chicks from these compounds."

This story was originally published as a hoax in the *Detroit Free Press*, and prepared also as a satire on the purity of American farm products. The English are always too much in earnest to suspect a joke.—E. S. G.

THE HOSPITAL Saturday and Sunday collections, in this city, for 1883 amounted to \$42,803.69. In 1882 they amounted to \$30,681.52.

The churches, in 1883, gave.....	\$27,040.50
Trade associations " " .....	6,691.97
Trade collections " " .....	1,412.75
Exchanges " " .....	3,022.95
Benevolent orders " " .....	495.50
Miscellaneous " " .....	4,140.02
Total .....	\$42,803.69

Of this amount (\$42,803.69), \$27,000 have been given to the Hospitals. The expenses have been about \$3,000, and about \$12,800 have been invested for permanent beds. A noble work, nobly done.

Of the \$27,000 given by the churches, the Episcopal churches gave about \$13,000, nearly one-half; St. Bartholomew's gave \$2,533, a noble offering. Money could not possibly be better bestowed.

SCHOLARSHIPS AND THE VIRGINIA LEGISLATURE.—The Virginia Legislature proposes to pass a bill giving annually to one of the medical colleges of the State a certain sum of money (\$7,500), and to have, as a return, 136 medical students given a course of lectures—one student for each legislator !

It is difficult to believe that such a proposition could receive even respectful consideration, and that it was not received with shouts of laughter ; but it is to be duly considered.

Next, the same amount should be voted to a law college ; then to a theological college ; to one of engineering and mining ; to a shoemaking establishment ; and to a tailor's shop. It is marvelous, indeed, that any respectable legislative body could so cover itself with ridicule, absurdity and folly.

HOW TO DISCONTINUE A JOURNAL.—The following from an exchange fully and freely expresses right views on this subject: " You have undoubted right to stop a paper when you feel disposed, *upon the payment of all arrearages*. Do not hesitate to do so on account of tenderness for the editor. When you discontinue a paper, do so manfully ; don't throw it back to the postmaster and say : ' I don't

want it any longer!' and have 'refused' written on the margin, and have the paper returned to the editor. No gentleman ever stopped his paper in that way, no matter if his head is covered with gray hairs that should be honorable. If you do not longer wish to receive a paper, write a note to the editor, like a man, saying so; and be sure that arrearages are all paid. This advice is according to law and equity." This is published as a guide to the reader when he wishes to discontinue other journals; of course no one ever discontinues this JOURNAL.

THE "MEDICAL NEWS," QUININE PILLS, AND THE HIGHER WALKS OF JOURNALISM.—GAILLARD'S MEDICAL JOURNAL for September administers a well-deserved rebuke to the *Medical News* (published in this city), for its discourteous language towards its contemporaries, and its unwarranted aspersion of their motives, in a recent editorial contained in that periodical, and shows that the charges of weakness, cowardice, and venality have been thus far proven only against the management of the *Medical News* itself. We say with Hamlet:

" Let it work ;  
For 'tis the sport, to have the engineer  
Hoist with his own petard."

—*Philadelphia Medical Times.*

SUCCESS OF THE OLD CODE NEW YORK DOCTORS.—The second meeting of the new County Medical Society was held in the lecture-room of the College of Physicians and Surgeons, February 18th. Dr. William Detmold, the President, made a few congratulatory remarks, and Dr. Gouley reported that the membership of the new society was steadily increasing. He said it was expected that the old code doctors would organize in each county in the State. A paper on typhoid fever was read by Dr. Edward G. Janeway, and discussed at some length by Dr. Austin Flint and others. One of the speakers declared that nearly all of the cases of typhoid fever in this city last year were found in the parts of the city near the rivers. It was seldom, he said, that sickness from typhoid fever occurred within the territory lying between Lexington and Sixth avenues.

THE PROPHYLAXIS OF PARTURITION.—If the views of Dr. T. G. Thomas on this subject are correct, that she who is about to bring forth must be treated as one about to go through a capital operation, and that carpets, curtains, etc., are to be removed, and every person and thing sprinkled with boric or carbolic acid, including (after birth) even the vagina, it is safe to say that there will be fewer births in New York than ever. However sincere he may be and is, however learned, however experienced and judicious, he is an enthusiast on this subject, and, for once, will fail utterly to carry with him, in conviction and practice, the wise, conservative and independent physicians of this country.

NOT HIGHTONED.—If there is any one thing in connection with medical journalism more reprehensible, or more derogatory to the dignity of the calling, or more unjust to subscribers, than any other, except personalities, it is the practice much indulged in of late by many of the otherwise unexceptional

exchanges which come to our desk, of sandwiching in between the items of news, editorials, and clippings, of fulsome, often disgusting notices of arrant quack preparations, patent medicines, proprietary articles, and notices of what Prof. Nobody has said of *Potatorina*, or *Blisterine*, or *Iodid*, or Dr. Starter's Pills.—*Texas Courier-Record*.

HUMOR.—Dr. S. Baruch, in a recent paper on the subject of prophylaxis in normal labor, says: "Dr. Garrigues, like all originators of an instrument or appliance, attributes his success, in puerperal practice, in a great measure to his antiseptic pad. He claims that the latter obviates the necessity for preventive injections, which 'become superfluous, and thus one great source of infection is avoided.' I would not say ought in opposition to any measure or appliance which will keep the dangerous nurse and syringe away from the genital canal, and if for no other reason than this most vital one I would advocate the adoption of Dr. Garrigues' antiseptic pad as a most useful and promising advance in prophylaxis. It keeps the nurse and syringe away!"

THE Red Star Line Atlantic Steamship Co., plying between New York and Antwerp and Philadelphia and Antwerp, have ordered their surgeons to mess at "the second-class table," and they are treated as "second-class passengers." It is easy to say, as some journals do, "they must resign." They will, of course, do so as soon as they can secure bread-and-butter elsewhere, but, in the meanwhile, they eat the bread of humiliation. Physicians, in the aggregate, send hundreds of patients to Europe by this line. It is well for them to remember it and send their patients by other vessels.

THE largest circulation of any medical journal is claimed by the *British Medical Journal*, with something over 12,000; the *New York Medical Record* claims the same, with a circulation somewhat over 10,000; the *Therapeutic Gazette* has the same claim, with a circulation of over 12,000, and so on. The *Medical Brief*, of St. Louis, has, as is said by its editor, 25,000. Whether that journal is to be regarded as a medical journal or not, is the question. The journals indicated above evidently consider that the *Brief* is not a medical publication. If it is, their claim is without foundation.

THE SIMS MEMORIAL FUND.—The Kings County (N. Y.) Medical Society adopted a resolution at its February meeting, appointing a committee, consisting of Drs. Alex. J. C. Skene, Samuel G. Armor, and Paul H. Kretzschmar, to collect from members for the Sims Memorial Fund. The circular contains the original appeal of the General Committee, and encloses a suitable blank for the name of the subscriber. This is an excellent idea, and other county societies would do well to imitate this laudable example. There is no doubt that the Kings County Society will show a proper record.

DOCTORS' AND LAWYERS' FEES.—The Government has paid for one unsuccessful trial of the "Star route thieves" \$144,146.92; of this Mr. Bliss, of New York, received for his portion of the unsuccessful work \$57,732.15, an average



of \$150 a day for fees, and \$10 a day for expenses. And yet the small charge of Mr. Garfield's doctors was scaled far below \$100 a day, *including expenses*, provided they would sign a receipt in full. The people and the press applauded. Even the medical press, in part, and medical men, thought it all right thus to defraud and degrade the medical profession. A record of shame.

DR. JOHN FOCHE FAUNTLEROY, of Leesburg, Va., died February 4th, 1884; an accomplished physician; an independent and true man; a faithful friend. It is but a few weeks since that the editor of this JOURNAL received from him, in one of his frequent letters, an account of his case; the writer of the letter giving, even then, a fatal prognosis. Alas! how soon have his previsions been realized and his opinions verified. Virginia loses an able and good physician, one whose family and friends have the warmest sympathy in their affliction. Dr. Fauntleroy had been a subscriber to this JOURNAL since January, 1866.

NEW YORK CITY'S HEALTH DEPARTMENT, coroners and institutions of "charities and correction" cost about three and a half million dollars per year—say three dollars apiece for each of its inhabitants, and when it is remembered that a large proportion of its million and a quarter inhabitants are idlers, paupers, cripples, and criminals who are unproductive, and lean upon the industrious portion of the community, one may fairly estimate that the workers each pay about ten dollars a year for the support of the drones and incapables.

THE TEXAS STATE MEDICAL ASSOCIATION.—It is respectfully asked that a complete report of the proceedings of this association (which meets at Belton, April 22d) will be sent to this JOURNAL for publication. Members reading papers will please send their manuscripts to this JOURNAL, in which such papers, will be published without delay. This arrangement does not debar a member from the privilege of having his paper published in the "Transactions." Custom has sanctioned this privilege, and societies no longer object to it.

HARVARD ALL RIGHT.—Many have been afraid that Harvard was degenerating, but, from a notice in the *New York Times* of February 21, it is evident that its alumni are fully as able as the alumni of any other institution. The *Times* says that the Harvard Club will eat its eighteenth annual dinner at Delmonico's "tomorrow evening." It has already eaten seventeen annual dinners. And yet there are some who say that alumni meetings are useless. The amount of good they do to mankind is really beyond estimate!

THE "TEXAS COURIER-RECORD OF MEDICINE."—It is a genuine pleasure to see this excellent journal doing so well. May it ever be so, and may the editors, Drs. F. E. Daniel and W. B. Brooks, so well fitted for their work, reap an abundant and prompt success.

The senior editor, Dr. F. E. Daniel, has the sincerest sympathy of his many friends in the recent loss of his wife, and among all no one sympathizes with him more sincerely than does the writer of these few lines.

THE JOURNAL COVER.—Several kind friends have written in regard to the JOURNAL cover, complaining that it is received torn and injured. New and

heavier cover paper has been made for the JOURNAL, and the wrappers in future will be longer and heavier. This will prevent any further injury.

The color was chosen by an old friend, who was very kind to the writer in his illness, and it is preserved as a memento.

DRS. BLUTHARDT AND KROST, of Chicago, Ill., were so badly frightened while making an autopsy, by a noisy mob, that one ran away and escaped, while the other tried to run away but was caught and beaten. These would have been valuable regimental officers! If county officers are afraid to do their legal duty they ought to be displaced. These left their instruments behind and lost them. Ought not the profession to subscribe and give them another set?

THE *Atlanta Medical Register* (Ga.), recently published by Mr. H. H. Dickson, and edited by Dr. J. P. Logan, has been sold to James P. Harrison & Co., and will be published hereafter by them as the *Atlanta Medical and Surgical Journal*, its old name. It will be edited by Drs. W. F. Westmoreland, H. V. M. Miller, and James A. Gray. It is hoped that this old journal will do well.

THE Patent Medicine Almanacs for this year imitate many of the American and Canadian medical journals, by *interleaving their text pages with advertisements*. Or it may be that these medical journals are imitating the device of the patent medicine men for making a few more pennies. Who are the pioneers in this laudable business?

ST. LOUIS, MISSOURI, MEDICAL COLLEGE.—On page 228<sup>o</sup> of the February number, it was stated that this college was “in a bad way.” The item was taken from a newspaper, and is incorrect. The error is, of course, regretted, and is promptly corrected. The institution alluded to by the newspaper is evidently the St. Louis College of Physicians and Surgeons.

THE SEX OF MEDICAL SOCIETIES (composed of men) is, it seems, female in character. The *Journal of the American Medical Association* discourses as follows: “Was the New York State Medical Society ‘extruded from membership’ in the American Medical Association, or did she take herself out by her own act?” She was very naughty.

NOTICE.—The whole of the historical debate on Puerperal Fever, in the New York Academy of Medicine, with the original papers of Drs. T. Gaillard Thomas and Fordyce Barker, will appear in the May number, giving to that number a value which all will appreciate.—E. S. G.

“THE PREMATURE BROUGHAM” is the suggestive expression by which a correspondent of an English journal refers to a common burden which weighs down the young practitioner.

PHYSIOGNOMISTS.—Pickpockets and beggars are the best practical physiognomists, without having read of Lavater, who it is notorious mistook (says Lacon) a philosopher for a highwayman.

HOW IS DEATH POSSIBLE.—An Etonian says: “If we cannot die as long as we live, and cannot die when we are dead, how is death possible?”

PER OS.—The *Medical Age* furnishes, in a late number, several formulas for giving mercury “*per os*.” This is something new. How is it done?

# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

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Scientia et Veritas Sine Timore.

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VOL. XXXVII.

NEW YORK, MAY, 1884.

No. 5.

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## ORIGINAL ARTICLES.

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ARTICLE I.—MECHANICAL PRINCIPLE IN THE CIRCULATION IN THE EMBRYO: PLACENTAL SOUFFLE THE ANALOGUE OF RESPIRATION. RESPIRATION IN THE NEW-BORN: THE CHANGE IN MECHANICS WHICH THIS INVOLVES. INCUBATION: THE RELATION THIS SUSTAINS TO THE AIR-CHAMBER IN THE EGG. MODE OF GRAFTING THE OVUM IN THE TISSUES OF THE WOMB.\* By W. H. TRIPLETT, M.D., Washington, D. C.

We have seen that respiration and circulation must be treated together, since they form a *connected movement* for pumping the commerce in and through the organism for elaborating structure and evolving force, and that the whole is founded in the power of producing rhythmical changes in pressure, the fluids flowing from high to low pressure in conformity with organic law; that the lungs, intestines and bloodvessels are necessarily allied in respiration in order to make importation and transportation a connected movement between the cell-brood and environment, which the scheme calls for. In other words, that the *pumping action* in respiration *compels* the commerce in the vessels, while the action in the heart, arteries and venous system circulates it through the organism, the action being unified throughout by means of the nervous combinations in the medulla oblongata, in which the respiratory, vaso-motor and voluntary motor centres, are correlated, the one calling for the other, as has been fully set forth in the preceding pages, and that the vital phenomena, anatomical and physiological, appertaining to respiration, circulation absorption, etc., are readily explained and accounted for, giving absolute proof of the correctness of the premises, as before remarked. We now follow this matter a little further, and take up

### CIRCULATION IN THE EMBRYO,

a subject which, it must be admitted, is at present veiled in deep obscurity. This is nevertheless susceptible of explanation. The embryo is an *aquatic*

\* From a manuscript work being prepared for publication, entitled "Natural Philosophy of the Body; or, the Mechanics in Respiration, Circulation Absorption, Etc.," chapters xvi. and xvii.

animal, since it leads a subaquatic existence, being placed under water (Fig. 1) and deeply buried in the maternal tissues, which would account for the peculiarities that obtain in its circulation approximating it to the stages in development represented in fishes and amphibia.

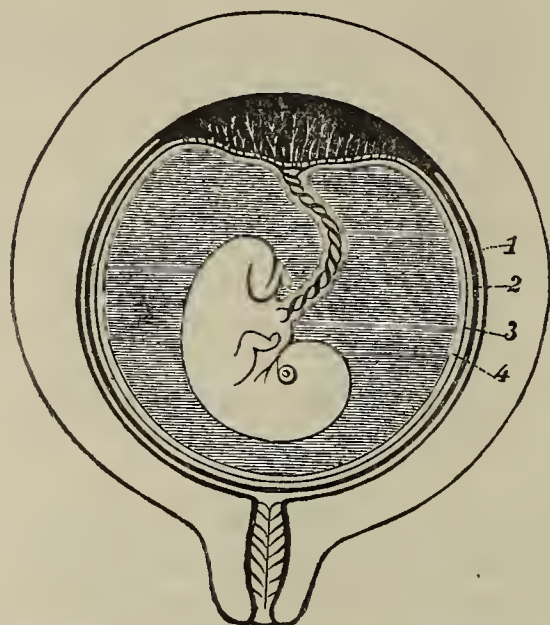


FIG. 1.—GRAVID HUMAN UTERUS AND CONTENTS, showing the relations of the cord, placenta, membranes, etc., about the end of the seventh month. 1, decidua vera; 2, decidua reflexa; 3, chorion; 4, amnion. (After Dalton.)

The physical conditions under which the embryo is evolved determine the special vascular arrangements for effecting circulation, while the transformations which accompany this provide for the radical physical changes which are ushered in at the end of the term, when it becomes an air-breather, the fundamental circumstance underlying it all being *an adjustment with pressure, and the power of effecting rapid rhythmical changes in pressure*, or of producing the universal pumping actions going on in the body. For example, we have seen that the rhythmical expansions and contractions pervading the body in the air-breather, and known as *respiration*, compel oxygen and aliment in the circulatory apparatus for evolving force and producing growth; so, in like manner, a similar necessity exists in the embryo for compelling the nutritive and force-producing elements in its circulation for producing growth and evolving force, which is principally expended in elaborating its structures. But since the embryo feeds in the uterine sinuses from which the commerce is obtained, and into which the waste products are returned, this calls for the differentiation of the special organ known as the placenta, and which answers to the more highly differentiated lungs and intestinal canal which are to substitute it at the end of the intra-uterine term as the relative adjustments with the larger environment, lower pressure, and higher order and amount of work which this involves.\* The placental souffle, then, which is distinctly heard through the maternal structures is the analogue of respiration in the air-breather, the relative ratio of the movements to the pulsations in the foetal heart

\* For further particulars, see Part II. of this work, "On the Relation of Gravitation to Development," to be issued shortly.

being also the same, or as 1 to 4 of the latter, whilst the villi are the analogues of the villi is the intestinal canal, the one being submerged in the sinuses, the other in the juices in the intestine. Since the pumping action in respiration is absolutely essential for compelling the commerce in the vessels, it follows that this circumstance should be represented in the embryo, as the maternal blood does not enter the embryo, the latter feeding out of the sinuses simply by means of the villi in the placenta and this pumping action spoken of; for here, as elsewhere in the body, there are no means for increasing circulation but by *rhythmical changes in pressure*. The result must then be the action in the placenta simulating respiration. The relative frequency of this movement to the action taking place in the foetal heart is as 1 to 4, or the same as in respiration.

Thus, in the case of the placental souffle it is 30 to 35, and in the foetal heart the pulsations are from 120 to 140 per minute; while, in the case of the air-breather, the pumping action in the trunk or respiration is from 16 to 20, and in the heart from 60 to 80 per minute. Again, this action in the placenta serves not only to pump the fluids in and out of the sinuses, but at the same time it also aspirates the venous blood in the embryo for effecting oxygenation in it the same as obtains in the lungs: the heart and vessels assisting in the one as well as in the other, since it all forms a connected movement. We now see that by reason of the great increase in pressure that obtains in the embryo, the action in the organs for changing pressure is materially assisted, since the fluids flow more readily in consequence. And here comes in the benefit of the amniotic fluid, which not only increases pressure in proportion, but at the same time it serves to transmit the force in the placenta and uterine walls to the embryo for compelling corresponding changes in pressure upon the blood in connection with the special functions.

As illustrating this fact, we see that when the placenta expands for aspirating the fluids in the uterine sinuses, the organ advances into the uterine cavity, it swells out and occupies more room, and, by thus encroaching upon the embryonic area, it produces corresponding increase in pressure upon the liquor amnii and embryo, with low pressure in itself, which fulfils the conditions for increasing circulation from the embryo to the placenta, at the same time, that it should aspirate the fluid in the uterine sinuses. It could not do otherwise in the very nature of things. During contraction in the placenta, the opposite conditions should obtain, since this would determine high pressure in the latter with low pressure in the embryo, the blood in consequence flowing through the umbilical vein with augmented speed, and for the reason that contraction should reduce the volume of the placenta, which would inevitably reduce pressure in the embryo in proportion, the blood flowing from one into the other in conformity with organic law. To this, again, must be added the action in the heart for aspirating the blood in the placenta. The media in which the animal lives obviates the necessity for the extensive arrangements for reducing pressure in the chest, which obtain in the lighter media of the atmosphere, the heart, together with the force in the placenta and umbilical vein, being sufficient for the purpose.

A subaquatic existence calls for but slight reduction in pressure in order to compel movement; accordingly, we have the blood rushing in and out of the heart as a result of the rhythmical expansions and contractions in this organ; while for increasing this action, the vessels are combined in the mechanics by means of the vaso-motor apparatus, and which, undoubtedly, connects with the action in the placenta. The right ventricle is *thicker* and *stronger than the left*, as adjustment for this mechanics, since the diastoles should aspirate the blood in the two cavæ, while the two systoles would produce high pressure in the arterial system for increasing circulation in the capillaries.

By means of this combined action in the placenta, heart and vessels, a rapid circulation is readily effected under the high pressure that obtains in intra-uterine life; but anything which should interfere with this mechanics by reducing pressure, *e.g.*, escape of the amniotic fluid, would promptly destroy life. How, otherwise, account for this circumstance, since the vascular connections are *uninjured*? Moreover, the lividity of the skin, which occurs in these cases, proves conclusively the existence of venous stasis in the systemic capillaries, and insufficiency of the heart's action to carry on circulation in the absence of the normal pressure upon the embryo. The same circumstance occurs to the air-breather when carried to too great an altitude, notwithstanding the extensive arrangements for changing pressure in the chest, which exist in the latter. This circumstance may be especially noticed in balloonists, and also in persons ascending mountain ranges, respiration and circulation becoming more and more embarrassed as the journey is proceeded with, and venous stasis more and more conspicuous, till the limit of endurance is reached or life itself is terminated, as occurred in the celebrated case at Paris, in which the voyage was made by two balloonists, one losing his life, the other being unconscious when the balloon descended.

#### THE ACTION IN MEDUSÆ CONTRASTED WITH THE ACTION IN THE PLACENTA.

The action in *medusæ* feeding in the juices in the sea, pumping them in and out of the internal compartments by means of rhythmical expansions and contractions for changing pressure upon them, may be taken to illustrate the mechanical action in the placenta, which feeds in the juices of the womb, pumping them in and out itself from the maternal sinuses. Thus the peduncles (Fig. 2, *a, a*) answer to the tufts while the mantle represents the body of the placenta. But to make the analogy complete, a tubing should project from the convex surface of the latter to represent the umbilical vein and arteries, and which, for obvious reasons, are not present. The analogy is more striking, however, than would appear on the surface, since from the periphery of the stomach a system of radiating canals extends to the edge of the mantle, dividing, subdividing and anastomosing to form a continuous and complicated capillary plexus around the free margin of the mantle, inclusive of the colored lobes, to form the respiratory apparatus. This may be taken to represent the circulation on the distal side of the placenta, and though, for obvious reasons, the force is increased in the embryo, still the mechanical principle is the same for both circulations.

In the mantle, as well as in the placenta, unstriped muscles are present for increasing the energy of the rhythmical expansions and contractions. But muscles are not essential to this action, a notable example of which is furnished in the heart itself, which expands and contracts regularly and rhythmically before a muscle or nerve is developed in the protoplasmic and undifferentiated walls (p. 499), also in capillaries and in early animal forms.

It is interesting to note the fact in this connection (which has already been commented upon in the higher stages of development), that *every movement* of the animal, by extending or retracting the mantle and the branched peduncles, must *necessarily* increase circulation and respiration in correspondence. It could not be otherwise. Numerous stomata in the rounded extremities of the peduncles (*a, a, a*) afford free ingress and egress to the fluids in the central canals (*b, c*).

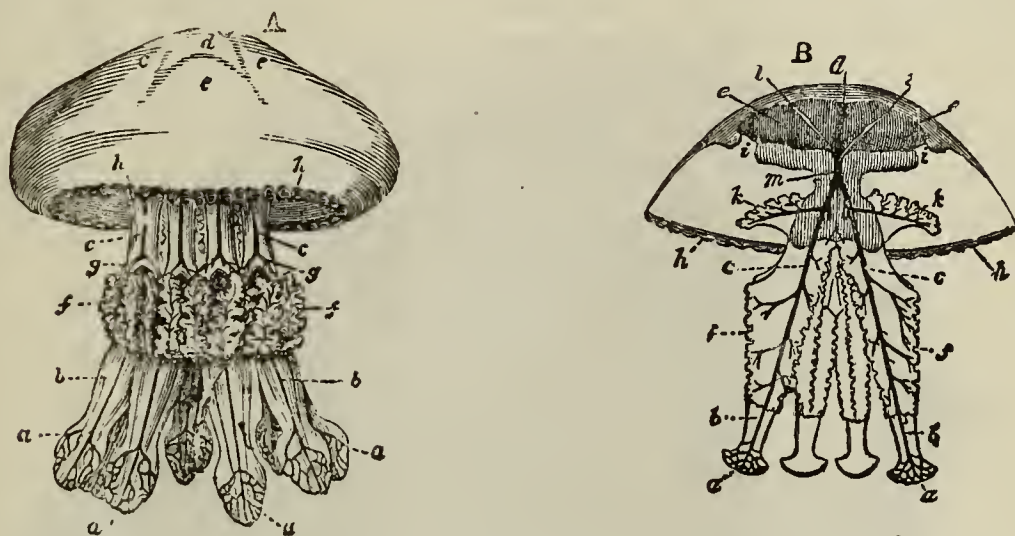


FIG. 2.—MEDUSA (*Rhizostoma cuvieri*). *A, a, a*, eight peduncles; *b, c*, internal canals leading up to the stomach; *d*, stomach; *e, e, e, e*, surmounting ovarial sacs (four); *f, k*, lateral respiratory canals; *h, h*, respiratory lobes on free margin of mantle (colored); *l, l*, thin membranous partitions separating the cavity of stomach from the ovarial sacs; *i, i*, external opening to ovarial sacs; *m*, œsophageal passage. (After Grant.)

The capillary loops at the sides of the peduncles (*f, k*), which function as absorbent and respiratory vessels, may be taken as the simile of the capillary loops in the tufts of the placenta.

This brief description will serve to explain the mechanical principle in the placenta, and it now remains to be seen how this action is assisted by the action taking place in the womb itself; or how the maternal and foetal circulations are made to connect for effecting mutual interchange, the former supplying the nutritive and force-producing elements for the growth and elaboration of tissue, the latter yielding up the waste products to be borne back through the maternal channels to the environment from which everything is derived, and into which, in due time, everything is returned in the form of waste products and final dissolution.

## MODE OF CONNECTING THE MATERNAL WITH THE FŒTAL CIRCULATION.

The circulation of maternal blood in the uterine and placental sinuses is the same in principle as that for circulating air in the lungs, namely, by rhythmical changes in pressure in the sinuses, which is produced by the action taking place in the womb itself; taking the placental sinuses to represent the alveoli, and the uterine the tracheal system, the blood flowing in and out of this system of canals by reflux action for renewal, just as the pulmonic air flows in and out of the tracheal system for renewal, only that in the former the fluid passes into the venous system of the mother and is returned by the arterial, both terminating by capillary openings in the canals, while the placental soufflé answers to the respiratory murmur.

We have already spoken of the *role* which the placenta plays in this respect, and it now remains to take up the very important one which the uterus itself

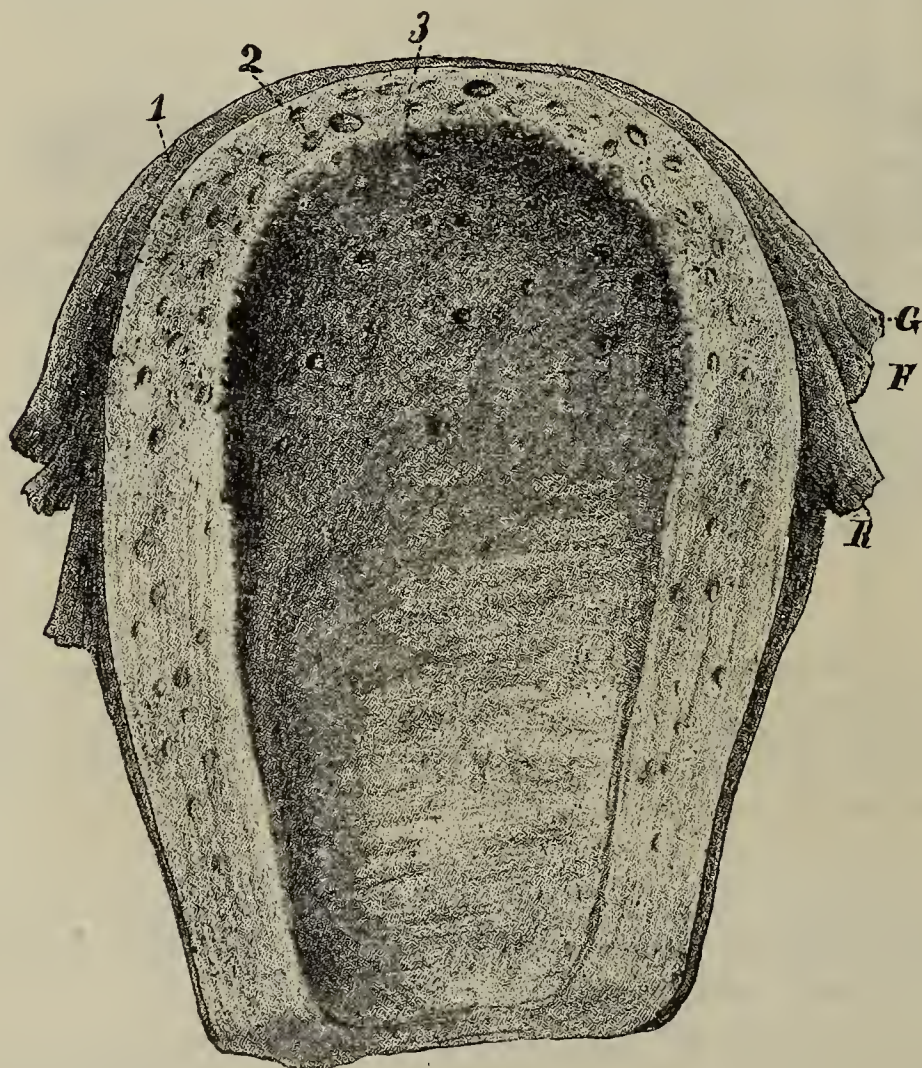


FIG. 3.—LONGITUDINAL SECTION OF A LATELY GRAVID WOMB, showing the canal system. Taken from a case of post partem hæmorrhage (partly diagrammatic). 1, peritonæum; 2, uterine canals (sinuses); 3, openings to canals on the mucous surface corresponding with openings to placental sinuses; *g*, Fallopian tube; *f*, ligament to artery; *r*, round ligament.

performs for completing this deeply-interesting mechanics, which it would be difficult to overestimate, underlying, as it does, embryonic life.

First, with regard to the uterine sinuses, we may mention that this canal



system which is channeled in the walls of the gravid womb does not consist of veins or arteries enlarged for the purpose, but, on the contrary, that the proper substances of the womb itself (muscles and connective tissue) compose the actual walls, which are lined by a delicate membrane answering to the lining membrane of the vessels. The difference is very material, since the vessels are enabled to expand and contract themselves for increasing circulation, while in the case of the sinuses, the walls of the womb would have to expand and contract in order to insure circulation in them, and that this is the case will appear more obvious as we proceed, the mechanics undoubtedly calling for such a condition.

When a longitudinal section is made of a gravid womb at full term, this canal system is seen to traverse its substance in various directions from near the central portions, but trending to the internal or mucous surface where they connect with the placenta (Fig. 3—2, 3). They never penetrate to the external surface to form continuous tubes with the arteries or veins; but on the contrary, both these systems of vessels connect with this system of canals by means of *capillaries*, the arterial emptying and the venous discharging from these common mains. Hence this blood is mixed as a matter of necessity.

The next important point is the method this system of canals exhibits in connecting with the placental sinuses, which is done by *projecting the lining membrane into the substance of the placenta* (Fig. 4, c, c, c, c). This spreads out at once

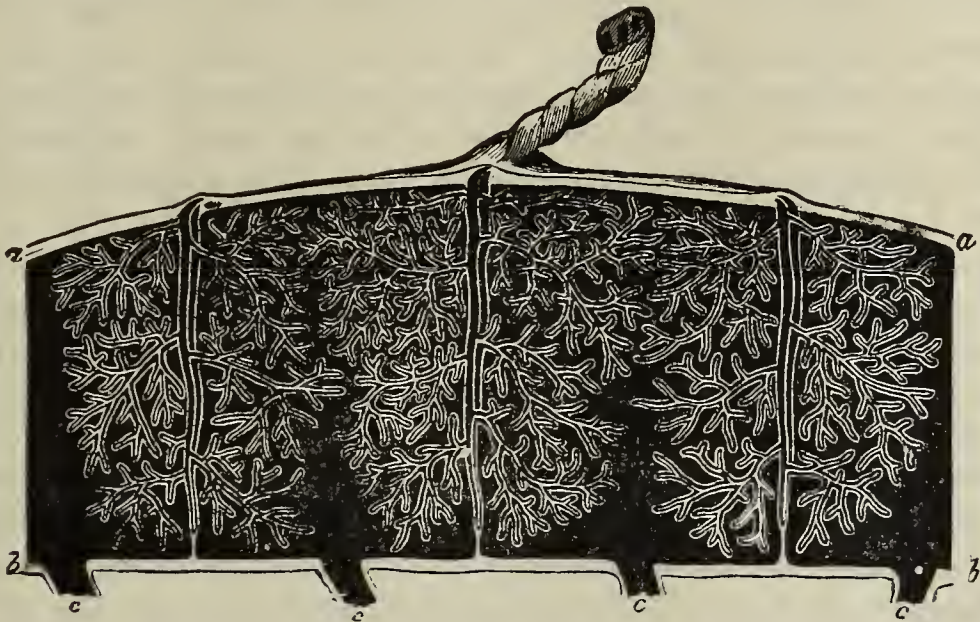


FIG. 4.—VERTICAL SECTION OF PLACENTA, showing arrangement of maternal and foetal vessels. A, a, chorion; b, b, decidua; c, c, c, c, orifices of uterine sinuses. (After Dalton.)

to form the large cavitory spaces in which the highly ramified placental tufts are suspended and submerged in blood.

The walls of these large cavities in which the lining membrane of the uterine sinuses is merged answers to the outer surface of these highly-ramified tufts which fit into this as the fingers in a glove, the vascular loops being contained inside of them (Fig. 5, a, a). It is easy to perceive that this outside wall and the wall of the capillary itself *intervene* between the maternal and foetal blood, and that interchange would have to be effected through these ~~two~~

membranes ; hence, to be very active it would call for considerable force for producing this.



FIG. 5.—EXTREMITY OF FETAL TUFT, from human placenta at term, in its recent condition. A, a, capillary bloodvessels. Magnified 135 diameters. (After Dalton.)

During attachment, when the sinuses are filled with the maternal blood they are greatly larger than after detachment, when the blood is forced out, and the tufts are compressed against each other in the maternal passages, reducing the placenta fully one-half its size. At the time of birth, the necks of the uterine sinuses, where they join the placenta, are readily torn through (Fig. 4, c, c, c, c), and, peeling off easily with the decidua, the organ is expelled, unless, forsooth, abnormal nutritive changes in the parts have made the union more intimate.

The problem in the mechanics concerns the manner by which the blood is speeded in and out these sinuses commensurate with the increasing wants of the growing embryo, and how this in turn is connected with the arterial and venous systems of the mother for compelling correspondence in them, the whole forming a connected movement—a movement within a movement, so to speak.

We have seen that *change of pressure is the law of the animal circulation*, and it now remains to make rigid application of this principle in mechanics to the special phenomena, anatomical and physiological, appertaining to this interesting region, in order to make them also intelligible, which otherwise are utterly inexplicable.

It follows, that for increasing circulation in the placenta we must provide for rhythmical changes in pressure, since no other force applies for producing it, and we must connect the action in the womb (which expands and contracts regularly and rhythmically) with the action in the placenta, so that when the latter expands for producing low pressure, the former contracts for producing the opposite, and *vice versa*.

In this manner an active circulation in and out the placental sinuses could be readily produced.

The following facts may be given in support of this opinion :

1. The womb must expand and contract regularly and rhythmically in order to

increase circulation in the sinuses, since this is essential for changing pressure upon the blood, while the vast number of muscles and nerves in the walls of the womb are the provision for more energetic action than is possible to the placenta, which is composed almost entirely of vascular loops.

2. The womb *surrounds* the embryo, and its action would therefore be more effective for producing the changes in pressure upon it, which is also *in imitation of what takes place in the amnion* of the growing chick, it being rocked to and fro in the egg by the slow rhythmical expansions and contractions taking place in the amnion (p. 499), and by alternating this action with the one taking place in the placenta, it is readily perceived how a rapid circulation could be maintained in the maternal and placental sinuses for compelling correspondence between this and the energetic circulation in the embryo, since it all forms a connected whole. This would also be in conformity with the principle in the circulation, the blood flowing from high to low pressure. As the placenta *expands* for reducing pressure within itself, and for increasing pressure in the embryo, *simultaneously* and *pari passu* with this action the entire muscular walls of the womb *contract* for increasing pressure in the maternal sinuses for compelling this blood in the placenta, at the same time by increasing pressure upon the embryo it should determine a more rapid movement from the latter to the placenta; the one involving the other. But when the placenta contracts for increasing pressure (thereby compelling the blood out of itself in two directions, or toward the embryo and the maternal sinuses), the uterine walls *expand* for reducing pressure in the embryo and the uterine sinuses, thus greatly expediting the placental efflux; and, taking it all in all, there can be very little doubt but that the force which is represented in the muffled murmur of the placental souffle is mainly the product of the muscular uterine walls, though both undoubtedly contribute to it.

3. This action in the uterus and placenta would account for the very curious and suggestive *obliquity* in that portion of the canals connecting the uterine with the placental sinuses, being upon a line *almost parallel* with the transverse axis of the uterus and placenta, which is precisely what is called for by the special mechanics, in order to effect the lateral or to-and-fro movements, the vessels simply elongating and contracting with these, as the case may be, without interfering with the calibre of the tubes. Were the vessels straight, it would be utterly impossible to operate this mechanics, since the lateral movements should obliterate the vessels by closing the calibre. It could not be otherwise, in the very nature of things. In the accompanying diagrams (Figs. 3, 4), the vessels are represented as nearly perpendicular, but this is done simply for better definition.

4. But the strongest proof, perhaps, of this higher function of the womb is furnished in the vascular and nervous connections subsisting between it and the maternal organism. And as all this relates to circulation for building up and elaborating the embryo, obviously the mechanics for increasing circulation in the womb commensurate with that in the embryo should extend to the vessels of supply or the feeders, as also the discharging vessels, or the arteries and veins. It must be shown how this new movement, this new life set going

within the other, twines its arms around the maternal vessels and feeds itself in the measure of its necessities, by means of this pumping action in the womb and placenta which represents respiration. The spermatic and uterine arteries are the feeders (Fig. 6, *s*, *u*), while the accompanying veins are the discharging

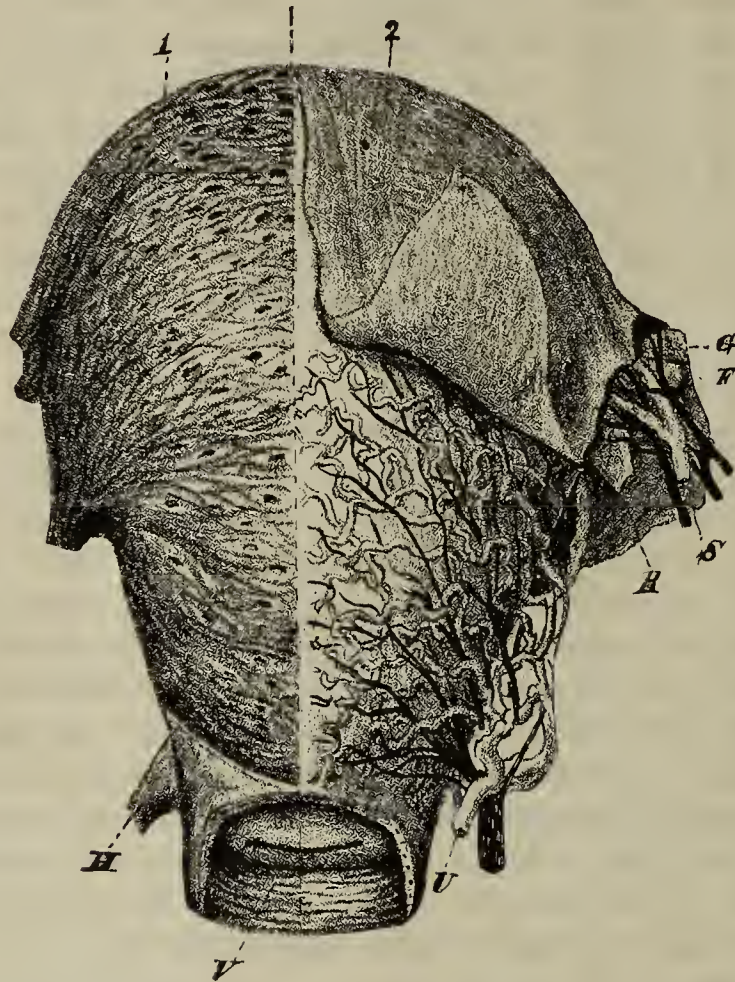


FIG. 6.—Showing the ARTERIES AND VEINS TO THE WOMB. *s*, spermatic artery and veins (ovarian); *u*, uterine artery and vein; 1, vessels passing between the muscular fibres; 2, peritonæum; *g*, Fallopian tube; *f*, ligament of ovary; *r*, round ligament; *h*, inferior ligament or duplicature of peritonæum corresponding with Douglas's cul de sac; *v*, vagina.

vessels. To this must be added the uterine lymphatics, which are very large in the impregnated womb. They terminate in the pelvic and lumbar glands. The spermatic arteries and veins have similar origin and termination, as in the male, while the uterine artery is a branch of the internal iliac, with the venous return through a vein of the same name. The deeply suggestive fact to note in this connection is that the dense plexuses of nerves to the fundus and sides of the womb converge in the nervous ganglia about these vascular trunks, or the spermatic and hypogastric ganglia (Fig. 7, *e*, *w*, *r*). It will be seen that the nerves to the fundus (*v*, *x*) converge in, or radiate from, the spermatic ganglion (*w*), which surrounds the spermatic artery and vein (*e*) (which corresponds with the attachment of the placenta), while those in the neck and sides from the hypogastric ganglion (*r*) are brought in direct relation with this ganglion by means of intercommunicating nerves (*t*) for unifying the action throughout.

Thus, nervous force to the womb is literally banked upon the bloodvessels,

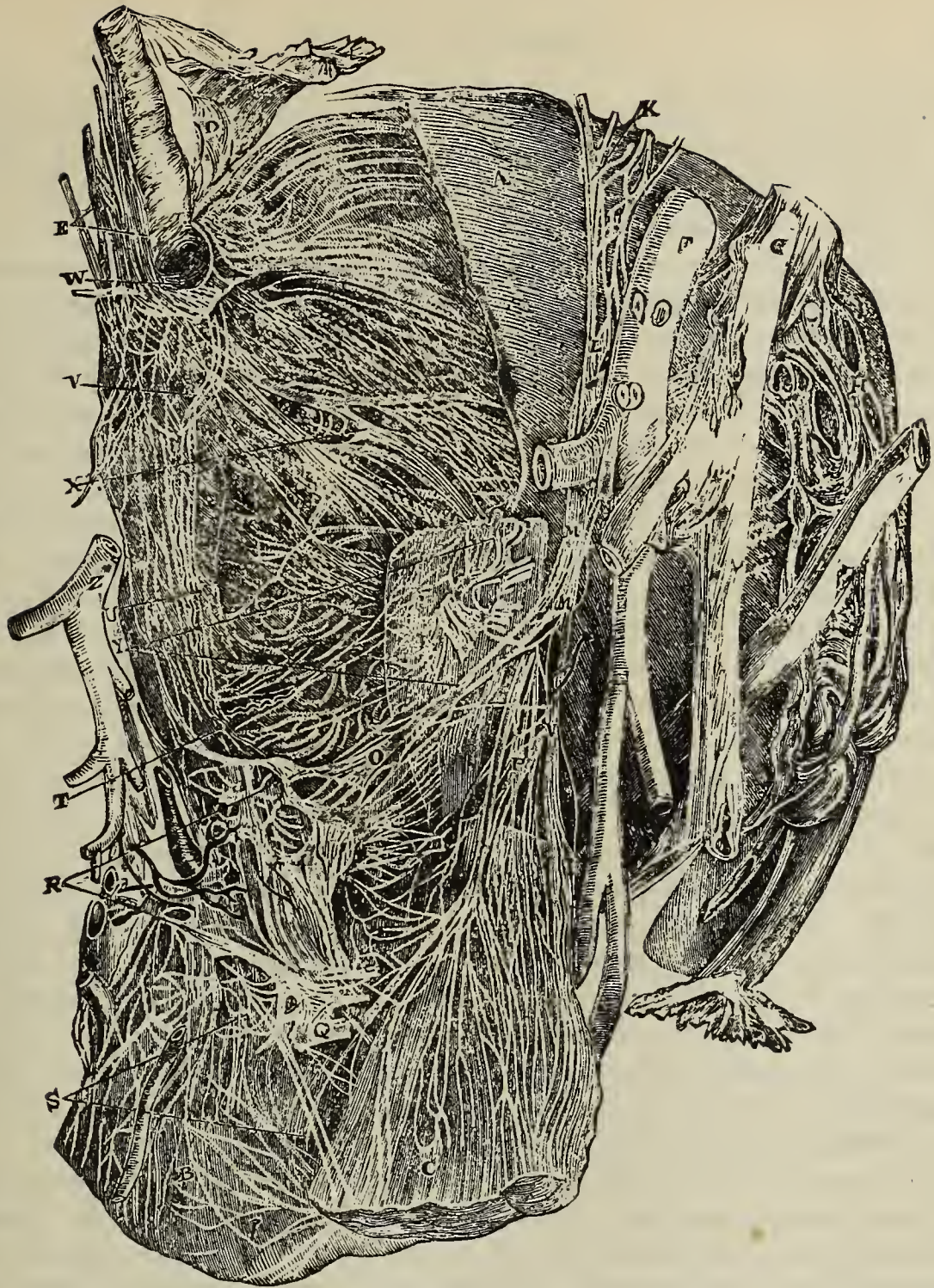


FIG. 7.—GANGLIA AND NERVES OF THE GRAVID UTERUS AT THE END OF THE NINTH MONTH  
*A*, the fundus and body of the uterus, having the peritonæum dissected off from left side; *b*, the vagina covered with nerves proceeding from the inferior border of the left hypogastric ganglion; *c*, rectum; *d*, left ovarium and Fallopian tube; *e*, trunk of left spermatic vein and artery surrounded by the left spermatic ganglion; *f*, aorta divided above the origin of the right spermatic artery; *g*, vena cava; *h*, trunk of right spermatic vein; *i*, right ureter; *k*, the two cords of the great sympathetic passing down along the front of aorta; *l*, trunk of inferior mesenteric artery with the nervous plexus connecting with the right and left cords of the sympathetic; *m*, the two cords of the great sympathetic at the point of bifurcation into the right and left hypogastric nerves; *n*, right hypogastric nerve with its artery injected, proceeding to neck of uterus to terminate in the right hypogastric ganglion; *o*, left hypogastric nerve as it enters the left hypogastric ganglia, and giving off branches to the left sub-peritoneal ganglia; *p*, hæmorrhoidal nerves and artery; *q*, sacral nerves entering the whole outer surface of the hypogastric ganglion; *r*, left hypogastric ganglion with the arteries injected; *s*, nerves of the vagina; *t*, nerves with an injected artery proceeding from the upper part of left hypogastric ganglion along the body of the uterus, and terminating in the left spermatic ganglion; *u*, continuation of these nerves and the branches which they give off to the sub-peritoneal plexuses; *v*, some nerves passing upward beneath the sub-peritoneal plexuses; and anastomosing freely with them; *w*, left spermatic ganglion, in which the nerves and artery from the hypogastric ganglion, and the branches of the left sub-peritoneal plexuses terminate, and from which the nerves of the fundus uteri are supplied; *x*, left sub-peritoneal plexuses covering the body of the uterus; *y*, left sub-peritoneal ganglion, with numerous branches of nerves extending between it and left hypogastric nerve and ganglia; *z*, left common iliac artery cut across and turned aside to expose left hypogastric nerve and ganglion. (After Dr. R. Lee.)

and if this means anything it means that circulation *shall* be in correspondence with the physiological requirements, or supply equal to demand, the cardinal circumstance being the *growth and elaboration of the embryo*, which is the object and purpose of the organ, the others being simply incidental.

It comes to this, namely, that the nervous force for expanding and contracting the uterine sinuses should expand and contract the uterine bloodvessels *at one and the same time*, thereby causing afflux and efflux of blood through them for compelling correspondence throughout which the scheme calls for. Furthermore, this would accord with the action in the vessels in respiration, as indicated by the *undulations* in arterial tension. But would not this mechanics interfere with the due circulation of blood in the *placental sinuses*? Certainly not, and for the following reasons: 1. Efflux of blood through the veins is by means of capillary vessels, which tend to retard escape, while the flow of blood in and out the placental sinuses takes place through large canals (Fig. 5, c, c, c, c). But in addition to this, the *expansion* in the placenta, which occurs during systole of the womb, should also determine the blood in this direction.

2. During diastole in the womb and its sinuses, for aspirating the placental sinuses, the *high pressure* in the arterial system causes this blood to flow into the uterine sinuses as rapidly as the blood coming from the placenta; at the same time, the valves in the veins of the uterus obviate reflux from *the venous system*. When the womb contracts for compelling the blood in the placenta and venous system, the pressure in the arterial inhibits reflux in this direction. Thus the mechanics for increasing circulation in the uterine and placental sinuses is complete in every respect, nor does it require extensive expansion and contraction in the womb in order to effect increased circulation through the sinuses, but a moderate and limited amount, sufficient only for producing *rhythmical changes in pressure upon the blood*, as must appear obvious: something similar to what takes place in the spongiæ, which have muscles (Norway) for producing a more rapid circulation in and out this canal system.

*This expansion of the womb and arterial feeders* would explain the sudden and enormous escape of arterial blood in post partem hæmorrhage, for the placenta being no longer attached, the flow of blood through the uterine sinuses must necessarily be purely arterial. In other words, when contraction ceases and the movement of expansion sets in, the flood-gates are thrown open to the arterial system.

In reference to the nervous centre for this pumping action in the womb, which answers to respiration in the foetus. There can be very little doubt but that the spinal-cord functions as the common reflex centre of nervous force for producing the rhythmical expansions and contractions in the gravid womb simulating respiration. The following are the reasons for this allegation: 1. The very intimate connection subsisting between the womb and spinal cord by means of the hypogastric ganglia and sacral plexus with the intercommunicating nerves. 2. The fact that the lumbar portion of the spinal cord undergoes enlargement during gestation (Mathews Duncan). 3. The fact that reflex action in the womb is readily produced by applications to the skin surface, a circumstance well known and practised by the profession. All these facts fall readily

into line when viewed from this standpoint, and, no scientific reason existing to the contrary, we may conclude the fact as logically proven. Indeed, the gist of the question is not whether there is a reflex centre in the spinal cord for the womb, but whether this centre produces the rhythmical expansions and contractions in that organ as alleged. A full and sufficient answer to this is furnished in the fact of the total absorption of the relative phenomena, anatomical and physiological, which otherwise are utterly inexplicable, underneath all which is the organic law on which animal life itself is constructed, calling for rhythmical changes in pressure in the contents of the gravid womb and in the uterine sinuses for increasing circulation. Nor is it reasonable that the enormous number of muscles and nerves in the womb are for compelling out the contents at the end of the term simply, but, on the contrary, that they perform an active and essential part in the work of construction which precedes expulsion. Beyond a shadow of a doubt, they are not idle in all this while, especially when supreme necessity would have it otherwise; on the contrary, they are *evolved as force is needed* for carrying on circulation, while at the end of the term they are available for assisting in expelling the embryo, hence perform an active *role* from the beginning to the end of their existence, as is ever the case with the muscles and nerves.

One other circumstance in this connection, namely, the very *tortuous* course of the arteries in the womb (Fig. 6), which undoubtedly is adjustment with this action, permitting the rhythmical expansions and contractions to take place without involving any strain to the vessels. The veins, it will be perceived, take a straight course, while the arteries are serpentine or bent upon themselves. This is due to the fact that the veins are more extensile, and possess greater powers of elongating and shortening than the arteries, the yellow elastic coat of the latter tending to limit their actions. It will be remembered that this circumstance has forcible illustration in the splenic artery and vein, the former being almost twice the length of the latter, to allow for expansion in the stomach when food is taken, otherwise this would involve prodigious strain to the vessels, with great reduction of the calibre. But the same remark will apply to the vessels of all the hollow viscera. Thus everything is in correspondence. Of course, the arc of movement in the womb and placenta is necessarily more limited than in the lungs, in which considerable space is required for sucking in the air simultaneously with the venous blood, but which would not apply for the foetal circulation, as the oxygen is furnished by arterial blood at *one and the same time* with the nutritive and force-producing elements, which the scheme calls for in order to generate force, since it is by a combination of the two that force is evolved. The inclusion of the intestines with respiration by means of the pneumogastric nerves has its explanation in this circumstance, as has been fully set forth in the preceding pages. Differentiation in the organs cannot, for obvious reasons, work any change in the fundamental principle underlying the mechanics for increasing circulation, which is by rhythmical changes in pressure involving a pumping action for compelling the commerce in the bloodvessels and expelling waste products, while the *speed* of the currents thus produced is determined by the rapidity and energy of the rhythmical ex-

pansions and contractions pervading the organs, inclusive of the heart and vessels, since it all forms a connected movement for increasing circulation between the cell brood and environment, from which everything is obtained and into which the waste products are returned, the two going on simultaneously.

With the expiration of the intra-uterine term, expansion of the maternal passages sets in for reducing resistance to the egress of the embryo, and the womb and abdomen contracting simultaneously for increasing pressure in the womb, the contents are compelled out in the environment. Here, as elsewhere, *the law of pressure applies for compelling movement in the contents of the hollow viscera for which special adjustments obtain in the organs and organism*, the underlying principle being *rhythmical changes in pressure*.

The atmosphere being invisible, it is difficult to realize the important relations this sustains to the mechanics, nevertheless, the fact is incontrovertible, that from centre to circumference, and from surface to surface of the body it is corner-stone and foundation to *all the mechanics concerned in circulation*.

It is passing strange the matter should have escaped attention so long, especially in this age, when *thought* is reaching down into the organic basis of life. Indeed, one needs to go there if he would unravel the tangled skein in animal structure and function, since the definite arrangements that obtain in the organs with every stage in development show unmistakably a common relation to fundamental forces in nature underlying it all, notably *pressure and gravitation*. The animal body is not *outside* and *independent* of the organic laws, but, on the contrary, is in entire conformity with them, while the arrangements which obtain in the structures represent the relative adjustments for special work.

#### RESPIRATION IN THE NEW-BORN: THE CHANGE IN MECHANICS WHICH THIS INVOLVES.

The first thing in the new-born is to start respiration for compelling in the commerce in the environment in place of the uterine sinuses, and the action in the placenta for which this is the substitute, the oxygen passing in by way of the lungs and the aliment through the intestinal canals. But this requires fresh adjustments in the mechanics of circulation to bring it in correspondence with this circumstance, notably, circulation of the blood in the lungs, and the attaching of the intestinal apparatus to this movement by means of the nerves connecting in the medulla oblongata, a matter which has already been fully considered in the preceding pages. The first thing, therefore, is to start respiration, when it will be in order to consider how the mechanics in circulation swings into this pendulum movement for compelling correspondence throughout, with the blood ever flowing from high to low pressure in conformity with the organic law underlying the organism itself. One end of the nervous system, so to speak, is *spread out* in the skin surface, the other through the organism, while the medulla oblongata functions as the common centre to it all; any impression, therefore, made upon the skin surface is promptly reflected to the medulla oblongata, thence over all the structures for producing the reflex actions connected with respiration and circulation. The irritations attendant upon parturition from friction against



the maternal structures are calculated to produce these reflex actions ; but the contact of the sentient surface with the stimulus in the atmosphere itself would also excite it. And if the child should be injured by the rude experiences incidental to parturition, a yet more powerful means for exciting the reflex actions connected with respiration is furnished by the sudden application of cold to the surface, as in sprinkling cold water upon it, \* or a sudden, sharp slap with the open hand may be substituted instead, as is commonly practised. Last, but not least, carbonic acid, as it accumulates in the blood, acts as a special stimulus to respiration. It cries out in pain, and, presto! the hæmal mechanics is changed. The low pressure which is produced in the alveoli by expansion of the lungs during inspiration compels *simultaneous* afflux of air and blood in the alveoli ; while the high pressure which is produced by the subsequent contraction during expiration causes *simultaneous* efflux in these fluids, which flow from high to low pressure in conformity with organic law—the one flowing out by reflux action through the route of ingress, the other passing into the left chambers of the heart and arterial system on its way to the cell-brood, as has already been described in the air-breather. This abandonment of the old route for the new is readily explained, since it is in strict accordance with physical law, being in the direction of least resistance.

For example, we *begin* the mechanics with high pressure in the arterial system, since this extends through the ductus arteriosus to the semilunar valves of the pulmonary artery, the floor of support to the arterial column. Hence, when the alveoli expand during inspiration for sucking in air through the trachea, the high pressure in the pulmonary artery and ductus arteriosus compels this blood to flow straight on to the low-pressure areas in the alveoli *simultaneously* with the afflux of air, or in the direction of least resistance, in place of forcing its way in the arterial system against high pressure, which would be contrary to law. And the ductus arteriosus, though still filled with blood, as in the case of an artery, beyond the ligature to where a collateral branch is given off, shrinks and contracts till it becomes a solid, impervious cord.

For closing the foramen ovale the following mechanics apply: After birth the inpour of blood in the left auricle by way of the pulmonary veins is as rapid as it is in the right auricle through the venæ cavæ, and pressure is at equilibrium in the two auricles, which at once suspends all tendency in the blood to pass from one side into the other during auricular diastole ; whilst during the auricular systole and the high pressure this produces in the auricles causes this blood to flow into the expanding ventricles, where low pressure invites it, the same applying for either auricle. But gravitation also should compel it in this direction, since the ventricles are *under* the auricles. Thus a dual force applies (suction and gravitation) for compelling this blood in the ventricles during the auricular systole, and the foramen ovale, being thus abandoned, is closed and obliterated by membranous formation.

But in intra-uterine life the matter is different ; here the whole blood is

\* The intimate connection subsisting between the respiratory centre and the skin surface is of easy demonstration in the adult by the same means. For example, every impact of cold water against the skin produces spasmodic inspiration or expansion in the lungs ; not deep, however, but very energetic.

poured into the right auricle, that from the upper cava passing at once in the right ventricle, while that in the lower cava (which includes the blood from the umbilical vein) passes through the right into the left auricle, with which it directly communicates, guided by the Eustachian valve, but also pushed over and deflected in this direction by the weight of the descending current from the upper cava ; but if the head be downward then by its own weight the blood would gravitate in this direction, the influx of blood from the upper cava also compelling it. And with the absence of blood as a *counter-force* in the left auricle this blood is necessarily compelled in the latter, thence in the left ventricle and aorta, while that in the right ventricle passes in the arterial system at the aortic arch by way of the pulmonary artery and ductus arteriosus. After birth, however, the pumping action in the lungs reverses all this in manner as above described. The pulmonary artery in the embryo, in place of discharging through the lungs, left auricle and ventricle, empties its blood at once into the aorta as it passes under the arch, and which is also in the direction of least resistance, since it is impossible for this blood to thread its way through the capillary meshes of the *unexpanded* alveoli. This circumstance has forcible illustration, even in the air-breather, and when the alveoli are filled with residual air, by simply inhibiting inspiration by closing the mouth and nose so as to prevent expansion in the lungs, the blood, in consequence, rapidly accumulating in the right side of the heart and venous system. In the space of a minute there is lividity of the lips and whole cutaneous surface from venous stasis in the systemic capillaries. If longer than this, an appalling venous suffusion pervades the surface ; in the face most, for this is the most vascular portion, with the large venous trunks in close proximity to the heart. Even the eyes are forced outward, becoming prominent from distension of the intra-orbital veins caused by obstruction in the cavernous and lateral sinuses. But the instant the obstruction is removed and the lungs are permitted to expand the dammed-up blood surges through the alveoli, and all runs on as before. In other words, the heart and vessels are unable to carry on circulation in the absence of the pumping action in the lungs, for which *afflux* and *efflux* of air is essential. But all this has been sufficiently explained.

#### INCUBATION. CIRCULATION IN THE EGG.

Why should there be an air-chamber to the egg (Figs. 8 and 9)? We are now prepared to furnish a scientific explanation to this physiological problem, otherwise inexplicable, viz., the contents of the egg for developing the chick is enclosed by a firm unyielding wall of living marble, and since the animal circulation is dependent upon rapid rhythmical changes in pressure, it follows that provision should be made *within* the shell for effecting this, otherwise the action in the heart and vessels could not take place. This air-chamber (*g*), together with the important relations it sustains to circulation and elaboration in the growing chick, organologically, therefore, must be regarded as one of the most essential and important elements in egg-structure, the underlying principle to all the nutritive changes which are ushered in under the action of external temper-

ature. The accompanying illustration (Fig. 9) will serve to impress the matter.

The discipline in the nutritive processes requires the blood to be brought from the vitellus and aërated in the allantois, thence to be dispatched through the body territories. Accordingly two great venous trunks (omphalo-meseraic veins), one in each fold of the splanchnopleure, embracing the vitellus, are the

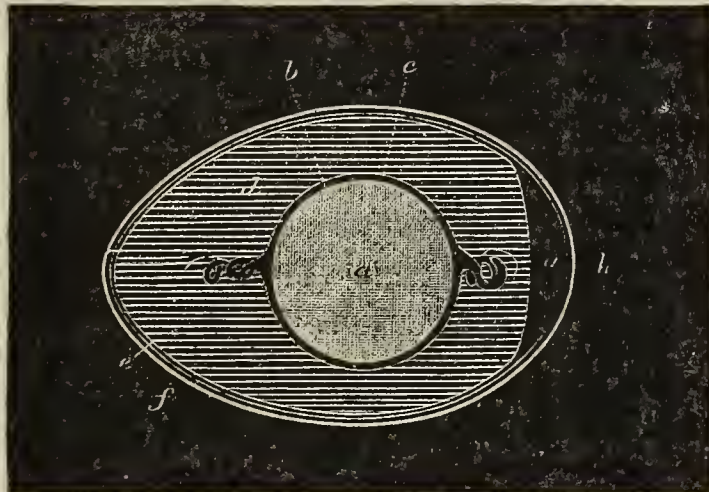


FIG. 8.—DIAGRAM OF FOWL'S EGG. *A*, yolk; *b* vitelline membrane; *c*, chalaziferous membrane; *d*, albumen; *e*, *f*, middle and internal shell membranes; *g*, air chamber; *h*, calcareous shell. (After Dalton.)

first evolved, while at the terminal ends or confluence the heart is formed by the blending of the walls of these venous trunks.

According to His, the heart is developed by the coalescence of a layer of the splanchnopleure with a similar layer from the somatopleure, the hollow cavity formed by the union being in free communication with the adjacent omphalo-



FIG. 9.—EGG OF FOWL IN PROCESS OF DEVELOPMENT, showing area vasculosa, with vitelline circulation, terminal sinus, etc.

meseraic veins. According to Foster and Balfour "the upper end of the heart is developed out of the mesoblast of the splanchnopleure," but "increases in length step by step at the expense of the continually coalescing omphalo-

meseraic veins." Thus the fact is undeniable, that the heart is developed in the *venous system in connection with the vitellus*. The rhythmical expansions and contractions in this organ (the *punctum saliens* of early authors) serve to pump the vitelline fluids in the bulbus arteriosus and the two aortæ which are developing at the other end of the heart. But for this air-cushion within the egg (Figs. 8 and 9, *g*), neither these rhythmical expansions in the heart nor the changes in pressure for compelling circulation in the vitelline fluids could take place, since the unyielding shell would inhibit these actions, as must appear obvious.

Respiration is provided for in the following manner: The allantois (a diverticulum of the intestinal canal) is pushed out around the amnion which contains the embryo, and expanding its vast capillary net-work of vessels (whose footstalks spring from the two iliac arteries, as do the umbilical arteries in the mammalian embryo) against the shell-membrane or chorion becomes the respiratory organ of the chick, by means of which the venous blood is constantly arterialized, the oxygen passing in and the carbonic acid passing out through the pores in the shell by the action of the polar forces. But "at the time the heart first begins to beat, the capillary system of the vascular and pellucid areas is not yet completed, and the fluid which is at first driven by the heart contains, according to most observers, very few corpuscles. . . . The course of the blood then, during the latter half of the second day, may be described as follows: The blood brought by the omphalo-meseraic veins falls into the twisted cavity of the heart, and is driven thence through the bulbus arteriosus and aortic arches into the aortic trunk. From the aorta by far the greater part of the blood flows into the omphalo-meseraic arteries, only a small amount passing on into the caudal terminations. From the capillary net-work of the vascular and pellucid area into which the omphalo-meseraic arteries discharge their contents, part of the blood is gathered up at once into the lateral or direct trunks of the omphalo-meseraic veins. Part, however, goes into the middle region of each lateral half of the sinus terminalis, and there divides on each side into two streams. One stream, and that the larger one, flows in a forward direction until it reaches the point opposite the head, thence it returns by the veins spoken of above, straight to the omphalo-meseraic trunks. The other stream flows backward, and becomes lost at the point opposite the tail."\*

The following from the same authors is deeply suggestive: "Soon after its formation the heart begins to beat, at first slow and rare pulsations, *beginning at the venous and passing on to the arterial end*. It is of some interest to note that its functional activity commences long *before* the cells of which it is composed *show any distinct differentiation into muscular or nervous elements*." It would be difficult to overestimate this circumstance, since it establishes beyond peradventure the power in the higher as in lower animals to effect rhythmical expansions and contractions in the soft tissues in the absence of any muscle or nerve for producing them. But at present the significance of these rhythmical expansions and contractions taking place in the heart concerns us most, since the manifest purpose is to increase circulation; and as this can only be done by

\* Foster and Balfour's "Embryology."

pumping the blood of the omphalo-meseraic veins, it follows that both expansion and contraction is necessary for accomplishing this, the one for aspirating this fluid, the other for propelling it. This would explain why the action should *begin at this end of the heart*. Of course, as the area of circulation increases it would call for corresponding increase of force for effecting it. Accordingly, *pressure is increased* for facilitating circulation at the same time that additional force is placed upon it; notably, the former is produced by the amniotic fluid and the latter by the action in the amnion.

The amnion closes around the embryo of the chick on the fourth day, and on the fifth fluid begins to collect in the sac, and by the seventh the embryo is submerged in a considerable quantity of water. "By the seventh day very obvious movements begin to appear in the amnion itself; slow vermicular contractions creep rhythmically over it. The amnion, in fact, begins to pulsate slowly and rhythmically, and by its pulsations the embryo is rocked to and fro in the egg. This pulsation is due, probably, to the contraction of involuntary muscular fibres, which seem to be present in the attenuated portion of the mesoblast, forming part of the amniotic fold" (Foster and Balfour).

The physiological significance of this accumulation of amniotic fluid, and the rhythmical contractions and expansions in the amnion, may not be doubted for a single moment, since the former would increase pressure, while the latter should produce the necessary changes in pressure in the embryo for compelling respiration and circulation to be in correspondence with the nutritive and functional processes in the growing chick, both of which are constantly extending their limits and requiring more and more force for effecting them. These slow pulsations in the amnion of the chick answer to the placental and uterine souffle in gestation, the principle being precisely the same. How otherwise explain this circumstance? But, as has already been remarked, *all pulsations relate to changes in pressure*, and these pulsations in the amnion, together with the amniotic fluid, relate to changes in pressure in the embryo for increasing circulation of the juices.

The explanation of the mechanics is sufficiently easy; notably, there are two cardinal points from which to regard it—one in the allantois, the other in the embryo. First, commencing with the movement of expansion in the allantois. The increase in pressure which this produces in the embryo through the amniotic fluid should cause the venous blood to flow with increased energy towards the allantois, the point of low pressure within the egg (the heart and vascular system, of course, assisting in this); the contraction or condensation of the amnion, by relieving pressure in the allantois, enables this to expand *pari passu* with contraction in the amnion for aspirating the venous blood, at the same time that it aspirates the air through the outer membrane and pores of the shell. When the movement is reversed by expansion of the amnion, the reduction in pressure which this effects in the embryo, together with the simultaneous increase of pressure it produces in the allantois by forcibly compressing this against the shell wall, causes the aerated blood in the latter to flow with augmented speed into the heart of the embryo, as also through the tissues of the

latter; since the blood vascular system would be less embarrassed and be more free to act in consequence.

But the allantois itself also participates in this action, the fluid it contains enabling it to effect such rhythmical compression of the capillary plexuses

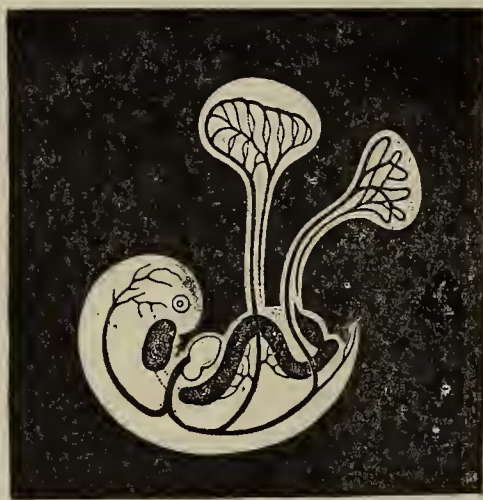


FIG. 10.—DIAGRAM OF YOUNG EMBRYO AND ITS VESSELS, showing circulation of umbilical vesicles, and also that of allantois, beginning to be formed. (After Dalton.)

(Fig. 10). The following forcible illustration (Fig. 11) by the distinguished biologist at Jena will serve to impress the matter. At this early stage in development (third week in gestation), it will be seen that pressure is increased at the cardinal points, namely, vitellus (*a*), the body of the embryo (*c*), and allantois



FIG. 11.—HUMAN EMBRYO IN THE THIRD WEEK. *A*, large globular yolk-sack; *b*, allantois; *c*, amnion; *d*, tufted chorion. There are yet limbs. (After Haeckel.)

(*b*). As the embryo and allantois are elaborated out of the material in the vitellus, this would explain the greater accumulation of fluid in this locality for compelling circulation toward those two points, whilst the rhythmical contractions of the yolk sac should greatly expedite it. For increasing circulation

between the embryo and allantois (*c, b*), commensurate pressure is produced by accumulation of fluid in these two points or poles of the circulation. This, together with the action in the membranes themselves, and the heart and vessels, is sufficient for carrying on circulation in the initial stages of embryonic evolution; but with the increase of growth comes increasing difficulty for effecting it; hence the pumping action which is set up in the placenta and womb, together with the accumulation of amniotic fluid for transmitting these actions upon the embryo, as described above. Thus, everything is in correspondence—the liquor amnii, the increasing growth of the placenta and the number of muscles and nerves in the walls of the womb—and so continues till the close of pregnancy. In other words, it all forms a connected whole in the mechanics of the embryonic circulation.

In the case of the bird, the allantois answers to the placenta, since it pumps in both oxygen and nutriment; only that the pumping action in the abdomen (the soft hinder parts of the bird) for pumping air and blood through the alveoli, is set up in the latter days of incubation, when rapid atrophic changes soon obliterate the umbilical vessels, and, breaking the now attenuated and fragile shell-wall with its beak, it finally makes its escape, leaving the allantois and atrophied membranes behind.

#### MODE OF GRAFTING THE OVUM IN THE TISSUES OF THE WOMB.

In *mammalia* the ovum is not discharged from the maternal passages, but is retained in the expanded oviducts at the point of juncture, which answers to

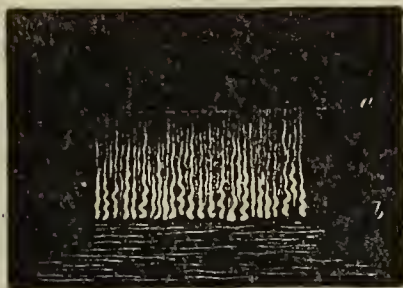


FIG. 12.—A VERTICAL SECTION FROM THE UTERINE MUCOUS MEMBRANE, showing the numbers and position of the tubules. *A*, free surface; *b*, attached surface. (After Dalton.)



FIG. 13.—Same tubules, greatly magnified. (After Dalton.)

the womb, where growth and elaboration are effected through the vascular connections established between it and the maternal circulation. Briefly, the mode of closing this is as follows: The uterine mucous membrane is virtually but a dense mass of single, straight follicles, arranged perpendicularly to the free surface (Figs. 12, 13), and with the closed end resting against the muscular

walls of the womb. At intervals, fine bloodvessels course up between them, and, reaching the mucous surface, surround the tubules with a capillary network. But when fecundation is effected vascular turgescence at once sets in, producing rapid growth and development of the membrane—of the follicles especially; and, coming in contact with this highly vascular and tumified surface as it leaves the Fallopian tube, the ovum is rapidly incorporated with it, by means of the shaggy villosities which are thrown out from the outer surface (Fig. 14, *a.*),

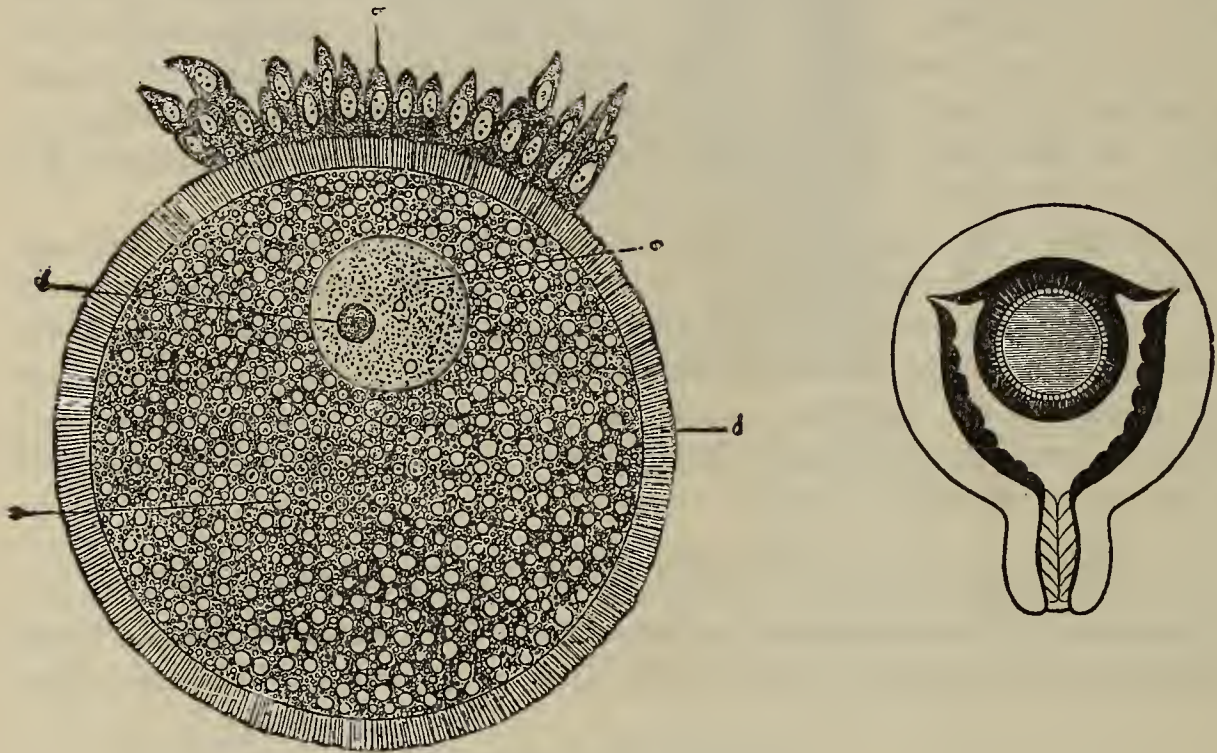


FIG. 14.—OVUM OF THE RABBIT, from a Graafian follicle  $\frac{1}{50}$  of an inch in diameter. *A*, epithelium of the ovum; *b*, zona pellucida, with radiating striations (vitelline membrane); *c*, germinal vesicle; *d*, germinal spot; *e*, vitellus. (After Waldeyer.)

FIG. 15.—IMPREGNATED UTERUS, showing connection between villosities of chorion and decidual membranes. (After Dalton.)

which grow into the expanded orifices of the tubules, and function as temporary villi for pumping the abundant albuminous secretions of the glands in the interior of the ovum. Of course, they contain all the elements of tissue structure. With the ingrowing of the shaggy tufts of the chorion in the follicles, the mucous membrane expands around the ovum for bringing the follicles in contact with every portion of the chorion till the whole is completely enclosed, forming what is known as *decidua reflexa*, while that portion of the membrane with which it first came in contact, in immediate relation with the muscular walls, constitutes *decidua vera*, the part that enters the structure of the placenta which is subsequently formed. At this time the villosities of the chorion project into the uterine follicles in every direction (Fig. 15), but as growth proceeds, and more and more nutriment is needed in the embryo, the villi in relation with *decidua vera* become vascular, while those in relation with *decidua reflexa* are atrophied, in consequence of which this portion of the chorion becomes bald. Finally, the transformations which occur in the placenta



convert the tubules into placental sinuses, and the villi of the chorion into vascular loops, surrounded and embraced by the lining membrane of the sinuses, like the fingers of a glove (Fig. 16), as before remarked; but since the capillary loops are projected in the villi, the natural inference is that the walls of the latter coalesce with the walls of the sinuses to form this intervening membrane. In this manner the embryonic and maternal structures are inseparably blended.

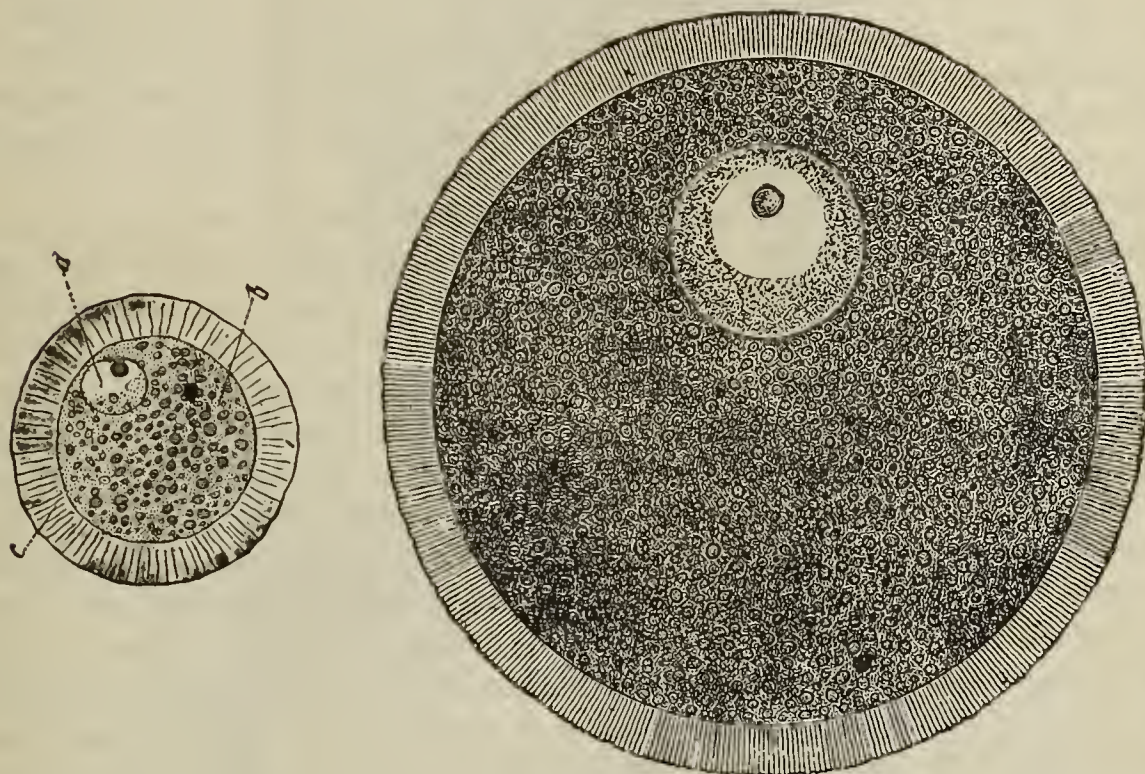


FIG. 16.—OVUM FROM THE MOLE. *A*, nucleus; *b*, cell body; *c*, thickened corpuscle traversed by pores. (After Leydig.)

FIG. 17.—THE HUMAN EGG FROM THE OVARY OF THE FEMALE: MUCH ENLARGED. The entire egg is a simple, globular cell. The greater part of the spherical egg-cell is formed by the egg-yolk, or the granular cell-substance (protoplasm), which is composed of innumerable delicate yolk granules, with a little intervening substance. The germ-vesicle, answering to the cell-kernel (nucleus) lies in the upper part of the yolk. It contains a dark nucleolus or germ-spot. The globular mass of yolk is surrounded by a thick transparent egg-membrane (*zona pellucida* or *chorion*). This is penetrated by the pore-canal, in the form of very numerous hair-like lines, which run rapidly towards the centre of the globe; through these the thread-shaped, moving sperm cells pass, in the process of impregnation, into the egg-yolk.

The common relation which animal life sustains to the organic laws has forcible illustration in the very ova, the structure being fundamentally the same (Figs. 16 and 17). The absence of a shell wall permits expansion in the chorion *pari passu* with the growth of the embryo, while the womb expands in concert with this action in the chorion and embryo.

## ARTICLE II.—APPLIANCES FOR THE TREATMENT OF FRACTURE OF THE FEMUR.

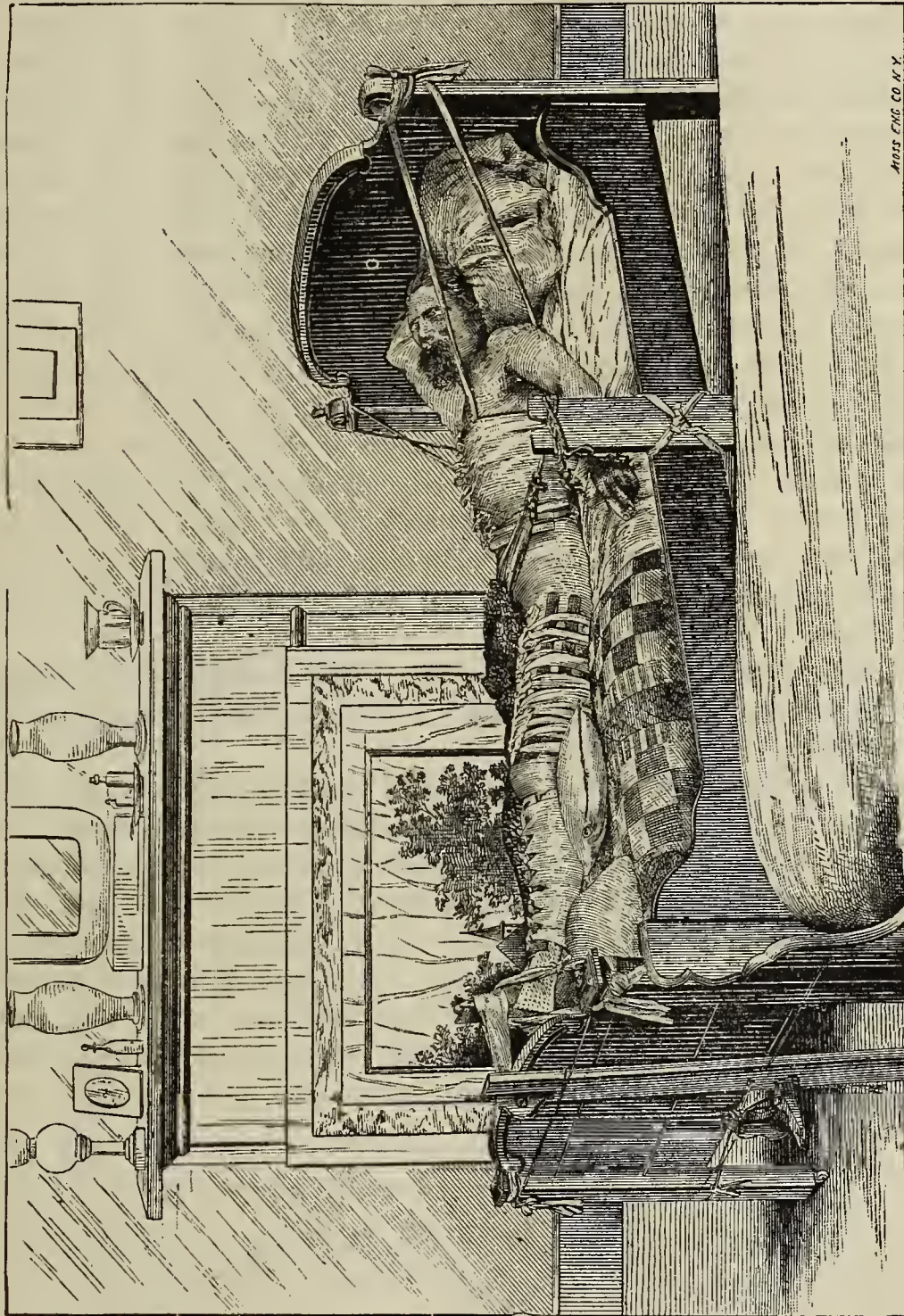
By JNO. BROWNRIGG, M.D., Columbus, Miss.

In the "Transactions of the Mississippi State Medical Association for 1881," I reported the use of a cloth jacket for counter-extension in this fracture. Since then I have treated three cases. One, a lady of forty-eight years of age who had ununited fracture of the femur of ten weeks' standing; another, a man thirty years of age, and the third, a little girl of two years of age. I used, in these cases, a band around the pelvis, secured to an upright piece of plank at the side of the bed to keep the body and fractured limb aligned, instead of a long side splint. I will describe these appliances in detail at the risk of repetition, which may be excused on account of the importance of arriving at a proper mode of treating this fracture without any shortening.

Two thicknesses of unbleached drillings or other strong cotton cloth of good quality, wide enough to reach from just below the axilla to a point an inch and a-half below the lower margin of the ribs should be passed around the body and brought together in front so as nearly to meet. To make the jacket fit the form, a pleat should be made on each side, gradually diminishing in width from below upward, as far as necessary. A strap of such material as a tourniquet strap, or such as boot-straps are made of, with a strong buckle on one end, should be sewed by a row of stitching on both edges to the outside of the jacket, near its lower margin, so as to admit of buckling the strap tightly around the body below the margin of the ribs. Above this strap, an inch and a half from both edges of jacket in front, should be sewed strong tapes about an inch apart, opposite each other, so that the jacket may be laced tightly to fit the form from its bottom to its top. When it is convenient to do so, eyelets may be secured to holes in the edges of the jacket and a cord used to lace it instead of the tapes. Four straps, made of the same cloth as the jacket, should be sewed to the upper edge of the jacket, two in front and two behind, about half-way between the neck and shoulders. These straps should be about a yard and a half long, or long enough to admit of being tied to the head of the bedstead, wide enough apart to admit of free movements of the head and high enough to slightly lift the shoulders. When the patient is a woman, crucial incisions should be made in the jacket over the breasts to prevent pressure. Counter-extension should be made with straps of porous rubber or moleskin adhesive plaster, secured to the leg by a many-tailed bandage tied together over a piece of pasteboard or thin tarboard in front of the leg. Buck's thin block should be placed in the loop of the strap of adhesive plaster and the ordinary cord, roller and weight applied. The upright piece of plank at the foot of the bed, to the top of which the roller is secured, should be eight inches wide and tall enough to lift the heel a few inches above the bed. An upright piece of plank, a foot and a half taller than the bed, with two auger holes near its top, should be secured to the side of the bed opposite the pelvis. A broad band of cotton cloth should be passed around the pelvis and its ends secured to the top of this piece of plank, through the holes in it, and tightened so as to keep the body aligned with the fractured limb. Two splints made of strong tarboard, lined

with cotton wadding and cotton cloth, next to the skin, should be fitted to the thigh so as nearly to meet, one on the inside and one on the outside of the thigh, the latter being long enough to reach to and steady the trochanter.

These splints should be secured with bandages or cords. The weight should be applied and gentle extension and counter-extension made before binding on



the splints. An air or feather pillow should be placed under the knee, so as to elevate it about five inches above the bed when the fracture is low down; when high up, not so much as five inches. To prevent eversion of the limb, two pieces of thin plank, about five inches wide, should be nailed to the board at the foot of the bed below the roller, long enough to reach above the ankle, and

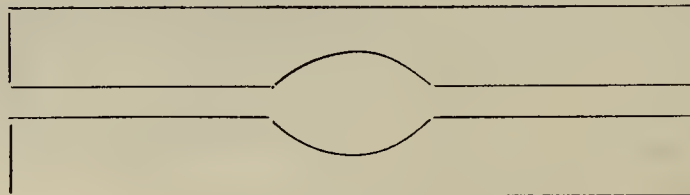
the foot steadied by wool cushions placed between the foot and these boards. A thin light board about as wide and a few inches longer than the foot should be placed between the foot and Buck's thin block, so as to support the foot.

In applying the adhesive plaster care should be taken to have Buck's thin block so near the foot that the pressure of the foot will retain the thin board in its place. The counter-extending bands, the extending cord, and the pelvic band, being secured at an elevation, have a tendency to lift the body and lighten its pressure on the bed, so that bed sores are never caused. The jacket affords a comfortable support, taking off the weight of the body from the fractured limb. When taken off after being worn for four or five weeks, the patient at once complains of the pressure of the body on the bed. The perineal band is dispensed with, which is a great advantage, especially in women. There has not been any perceptible shortening in any case treated with these appliances. In adult cases the jacket readily antagonizes a weight of fifteen to twenty pounds. The ordinary mattress arranged for defecation should be used. I feel confident that any surgeon who uses these appliances once will not lay them aside for any others now in use.

It is necessary that the belt at the lower edge of the jacket should be kept so tight that it cannot slip up over the lower edge of the ribs. If it does, the jacket must be loosened, pulled down and the belt tightened. Some little time may elapse after it is first put on before it ceases to stretch and give any trouble. In one case the patient removed it the first night but asked to have it replaced in a few hours.

So much of this article is taken from the "Transactions of the Mississippi State Medical Association." The author continues in his communication to this JOURNAL as follows :

I feel very much flattered that you should think favorably of my article on fracture of the femur. The cut in the transactions was taken from a case of compound comminuted fracture of the femur caused by a large conical pistol ball, which passed through the limb and half buried itself in hard wood, and was found at a distance of ten feet. You will observe that there are some differences in the dressings growing out of the nature of the case from those described in the article. The photograph was taken from this case at the request of the Secretary of the State Medical Association, the article having been previously reported. The splints were applied to the naked skin, and the two next to the wounds were cut out thus



to admit of washing and dressing the wounds, without disturbing the coaptation splints or relaxing in the least the extension or counter-extension. An air-pillow (under the leg and knee), blown up, partially elevated the thigh a little, so as to admit under it a piece of rubber-cloth to carry off surplus water in washing the

wounds. The result in this case was perfect. This seems to me to be much preferable to Hodgen's or Nathan R. Smith's splints for gunshot fractures of the femur. I have used this jacket for counter-extension with a perfect result in a case of fracture of the neck of the femur; also in a case of ununited fracture of the shaft of the femur of ten weeks' standing, in which there was no union and a shortening of two inches and three-quarters; the two ends of the bone being freely movable one upon the other, and the bone could be bent readily to a right angle at the point of fracture. This patient walks now with scarcely a limp, and with a shortening of half an inch. It is especially applicable to females, particularly to little girls. I have just taken it off of a little girl's thigh six years of age with a perfect result. It is applicable to all ages and both sexes, and to every form of fracture of the femur. The counter-extension is fully sufficient in any case. The photograph, or cut from it, in the "Transactions" represents a case in which the muscular spasms from spiculæ of bone were so great that (21) twenty-one pounds extension were required, afterwards reduced to twenty and then, after fourteen days, to fifteen pounds. If one will examine the results of gunshot fracture of the femur in the third surgical volume "Medical and Surgical History of the War," he will see that some improvement on Hodgen's or Nathan R. Smith's plans is required. If one could have seen the little girl just treated lying comfortably, playing with her dolls, he would have a little respect for this jacket; that is, provided it furnishes the required counter-extension. I treated one little girl two years of age with a perfect result. I have treated eleven cases, and I am fully satisfied with it. I think Dr. F. H. Hamilton admits that his plan of elevating the foot of the bed does not answer for children. It certainly will not answer in cases of delirium, insanity, or in cases that are so ignorant that the will cannot be made a part of the treatment. Other surgeons who have used it prefer it to any other plan. I have the jacket which came off from the little girl. It was made by her mother, under my direction. When the case is over you can put all the dressings in your overcoat pocket. They cost about one dollar. If the jacket is made by a tailor, the whole of the dressings cost about one dollar and eighty cents. But it is only by frequent trials that a surgeon can appreciate the great relief from trouble, expense and suffering which this jacket affords. I hope it may be made known in army circles, for it will answer the purpose in gunshot fracture of the femur.

ARTICLE III.—SPASMODIC URETHRAL STRICTURE. By F. C. TICE, M.D.,  
Peoria, Ill.

That the tendency of organic stricture is to return, is generally admitted; as in my experience the liability is much greater where there is co-existent spasmodic stricture at or near the meatus, my rule has been to remove the latter in any case where it seriously interfered with the treatment of organic contractions beyond, and the results have been gratifying to the patient and to myself. In the treatment of spasmodic stricture at or near the meatus, the text-books recommend division followed by plugging to prevent hæmorrhage. Against this there are several serious objections. The plug completely closes the canal,

so that when necessary to relieve the bladder the plug must be removed : bleeding invariably follows. The patient cannot replace the plug, and must, therefore, go to the surgeon each time he desires to micturate. Dilatation is necessary that union and contraction may not occur ; this causes more or less pain, and for several days bleeding follows each operation. To obviate all this, I have adopted a mode of procedure as follows : The penis is blanched by means of a rubber bandage ; the exact point of constriction is noted by means of an olive-pointed bougie ; then, with a probe-pointed bistoury (I prefer the curved) the division is accomplished. The wound being thoroughly dried, flexile collodion is applied to the cut surfaces, and extends slightly over the sound tissue. After applying several coats and allowing them to harden, the surfaces are closely approximated. An assistant now passes an oiled bougie, No. 12, French scale, through the upper portion of the canal to keep it patent, while six or eight coats of collodion are applied as a splint to hold the surfaces together ; when the last coat is dry, the bougie is carefully removed with a spiral motion, and the rubber bandage is taken away in such a manner that the re-establishment of circulation takes place gradually. If the operation has been properly performed not one drop of blood will be lost. The organ is then strapped to the abdomen, and the patient ordered to keep quiet at his home for several hours. The straps are removed in twelve hours. In from three to six days, the entire collodion coating comes away in one piece ; the cut surfaces are found to be healed ; no union has taken place, and treatment of posterior organic strictures can be easily accomplished. A number of cases in which this treatment has been adopted have been signally successful : in but one case has there been hæmorrhage following the operation, and in this the stricture was rather too far back to allow of proper application of the dressing, and the patient was of hæmorrhagic diathesis. The main points are to have the cut surfaces perfectly dry ; the collodion to cover the entire cut surface and a portion of the sound tissue, and the whole protected and held together by the outer collodion splint. I have never seen this method suggested, and believing it to be new, original, and, above all, practical, and greatly to the advantage of patient and surgeon, I place it before the profession for what it is worth.

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A SYPHILITIC PLACENTA.—Before the Medical Society of the District of Columbia (*Maryland Medical Journal*), Dr. Murphy presented a syphilitic placenta, obtained from a woman whose vagina was filled with condylomatous warts. The cord measured forty-one and a half inches. He presented for comparison a placenta obtained from a healthy woman. In the supposed syphilitic placenta the vessels were largely dilated, and the chorion and amnion presented abnormal features. This placenta was thicker, harder and larger, though weighing less than the healthy one, and fatty degeneration was going on more rapidly. Could these differences account for still-births occurring in syphilitic subjects ?

## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

PULSATING EMPYEMA.—This interesting affection has been made the subject of a dissertation by Dr. Comby, who gives some additional information about it (*Archives Générales de Médecine*, Nos. 11 and 13, 1883). A pulsating empyema presents the ordinary symptoms of chronic pleurisy, associated with visible and tangible pulsations which simulate those of an intra-thoracic aneurism of the aorta. The pulsations may occupy a large surface, or a limited part of the thoracic wall; they are observed on the left side only, and appear one or two years after the pleurisy itself. Two conditions are necessary for their occurrence; first, the left lung must be indurated, and transformed into an almost solid fibro-elastic mass; then this fibro-elastic mass must be fixed by adhesions to the pericardium, but not retracted towards the vertebral column in the usual manner. These conditions were only found by Comby in phthisical patients, and the prognosis is of course very unfavorable. A pulsating empyema is liable to be mistaken for an aneurism of the aorta, but there is no expansion, no *bruit* and no modification of the femoral pulse, while the existence of fluid in the pleural cavity is constant. Intra-thoracic malignant growths, and Graves's pulsating pneumonia may also cause some difficulty, and must not be forgotten in the diagnosis.

CHOLECYSTOTOMY AND EXTIRPATION OF THE GALL BLADDER.—Dr. Martin Burke of New York has recorded (*New York Medical Record*) two cases of successful incision of the gall-bladder. The first was a youth aged 18, incapacitated from work through a pain in the abdomen, which was severe and constant as long as he stood erect. Immediately to the right of the ensiform cartilage was a small fluctuating tumor, painful on pressure, and of the size of a duck's egg. There was slight jaundice, and elevation of temperature, little or no constipation, and no abdominal tenderness, except over the swelling. Suppuration of the gall-bladder was diagnosed; and Dr. Kearny, a colleague of Dr. Burke, made an incision into the swelling. A large quantity of bile and pus escaped; and, a week later, a probe could be passed through the wound three inches deep into a cavity. The wound healed rapidly. The second case was that of a woman aged 50, a rheumatic subject. She had been seized a year before treatment with a violent pain in the right hypochondriac region. Local sensitiveness on pressure continued, notwithstanding frequent blistering and leeching. A second acute attack supervening, an incision was made over the tender spot in the hypochondrium; an abscess-cavity was thus opened, and fifty gall-stones discharged, their combined weight being one hundred and thirty grains.

Poulticing, as applied before the operation, was continued, and the wound was washed out thoroughly every six hours. A drainage tube was kept in the wound for eight days. After a week of continued convalescence, the patient completely lost her appetite, which was restored by the use of the wine of Mariana, which appears to contain coca. Recovery was perfect. Throughout the course of this case jaundice appears to have been entirely absent. Extirpation of the gall-bladder was recommended by Langenbuch at the Congress of German Surgeons last year, and has been undertaken in three cases with the view of preventing the repeated accumulation of gall-stones. The first operation gave a satisfactory result. In the second case, no stones were found, but the gall-bladder was much thickened and inflamed; the patient was cured, and there was no return of the pain which was felt before the operation. The third case was that of a woman, aged 34, who had suffered for about a year from violent hepatic colics; the pain had become continuous, and the patient was unable to work. A hard and painful tumour could be felt in the region of the gall-bladder; an incision was made, and the gall-bladder was found much thickened and contracted around two large calculi; the whole sac was extirpated, and a complete recovery ensued. Langenbuch advises to begin by detaching the gall-bladder from the liver, and then to tie the cystic duct.

**IODOFORM IN CHRONIC CYSTITIS.**—Dr. David Prince gives (*St. Louis Medical and Surgical Journal*) the result of his treatment of cystitis by iodoform. Reasoning from the fact that iodoform had a sedative effect on irritable surfaces, he decided to apply it internally to the inflamed bladder. Starch was used as the vehicle, one drachm and a quarter of iodoform being ground with one drachm and a half of starch, and mixed with eight ounces of water. Three ounces of this were used as an injection. The result was satisfactory; obstinate cases of chronic cystitis, it is stated, yielded to this treatment. Dr. Prince suggests that the treatment of moderate strictures of the urethra, accompanied by vesical inflammation, may be advantageously managed by a precursory treatment with iodoform and starch, after which the treatment by electrolysis and the mechanical means for dilatation may be employed. It is anticipated, from this experience, that the treatment may be employed for gonorrhœa. The employment of pencils or bougies of iodoform in gelatin has been very satisfactory, but their retention cannot be prolonged beyond the first act of micturition. In the employment of the proposed injection, it may be expected that the iodoform will not be completely expelled by the first passage of urine, on account of the adhesion of the heavy crystals of iodoform to the mucous membrane.

**CONTAGIOUSNESS OF PHTHISIS.**—The statistics of the large Brompton Hospital for Consumptives, for thirty-six years, with regard to the resident officials, compiled by Dr. F. Williams (*Lancet*), show that of four



resident medical officers, one of whom had served twenty-five years, none had any lung disease; of six matrons, none were consumptive; of 150 resident clinical assistants, eight became consumptive and five died, but in only one was the disease developed during residence at the hospital. Since 1867, of 101 nurses, only one died from phthisis, and that after leaving the hospital. Before 1867, six died, three of these of phthisis, but only one became so whilst resident, and she had a consumptive sister. She died thirteen years after first joining the hospital, but was not there the whole time. Of thirty-two gallery maids since 1867, none developed phthisis whilst at the hospital. Of twenty house porters, five died, but none of consumption. Non-residents: Of nine secretaries, three were threatened with lung disease, but recovered. Of twenty-two dispensers, seven died, three of phthisis, one while at the hospital. Of four chaplains, three died, none of phthisis. Of twenty-nine physicians and assistant physicians, eight died, none of phthisis. At the Chest Hospital, Victoria Park, there have been five resident medical officers during about the last fifteen years; all are alive and well. Two matrons, neither consumptive. There were two clinical assistants appointed every three months; none known to have developed the disease at the hospital. One nurse out of fifty or sixty in the last few years became consumptive while at the hospital, and she died after a year's illness.

ARSENIC IN A HUMAN BODY.—The *Medico-Legal Journal* of September last contains an interesting account, taken from the *American Chemical Journal*, of the critical examination of nearly one-half of the entire muscle and bony tissue of Jennie Cramer, disinterred six months after burial, the object being to ascertain the actual amount of arsenic in the whole body, and to gather all the facts possible relative to the distribution of arsenic in the corpse. The case of the woman Cramer has given rise in the United States to much comment, and the public mind has been left in great doubt concerning it. The body was found floating in the shallow water of a sandy beach. It bore no evidence of having been long in the water, and a necropsy made at the time failed to reveal the cause of death. Into the methods of analysis employed we need not enter. The quantitative results are given with great exactness, and in minute detail. The summary is as follows:

	<i>Total weight.</i>		<i>Total AS<sub>2</sub> O<sub>3</sub>.</i>
	<i>Lbs. oz.</i>		<i>Grains.</i>
Left arm.....	2	11 $\frac{1}{4}$	.094
Right leg, except thigh bone.....	10	4 $\frac{1}{2}$	.118
Thigh bone.....	0	7	—
Transverse section.....	8	15 $\frac{1}{2}$	.186
Muscle from breast.....	1	2 $\frac{1}{4}$	.098
“ “ back.....	1	6	.356
	<hr/>	<hr/>	<hr/>
	24	14 $\frac{1}{2}$	.852

The entire body, without the internal organs, weighed 57 lbs.; thus the arsenious acid found was in the proportion of 1.95 grain for the

entire muscular and bony tissue. By another calculation it was estimated that the amount of arsenic present in the whole body at the time of death, calculated as arsenious oxide, was 3.12 grains. The analysis showed an uneven distribution of the arsenic from none, or very little, in the bones, up to a quarter of a grain in the muscle of the back, and a greater amount in the larger vessels and organs of the body, which fact Prof. Chittenden claims as clearly indicative that the arsenic was taken but a short time before death. He also asserts that in chronic poisoning, or when the arsenic has been in the body a considerable time before death, the kidneys indicate this clearly; while in the case of Jennie Cramer the amount of arsenic in both kidneys was only 0.03 grain, while there was nearly three times as much in the tongue and throat, a fact which, as he says, conclusively shows that this was not such a case, but that the poison must have been taken shortly before death. Again, it has been asserted that the presence or absence of arsenic in the brain is an index as to whether the poison was introduced into the body before or after death. By no ordinary process of diffusion, within a limited time, could arsenic pass from the alimentary canal to the brain. But, on the other hand, in cases of poisoning by arsenious acid, the absence of arsenic in detectable quantities in the brain, as Prof. Chittenden points out, in no wise proves that the poison was not taken before death. For, as E. Ludwig has shown, in poisoning by arsenious acid, the bones and the brain contain but mere traces of the poison, while the liver, as a rule, contains most arsenic. In the case of the woman Cramer, one-third of the brain was found to contain 0.025 grain of arsenic, or in the proportion of 0.34 grain to 1 lb. of brain and the alcohol in which it was mixed when delivered for analysis. Hence the arsenic was in a form readily soluble and diffusible. The facts as regards the brain are not in favor of the view that the poison had been administered to her shortly before death. The whole paper is well worthy of the consideration of toxicologists, who can appreciate the magnitude and difficulty of the task which Prof. Chittenden undertook.

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## ORIGINAL TRANSLATIONS.

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THE GRAVES-BASEDOW DISEASE AND EXOPHTHALMIC GOITRES. By PAUL LE GENDRE. Translated from *L'Union Médicale*, by H. McS. GAMBLE, M.D., Moorefield, West Va.

There is a predilection in our days for a revision of the nosological table which has been bequeathed to us by former generations.

A great number of pathological states, considered formerly as independent entities, have been subjected to analysis. More than one disease, which in the nomenclature of the past enjoyed a distinct place among the various morbid

actions, has not been able to bear contemporaneous criticism, and has seen its individuality vanish ; it has been compelled to come down to the state of a simple symptomatic complexus, susceptible of being associated with different causes.

We will not stop here to inquire to whom, in historical justice, it is proper to attribute the paternity of the disease designated in the greater part of works on pathology under the name of exophthalmic goitre. Whether its first describer was Parry (1825), as M. Vulpian believes, or Pauli of Hanau (1837), or Henry Marsh (1841), as M. Tapret will have it; custom—*quem penes arbitrium est*—has indissolubly associated with it two other names, and, just as progressive muscular atrophy is the disease of Duchenne-Aran, so will exophthalmic goitre remain the *disease of Graves-Basedow*. Is it, however, really a disease? Under this title, religiously preserved, might not different things have been classed—sometimes a neurosis, sometimes the syndrome characteristic of a local compression? This is what the examination of some recent publications will enlighten us upon :

1. The classical description of the disease of Graves-Basedow comprised three cardinal symptoms : goitre, exophthalmia, and palpitations of the heart ; around this fundamental triad gravitated a cortège of very varied phenomena, called accessory disorders of the disposition of the digestive functions, of sensibility, of menstruation, etc., “ all these somewhat incongruous signs being connected with one another by the nervous system, which is their common foundation, and by the single fundamental disease of which they are the manifestation ” (Grasset).

But it has been known for a long time that the classical schéma is far from being applicable to all clinical cases. In order to preserve to the traditional triad its theoretical personality, it has been necessary, so to speak, to enlarge the signification of each one of its terms ; thus, goitre has become, in the case in question, the synonym of enlargement of the thyroid body, apart from the nature of this increase in volume ; under the head of exophthalmia have been described divers abnormal states of the ocular apparatus, and the palpitations are but one of the modalities of the cardio-vascular disorders observed in this affection.

In fact, if we analyze the descriptions published under the names of exophthalmic goitre, disease of Graves or of Basedow, we see that goitre is therein described with the most dissimilar characters. Many authors have seen, like Trousseau, in the tumefaction of the thyroid body the result of a considerable hyperæmia and of a vascular ectasia, often intermittent, accompanying or following crises of palpitations, of the emotions or of the menstrual period ; to these persistent congestive troubles has been seen to succeed a hyperplasia or a sclerous atrophy of the gland. But, in other and quite numerous cases, the tumefaction of the thyroid, produced in a continuous, regular manner without crises, was a neoplasm (fibro-sarcoma, fasciculated sarcoma, cystic tumor), and almost always, in those cases, it seems that the appearance of the thyroid tumor had preceded that of the other signs of the triad. The disorders of the ocular apparatus are not always and solely exophthalmic. De Graefe has admitted

one sign, the want of consensus between the movement of the eyelid and the elevation or depression of the globe of the eye; this phenomenon seemed to him so pathognomonic that he diagnosed, says Eulenberg, the neurosis of Graves in a patient who presented only this symptom and palpitations. Whilst experimental exophthalmia in animals is accompanied generally by dilatation of the pupil, and pupillary changes are observed in the case of functional disturbance of the cervical sympathetic secondary to a tumor of the neck, Eulenberg does not admit any pupillary modification in the disease of Basedow pure and simple. Finally, besides the purely functional disturbances of the cardiovascular apparatus, such as paroxysms of palpitation, the frequency of the pulsations and of the throbbings of the heart (tachycardia), some descriptions speak of dilatation of the cavities of the heart, and of lesions of the orifices, as tricuspid insufficiency.

In order to continue to preserve the facts observed in harmony with the primitive description, some have even been brought to admit irregular cases in which was wanting something of the three grand phenomena; these, little by little, have been seen to disappear, two of the symptoms considered as characteristic by Graves and Basedow "to such a degree that it is probable," said a critic, "that these authors would not have recognized the disease which they have described to us."

The modifications offered to-day in the symptomatology of the disease of Basedow consist then in that a less degree of importance is attached to certain classical signs, and that some signs overlooked heretofore or left in the shade have been placed in the front rank.

2. The necessity of modifying the conception of the disease and of extending its symptomatic limit seems to us to follow from the two excellent studies published by our friends, G. Ballet and P. Marie, at the suggestion of their master, Prof. Charcot.

M. Marie has demonstrated that the *trembling*, described for the first time in France by M. Charcot in 1862, afterwards noticed by different authors, and which notably formed the subject of a work read by M. Guineau de Mussey before the Société de Thérapeutique, constitutes one of the most constant symptoms of the disease of Basedow, so that it even allows its irregular forms to be diagnosed.

But, if it is nearly constant, its intensity is most variable; sometimes it predominates to such a degree over the other symptoms that it alone attracts the attention of the patient; sometimes the physician is obliged to seek for it by placing the patient under certain conditions that render the observation of it more easy. In well-accentuated cases, the whole body is agitated by a continual "tremulation;" if the patient is standing, the rapid oscillations by which he is excited seem to take place in a vertical direction; if he is undressed and at rest, one sees that almost all the muscles of the extremities and of the trunk are the seat of *fibrillary movements*, which are absent from the face and the tongue (Fréréol); it is like a palpitation of the whole surface of the body.

The upper extremities present little rapid oscillations, especially visible at the extremity, and to a certain degree comparable to alcoholic trembling. The con-

sequence may be a considerable embarrassment in the act of writing or of sewing. The trembling of the lower limbs appears sometimes only when the patient is seated, the feet resting upon the toes upon the floor. It may become sufficiently intense to render walking uncertain and staggering.

This trembling, studied by aid of the myographic drum (tambour), furnishes a tracing, the character of which permits the diagnosis from other tremblings. The rhythm of the oscillations is uniform in a horizontal direction. The vertical oscillations, gradually increasing in extent, then regularly decreasing, give to the tracing a fusiform aspect.

The number of the oscillations varies from eight to nine and a half per second, whilst in paralysis, agitations, and senile trembling, it is, on an average, five per second.

The tracing obtained by means of a ball applied to the palm of the hand gives a line but slightly wavy and almost rectilinear in the disease of Basedow, whilst, in general paralysis and in alcoholism, the tracing taken under the same conditions is very jerky, and is composed of a series of multiple changes of direction. M. Marie concludes that, in the disease of Basedow, the trembling of the fingers is due to the succussions of the other segments of the upper limb, whilst in these other affections the muscles of the fingers are more particularly attacked with the trembling.

Whatever may be the value of these characters, so minutely studied, and rather delicate to render any clinical service, it follows none the less, according to M. Marie, that the presence isolated or simultaneous of goitre and of exophthalmia is by no means necessary to diagnosticate the disease of Basedow. It should be thought of each time that in a patient one observes a permanent tachycardia and this trembling, without notable increase of temperature. Finally, there exists a certain number of other important symptoms to be taken into consideration, such as the paroxysmal diarrhoea without colic, the sweats general or local, the angina pectoris, the boulimia, the insomnia with subjective sensation of heat, the spasmodic cough without expectoration or physical signs; finally, certain cutaneous manifestations, pigmentary spots, vitiligo, eruptions of urticaria, etc.

As far as concerns angina pectoris, which has sometimes shown itself in exophthalmic goitre, M. Henri Huchard, whilst ranking it among the cases of angina pectoris of nervous origin, and admitting that the disease of Basedow is a general neurosis, asks himself if the anginous paroxysms in this disease are really of central origin, and if their pathogenic interpretation ought not rather to be sought for sometimes in the sudden and passing dilatations of the heart, in the neuralgic symptoms or the vaso-motor disorders, sometimes even in the gastro-intestinal derangements in consequence of their reaction upon the cardiac muscle. M. Gilbert Ballet has especially sought to throw light upon certain disorders, some rare, others more common, which necessarily involve a morbid condition of the central nervous system, whether they are made to depend upon the general cause which engenders exophthalmic goitre, or are subordinate to the disorders of the cerebral circulation consecutive to the cardiac hyperkinesia. We have to deal sometimes with phenomena of a *convulsive order* connected with

the epileptic or epileptiform type, sometimes with manifestations of a *paralytic order* (hemiplegia, paraplegia) with *disorders of sensation*. Besides, M. Ballet insists upon the modifications of the urinary secretion long ago described in certain cases, but more frequent, it seems, than was supposed: *albuminuria*, *glycosuria*, and *polyuria*, appear to indicate a disturbance of the bulbo-protuberantial innervation. M. Panas had already defended the bulbo-protuberantial origin of exophthalmic goitre, and Filehne (d'Erlangen) has succeeded in reproducing the triad of Basedow by experimental lesions of the restiform bodies.

M. Ballet finds himself forced to conclude that "the disease of Graves seems to be nothing else than one of the numerous symptomatic modalities by which the nervous diathesis betrays itself, a symptomatic modality which sometimes presents itself in an isolated state, sometimes combined with other manifestations (epilepsy, hysteria, chorea). There might be room, however, to inquire whether certain bulbo-protuberantial lesions are not of a nature to determine the symptomatic complexus of Basedow. It might then be with the exophthalmic goitre complexus as with the complexus of hemianesthesia, for example, which, though most frequently one of the common manifestations of hysteria, nevertheless betrays in some cases a material localized alteration.

3. Must it be said that this conclusion is applicable to all the cases published under the name of exophthalmic goitre? This seems difficult to admit after reading the interesting thesis of M. Henri Bénard, who has applied himself to elucidating the pathogeny of this disease, and who, after having passed in review the numerous theories proposed to explain it, has arrived at an eclectic solution.

The pathogenic theories relative to exophthalmic goitre are divided into three groups:

Sometimes the symptoms of exophthalmic goitre have been explained by cardio-vascular theories.

The heart has been accused, notably by Graves, by Stokes, who incriminated the dilatation of its cavities, by Luton, who attributed to tricuspid insufficiency the origin of the vascular troubles capable of producing the different forms of the syndrome.

The opinion which sees in anæmia the cause of all the symptoms of the exophthalmic cachexia boasts of the names of Basedow, Beau and Bouillaud.

Sometimes exophthalmic goitre has been explained by nervous theories.

To some, paralysis of the pneumogastric (G. Sée), to others, the lesions of the *great sympathetic* (Trousseau) have appeared to be the key of the symptoms.

Since this last explanation has been shaken by M. Vulpian, it is in the superior nerve centres, *the cord or the bulb*, that the cause of the phenomena observed is sought for, the vasomotor system being only "the secondary instrument of a more elevated impulsion."

Finally, M. Peter thought that he had found in the brain itself the point of departure of the disease, resting this opinion upon the psychical disorders which, according to M. Ball, are presented sometimes under the form of anxious melancholy, sometimes under the form of maniacal agitation.

But if it is true that, in many cases, the syndrome of Graves-Basedow may be

considered as a complex neurosis, vaso-motor, cerebro-bulbar or bulbo-protuberantial, it will remain none the less necessary to take account of cases in which surgical ablation of a goitre has caused to disappear the symptoms of tachycardia, of exophthalmia, and of other nervous disorders (malaise, insomnia, change of temper), very analogous, if not absolutely similar to those of the pure disease of Basedow.

It is to these cases, says M. Bénard, that the third grand pathogenic theory is adapted, that which makes all the symptoms of compression of the organs of the neck depend upon the goitre.

The thyroidean tumor may act, then, either by producing lesions of the great sympathetic, by impairing the pneumogastric, or by compressing the jugular veins. In every case, then, the tumor precedes the other symptoms, and, in the cases cited by M. Bénard, the two tumors extirpated by his teacher, M. Tillaux, were neoplasms, and differed, consequently, from the vascular goitre which in general characterizes the true disease of Basedow.

M. Le Dentu had already admitted a medical exophthalmic goitre, and another surgical; for the theory of compression evidently could not explain the irregular cases of exophthalmic goitre, that is to say, the irregular cases of the disease of Basedow without goitre.

One might object to the theory of compression that very voluminous goitres may exist without producing tachycardia, exophthalmia, etc., but doubtless the production of these symptoms depends much less upon the volume of the tumor than upon its connections, more or less intimate with the organs of the neck, and with the vasculo-nervous bundle.

To sum up, we believe that at the present time there ought to be a sorting of the descriptions of cases which exist in science under the names of disease of Basedow and of exophthalmic goitre.

Some are evidently of a medical order; the triad is more or less complete, but the presence, isolated or simultaneous, of exophthalmia and of goitre is by no means necessary in order to characterize the affection, for which it is convenient to preserve the name of *Graves-Basedow Disease*, whatever opinion one may have as to its nature. Finally, there exist reliable, authentic histories of goitre, or rather of thyroid tumors, accompanied or followed by the syndrome, tachycardia, exophthalmia, etc., and in which extirpation of the tumor seems to succeed in curing or amending the other symptoms. Is it not to these cases alone that truly belongs the appellation of *exophthalmic goitres*?

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## ORIGINAL ABSTRACTS.

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(BY J. G. KIERNAN, M.D., CHICAGO, ILL.)

UNGRATIFIED SEXUAL APPETITE A CAUSE OF FEMALE DISEASE.—Dr. Gillette (*New York Medical Journal*, July 14, 1883) cites the following cases: A widow consulted the doctor for constant neuralgic pains in the pelvic regions, by which her life had been rendered miserable. She gave a history of two or three attacks of pelvic cellulitis some time previously, for which she had been treated by sev-

eral physicians. All the treatment, however, had failed to relieve her of her persistent pain in either ovarian region. Her general appearance was that of a woman in good health and well nourished. Her menstruation, she said, was painful and irregular as to time, but pretty constant as to quantity. This had been her habit through life. She had never been pregnant. Upon examination, the pelvic organs were extremely sensitive, and there was considerable pain over either ovarian region upon pressure. There was so much adipose tissue that it was impossible to determine through the abdominal wall whether there was any tubal enlargement or not, and through the pelvic region it was utterly impossible to make any satisfactory examination of the condition. From the history the case seemed to be one of pyo- or hydro-salpingitis; and, as a last resort, Tait's operation was recommended. She stated that, if her sufferings should continue as they had, she would not hesitate, as she was perfectly miserable as she was. During the summer, however, she took a trip to Europe, and while on the steamer met a gentleman to whom she became engaged, and, on her return from Europe, they were married. From that time all pain disappeared entirely, and, so far as she knew or the doctor could ascertain, she was as well as any woman he had ever met. There was not the least degree of pain on examination, and the introduction of the probe into the uterus, which she could not tolerate previously, and which indeed at one time almost lighted up a cellulitis, was borne with perfect impunity. There was no tenderness over the ovaries, and there was no point of tenderness to be elicited anywhere, and nothing to indicate that there could be, by any possibility, any disease whatever of the pelvic organs. This case, undoubtedly, was one not at all uncommon among widows—simply one of reflex irritation consequent upon ungratified sexual appetite. The lady herself, who was a very intelligent woman, did not hesitate to join the doctor in this his last diagnosis of her condition. Another of the cases to which reference had been made, and which would seem to call for Battey's or Tait's operation, was that of a woman who had been a mistress, but who was now under a certain religious restraint. She had changed her sexual relations, her pelvic symptoms had developed, and she had hysteropilepsy in addition to pains referable to the pelvis and ovarian regions. No enlargement of the tubes had been demonstrated in her case, but all her other several sexual organs, so far as they could be examined, were in a highly hyperæsthetic condition, and at times apparently almost in a state of inflammation. In the opinion of the speaker, this case was almost identical in many of its features with the other. The patient had formerly indulged in sexual excesses. She had been seen by several physicians, and it was a question with them whether an operation for the removal of the ovaries or tubes was justifiable or not. These cases were either or both of them typical of cases heretofore operated upon according to Battey's method, and there could be no question, probably, that, if the operation of Battey had been performed, and the ovaries removed, all pelvic symptoms might have disappeared as a matter of supposed natural consequence; but the fact that one of them had been cured by the resumption of a normal function was very interesting; and probably in many instances there should be a pause before recommending the operation to young or unmarried women on this very account. He knew that reflex irritation from the male sexual organs produced strange phenomena, and the late Dr. Van Buren had attributed many of the nervous conditions and perturbations of men to ungratified sexual desire. There could be no question about it, that this ungratified sexual appetite created a most unfortunate series of phenomena in both sexes, and more particularly in the female than in the male; consequently, it must always be estimated in considering such a serious operation as Battey's or Tait's. The modesty and native secretiveness of women would rarely assist in such cases by a direct avowal or confession, and in all cases every effort ought



to be used to determine the exact psychological state of unmarried women who were willing to submit to the severest surgical alternative that can be presented to them for relief from pelvic pain or distress. These cases illustrate not the point raised by Dr. G., but that the psychical influence of oophorectomy is very probably the chief.

OÖPHORECTOMY IN PELVIC NEURALGIÆ. — Dr. Mundé (*New York Medical Journal*, July 14, 1883) cites the following case: A widow, thirty-seven years of age, had been for about eight months suffering from neuralgic pains in the pelvic region, extending down the right thigh, and from hysterical symptoms. At the end of that time she came under Dr. Mundé's observation. For about two months it was hoped that some relief might be given by other means than the administration of opium, which she had been taking in considerable quantity. The only pathological condition discovered was what was believed to be thickening of the broad ligaments. There was a history of pelvic cellulitis. The patient six years before had suffered in a similar manner, and Dr. Schramm, of Dresden, amputated the cervix for, as she believed, enlargement of the womb. The operation was followed by relief of two years' duration. The only means which seemed to offer any prospect of relief on the present occasion was Battey's operation, with or without removal of the tubes, and it was doubted whether, without more definite pathological indications, it was justifiable to resort to this, but Dr. Mundé finally yielded to the patient's wishes, and performed the operation. Both ovaries with their tubes were removed. The right one was free, the left adherent, but no diseased condition was apparent. During the first twenty-four hours after the operation the patient was very irritable, and a large amount of Magendie's solution was required to keep her quiet. The temperature on the second day rose to 103° Fahr., but was controlled by cold water passed through a coil of rubber tubing placed upon the abdomen. Within a few days the patient recovered entirely from the operation, the pain of which she had complained before ceased at the end of three weeks, all narcotics were stopped, and it seemed that an excellent result was likely to be established permanently. Soon afterward, however, the old symptoms of neuralgia and hysteria returned, and were now worse than formerly. It is clearly evident that this operation, like other surgical procedures would have done, exerted in this hysterical female a temporarily beneficial influence from the impression it made on the patient's mind.

KNEE-JOINT DISEASE FROM PATELLAR NECROSIS.—Dr. G. A. Wright (*Lancet*, April 7, 1883) reports two cases of knee-joint disease of this kind. The first patient, an eight-year-old boy, six months before coming under observation, fell and injured his knee; one month later the joint became swollen, red, and tender. Under treatment he almost recovered, but the knee was again injured, and inflammation occurred which resulted in an abscess. The right knee was considerably swollen, the swelling being almost entirely limited to the tissues around the joint, within which but little effusion was apparent. Three sinuses on the front and side of the knee freely communicated. These were laid open. After the joint became more swollen and tender, free incisions were made into it. The synovial membrane was swollen, but the cartilage seemed healthy, except one circular spot, about half an inch in diameter, in the centre of the patella, where a perforation existed which ran completely through the bone and communicated freely with the openings on the front of the knee. The wounds were treated antiseptically; some burrowing of pus took place. After some months the patient was discharged with an immovable apparatus, and did not return. The second patient, a seven-year-old boy, ten weeks before being seen received a blow upon the left knee, and the joint became painful and weak.

There seems not to have been any acute inflammation. There was no discharge until five days before he came to the hospital. The left knee was swollen and fluctuating, the swelling mapping out the synovial sac. The skin was somewhat red and the veins turgid, but there was little tenderness. A sinus existed over the front of the ligamentum patellæ which was found to lead to the upper surface of the patella. On laying the track open, a damson-stone-size sequestrum was found loose in the centre of the bone, on removing which a perforation into the joint was seen.

**FRACTURE OF THE PATELLA.**—Lister (*Medical Times and Gazette*) reports seven cases of patella fracture, in which the fragments were cut down upon and wired together. A longitudinal incision was made over the middle of the patella, knee joint was cleaned of any blood clots which had collected, and the broken surfaces of the patella were freshened, which were then wired together. In this manner bony union is secured. The cases were recent, and those in which some time had elapsed since the fracture, and where there was fibrous union, with a greater or less interval between the fragments. The recent cases are the more easy and satisfactory to treat; there is no difficulty in approximating the fragments after the blood clot and effused matter have been sponged out of the joint. In the older cases the fragments are often widely separated; possibly there is contraction of the quadriceps tendon, which must be divided; or the fragments of bone may be atrophied. It would be impossible to speak too highly of the results obtained; bony union of the fragments, with almost perfect movement of the joint, had resulted in every case.

**SULPHUROUS ACID IN ZYMOTIC DISEASES.**—Dr. D. A. Sheffield (*Journal of the American Medical Association*) says that a course of experimentation with this drug, extending through a period of more than twenty years, in almost every variety of zymotic disease has convinced him that its power over this variety of ailments has not been recognized and appreciated by the majority of the profession. That it is capable of modifying both the violence and duration of typhoid fever has been demonstrated to himself and his patients so many times that without the drug he should approach the treatment of a case of that disease with considerable trepidation. Given in moderate doses during the period of dry skin and parched brown tongue, its effects are often magical. This disease is but one of the many in which sulphurous acid is a remedy and a prophylactic. The acute infectious diseases are all modified, aborted, or wholly prevented by its use. While recognizing the latitude of the above declaration, the facts and proofs of its truth, in Dr Sheffield's possession, fully justify it. So fully is he persuaded of the immense value of this drug, that it is his intention to submit to the profession the results of twenty years of critical study of it. Most of the experiments have been made with soda bi-sulphite, though in a few cases a solution of sulphurous acid diluted with glycerine has been employed, giving equally as good results, but not as well tolerated by the patient. Let those who wish to demonstrate its utility use a saturated solution of soda bi-sulphite in water, giving one teaspoonful every two or three hours until the system is brought fully under the influence of the drug; afterward one dose every six hours will be sufficient to maintain its effect. It will be remembered that the results of Dr. Abodie, of Greece (*GAILLARD'S MEDICAL JOURNAL*, vol. xxxv.) tend to confirm these opinions of Dr. Sheffield.

**SPINAL CARIES IN TAILORESSES.**—Dr. J. Hopkins (*Lancet*, March 31, 1884) reports the following cases of spinal caries in tailoresses. The first patient, sixty-nine years of age, suddenly lost the use of both lower limbs; previously she had complained only of a feeling of dejection and indisposition to work.

There were increased reflex movements. The seventh dorsal vertebra was slightly prominent, pains occasionally shot down the front of the thighs, the bladder was distended, and the bowels were confined. The prominence of the vertebra became more marked. The patient died five weeks after the onset of the paralysis. On autopsy, the bodies of the seventh and eighth dorsal vertebræ were found carious. The spinal cord was compressed by abscesses pressing backward. The second case, a tailoress, forty-four years of age, when a child, was delicate, came under observation with a large abscess over the left thoracic parietes. For five years she had been ill, but had no pain. Four months ago a swelling appeared upon the left side; this was opened, and a piece of dead bone came away. One month later the patient began to experience pain in the right shoulder; later, pain and stiffness of the neck; then retention of urine and paralysis of the lower extremities; and finally she died from dyspnoea. On autopsy, the outer half of the right transverse process of the first dorsal vertebra was found broken off and reunited by firm fibrous bands, both to the part from which it had been broken and to the posterior transverse process of the dislocated seventh cervical. Caries had destroyed nearly the whole body of the first dorsal and the under-surface of the seventh cervical vertebra. An abscess had passed between the bodies and the posterior common ligament, thus compressing the cord. The third case was a tailoress, aged thirty-four; when a child had had an abscess and necrosis. When she came under observation, she had lost power over the lower limbs, and gave a history of caries of the vertebra, seventh, eighth, and ninth dorsal. She died from exhaustion. No autopsy. That spinal caries is an occupation disease does not follow from these cases which are too few to be of value.

TREATMENT OF PROLAPSUS ANI IN THE CHILD.—Dr. J. H. Jenkins (*Journal of the American Medical Association*, September, 1, 1883) says, in recent cases of prolapsus ani in young children, from the age of six months up to six years, the following plan of treatment has been adopted by him with uniform success: After each evacuation of the bowels, and when prolapsus has taken place, the nurse is instructed to carefully reduce the prolapsus, and to immediately inject into the rectum from two to four ounces of cold water, containing from 20 drops to half a drachm of the fl. ex. hammamelis. This is continued from day to day until the parts are restored to health, which usually requires from one to four weeks. During treatment, if the bowels become constipated they should be regulated by an occasional dose of castor oil or some other mild laxative, and, in the meantime, all exciting causes must be removed, and the patient's general health carefully looked after.

IODOFORM IN CYSTITIS.—Dr. Prince (*St. Louis Medical and Surgical Journal*, November, 1883) claims good results in the treatment of chronic cystitis from the use of iodoform. A soft catheter is introduced into the bladder, which is thus thoroughly emptied, if there is any residual urine which the patient is unable to void voluntarily. Then fifteen cubic centimetres of the following preparation are to be injected: Five grams of iodoform are ground with twenty-five grams of starch, and the whole is "moistened" with forty cubic centimetres of water. The mixture is injected daily and allowed to remain. The medicament is not entirely expelled at the first subsequent passage of urine, as the heavy crystals of iodoform adhere to the mucous membrane. Starch was the substance chosen for incorporation with the iodoform, because of its freedom from irritant properties. This treatment speedily allays the irritation of the vesical mucous membrane, and with it the painful reflex contraction of the muscular coat of the bladder. The relief of this reflex contraction greatly increases the available capacity of the bladder. A gentleman

who had suffered greatly for several years had no pain after the first introduction of the iodoform. He thought after four days' treatment that the capacity of his bladder had been doubled. Dr. Prince thinks that the same treatment will be beneficial in gonorrhœa. He thinks it will prove better than the use of pencils or bougies of iodoform and gelatin, because the iodoform, as he employs it, adheres to the urethral mucous membrane, and its action is therefore kept up for sometime after the injection has been allowed to escape. The action of iodoform when used in pencils or bougies can last only while they are retained. Dr. Prince also suggests that the treatment of moderate strictures of the urethra, accompanied by vesical inflammation, may be advantageously preceded by the use of iodoform and starch. Mechanical dilatation, electrolysis, or other measures, would, of course, be required afterward.

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## SELECTIONS.

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### TREATMENT OF AGGRAVATED HYSTERIA AND CERTAIN ALLIED FORMS OF NEUROSTHENIC DISEASE.

Dr. W. S. Playfair, of London, Eng., concludes an interesting and quite exhaustive article on this subject as follows :

The principal elements in the systematic treatment of these cases are :

1. The removal of the patient from unhealthy home influences, and placing her at absolute rest.
2. The production of muscular waste and the consequent possibility of assimilating food by what have been called "mechanical tonics;" viz.: prolonged movement and massage of the muscles by a trained shampooer, and muscular contractions produced by electricity.
3. Supplying the waste so produced by regular and excessive feeding, so that the whole system, and the nervous system in particular, shall be nourished in spite of the patient.

On each of these, he says, I shall offer one or two brief observations :

1. The removal of the patient from her home surroundings, and her complete isolation in lodgings, with only a nurse in attendance, is a matter of paramount importance. This is a point on which I am most anxious to lay stress, since it is the great crux to the patient and her friends; and constant appeals are made to modify this, which I look upon as an absolute *sine quâ non*. I attribute much of the success which I have been fortunate enough to obtain in my cases to a rigid adherence to this rule. In almost every instance of failure in the hands of others, of which I have heard, some modification in this rule has been agreed to, in deference to the wishes of the friends; as, for example, treating the case in one room by herself in her own house, or in admitting the occasional visits of some relatives or friends. While, however, the patient is to be rigidly secluded, it is incumbent to secure the attendance of a judicious nurse, with sufficient intelligence and education to form an agreeable companion. To shut up a refined and intellectual woman for six weeks with a coarse-minded stupid nurse, can only lead to failure. I have had more difficulty

in obtaining suitable nurses, sufficiently firm to ensure the directions being carried out, and yet not over-harsh and unsympathetic, than in any other part of the treatment. Whenever my case is not doing well, I instantly change the nurse—often with the happiest results. In addition to the isolation, the patient is put at once to bed, to secure absolute rest. In many cases she is already bed-ridden; in others there has been a weary protracted effort, and the complete repose is in itself a great gain and relief.

2. Under the second head comes systematic muscular movement, having for its object the production of tissue waste. This is administered by a trained rubber, and here again is a great practical difficulty. The so-called professional rubbers are, in my experience, worse than useless, and I have had to teach *de novo* a sufficient number of strong, muscular young women; and the aptitude for the work I find to be very far from common, since a large proportion of those I have tried have turned out quite unsuited for it. I cannot attempt any description of this process. I need only say that it consists in systematic and thorough kneading and movements of the whole muscular system for about three hours daily, the result of which at first is to produce great fatigue, and subsequently a pleasant sense of lassitude. Subsidiary to this is the use of the faradic current for about ten to twenty minutes, twice daily, by which all the muscles are thrown into strong contraction, and the cutaneous circulation is rendered excessively active. The two combined produce a large amount of muscular waste, which is supplied by excessive feeding; and in consequence of the increased assimilation and improved nutrition, we have the enormous gain in weight and size which one sees in these cases, it being quite a common thing for a patient to put on from one to two stones in weight in the course of five to six weeks. The feeding, at regular intervals, constitutes a large part of the nurse's work. At first from three to five ounces of milk are given every few hours, and for the first few days the patient is kept on an exclusive milk diet. By this means dyspeptic symptoms are relieved, and the patient is prepared for the assimilation of other food. This is added by degrees, *pari passu* with the production of muscular waste by massage, which is commenced on the third or fourth day. By about the tenth day the patient is shampooed for an hour and a half, twice daily, and by this time is always able to take an amount of food that would appear almost preposterous, did not one find by experience how perfectly it is assimilated, and how rapidly flesh is put on. It is the usual thing for patients to take, when full diet is reached, in addition to two quarts of milk daily, three full meals, viz.: breakfast, consisting of a plate of porridge and cream, fish or bacon, toast and tea, coffee and cocoa; a luncheon, at 1 P.M., of fish, cutlets or joints, and a sweet, such as stewed fruit and cream, or a milky pudding; dinner, at 7 P.M., consisting of soup, fish, joints, and sweets; and, in addition, a cup of raw meat soup at 7 A.M. and 11 P.M. It is really very rare to find the slightest inconvenience result from this apparently enormous dietary. Should there be an occasional attack of dyspepsia, it is at once relieved by keeping the patient for four-and-twenty hours on milk alone.

Such is a brief outline of the method to which I am here to direct your attention. As to the results, I have already published several remarkable illus-

trative cases, so that it is perhaps not necessary to do much more in this direction. I may say, on looking back at my cases, that the only ones with which I have had any reason to be disappointed, are those in which the primary selection has been bad; and in the few in which the results were not thoroughly satisfactory, I had doubts as to their suitability for the treatment, which I expressed beforehand. These include one case of chronic ovarian disease, and one of bad ante flexion with fibroid enlargement of the uterus, in both of which the local disease prevented any really beneficial results. In a third I had to stop the treatment in a week, in consequence of cardiac mischief; two others were cases of positive mental disease, and in one case there was true epilepsy. In my other cases the results have been all that could be wished, and in many of them the patients have been restored to perfect health after having been helpless bed-ridden invalids for years; in one case twenty-three without ever putting a foot to the ground, in others sixteen, nine, six, and so on. In two instances my patients were in such a state that it was found absolutely impossible to move them except when anæsthetized, and they were brought to London by the medical men long distances under chloroform, in each case leaving in six weeks perfectly cured.

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## LECTURES.

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INFANT FEEDING. By JOHN M. KEATING, M.D., Visiting Obstetrician to Philadelphia Hospital. Reported by W. A. EDWARDS, M.D., Asst. Dem. Clin. Med. University of Pennsylvania.

It has been my custom for some years, after having brought before the class numerous cases of children's diseases which make our clinic so interesting, to call your attention to an important branch of your life work, infant feeding, a subject that upon superficial thought seems so simple that the majority of medical students are apt to pass it by as pertaining to the nurse and not to the doctor; yet my associations with recent graduates enable me to say that it is the one subject that comes up before them soon after entering their medical career, and often it is not merely a matter which is important for the moment and easily evaded, but becomes either the portal of entrance to a large practice, or the starting point of embarrassments and disappointments which render their arduous duties even more irksome.

I wish distinctly to state that, though I shall dwell at length upon the feeding of infants with prepared food, I do not wish to be understood to underrate the value of mother's milk, or in its stead that of a reliable and well-developed wet-nurse. There are times when a mother cannot and should not nurse her child; a wet-nurse should then be the first thought. Then, again, I may also state, at this point, that a child which has been nursed for a short period can be very much more easily brought up by hand than one who is obliged to be hand-fed from birth.

The great question which has always given rise to so much hesitation and difficulty in its answer is upon what food to place a child. This at times is perplexing; it depends upon various conditions; it depends upon age of child, upon its health, upon residence, country or city, and upon the circumstances of the family. All these should be taken into consideration. Is it to be weaned gradually, or is it necessary that hand-feeding should constitute its only supply? If you attempt to study this matter from your text-books, you will be dazed with the number of suggestions there presented. It is well that you should form in your own mind the regular course to follow in such cases, and avoid the unfortunate way of answering your inquirer, the fond mother or nurse, by saying, "try this," or "try that." It should not be a matter of trial.

Let me say now that milk should form the basis of all preparations of food. It is not necessary for me to show you the difference between cow's and mother's milk. I will refer you to your physiological tables, and also, those of you who read the medical journals of the day, to the interesting investigations of Prof. Leeds and Dr. A. V. Meigs, who have studied this matter with great care.

There have been several ways suggested of preparing the food for infants; one, taking mothers' milk as a guide, and endeavoring to make cow's milk approach the human standard as near as possible by dilution and the addition of sugar of milk. For this purpose Dr. Meigs has suggested the following formula: Order five or six packages of milk sugar, containing seventeen and three-quarter drachms each; the contents of one of these to be dissolved in a pint of water, and each time the child is to be fed let there be mixed together and then warmed three tablespoonfuls of the sugar solution, two of lime water, two of cream and one of milk. This makes about a gill, and as much of it as the child does not take should be thrown out and a fresh mixture made for the next feeding. The solution of sugar should be kept in a cool place and at once thrown away if it sours, as occurs if kept more than a day or two in warm weather. The dry sugar keeps indefinitely, and is easily dissolved in warm water. A pint bottle should be kept for the purpose of containing the solution, to serve also as a measure of the quantity of water to be used with each package dissolved, and also to save further measuring. The milk to be used should be good ordinary cow's milk, and not the very rich milk of Jersey or other high-bred stock, and the cream in the same way should be such as is usually sold in the cities, and not too rich, containing about sixteen or seventeen per cent. of fat. The quantity of this food taken by a new-born infant should be two or three fluid ounces every two hours, and if it thrives it will soon take as much as a gill every two hours.

Then there are the various preparations in the market of the cereals proper, whose use I shall tell you more of in a few moments, and those of the cereals that have undergone change into dextrine and glucose by

malting, and those foods which are composed of milk, either preserved, condensed or prepared in a more solid form. These preparations are expensive, not to be procured in every drug store, and furthermore are somewhat perishable, so I shall talk to you to-day of the "home-made" foods, to which I advise you to adhere for a time.

Let us suppose that you are confronted with a case in which the mother, having nursed her child for some months, finds her milk gone, and it becomes necessary to establish hand-feeding. She tells you that her child no longer receives the amount of nourishment that it should. Convince yourself of this fact before you make any change; take the appearance of child into consideration, examine its muscles to see if they are firm, and judge whether or not it presents a rosy hue of health. Examine the mother's breast, and if you think that a course of tonics, with outdoor exercise or change of food, will increase the supply, by all means have recourse to them before making a change. Remember that the milk does not always remain constantly in the mother's breast, and that frequently those who are able to nourish their children with an abundant supply have, between nursing hours, scarcely any evidence of milk whatever; the application of the child will, however, produce a flow in a few moments.

I give you all these points because frequently mothers wish to wean their children too young, and I firmly believe that encouragement and firmness on the part of the doctor will in very many cases give a child a far better chance in after life. If the child is six months old, or thereabouts, and you find it necessary to establish hand-feeding at once, the following would probably be the best plan to adopt: Order nurse or mother to take a quart of morning's milk which is pure and fresh—better than not from a mixed dairy—and dilute with a half of a pint of water; put on to boil; take of Robinson's prepared barley, which comes in packages, a heaping desertspoonful or tablespoonful; rub this to an even paste with a small quantity of milk; then add to it the milk that is boiling, and stir this for twenty to thirty minutes, letting it boil. This should be strained, and a small quantity, say a teaspoonful, of white sugar added to it, the whole to be placed in the refrigerator for the day. When cool a jelly will be formed. Of this the child should take about four ounces, made fluid by heating, and strained in bottle or by spoon, every three or four hours. The last feeding would for a time be about ten o'clock in the evening; after a few months the child will need nothing after usual bed-time until first meal in the morning, at about seven o'clock.

Barley flour seems to hold a position somewhat neutral as regards action on the intestinal tract. Should the bowels become constipated, or should you desire to change the food, a preparation of oatmeal known as "Bethlehem Oatmeal," can be used in the same way as the prepared barley. The wheat foods may be used in the same way; they are apt to constipate, however.



At times it may be well in preparing the food to mix these various articles, as a child needs a variety in taste as well as a grown person. If a child is younger than six months, of course it will be necessary to add a larger percentage of water and a smaller amount of cereal. I am satisfied, from investigations made last year ("Some Observations on the Salivary Digestion of Starch by Infants." Trans., College of Physicians, Third Series, Vol. VI.), that infants are able in some degree to digest a small quantity of starchy food, and that the starch contained in the above described preparation is not merely useful in preventing the formation of a heavy curd, but that it is also useful in nutrition. I have found the preparation that I have suggested to you applicable in the majority of cases, and especially in those children who are apt to suffer from indigestion, during the summer season, with its unfortunate results. It is also useful when gradual weaning is thought advisable. In such cases the child is nursed from the mother in the early morning; after its bath, say ten A.M., it is to take its bottle or cup of food; nurse again at one or two, a cup of food at six, and again nurse at ten in the evening. As far as condensed milk is concerned, I am satisfied that it is an extremely valuable preparation, but not one upon which it should be attempted to raise a child. It is useful as a bridge to tide over difficulties, and as such can be relied upon, but a child that is brought up on condensed milk alone from an early period is, in my experience, liable to succumb more rapidly to the influence of disorders than other children, either nursed or fed with cow's milk, are able to withstand. Prejudice has frequently interfered with the use of condensed milk, I regret to say. It is certainly nutritious and easy of digestion, and frequently will agree, when properly administered, with a child whose stomach is intolerant of other food. Of the purity of the brand usually used there is no question, and I would advise you to study this matter yourselves, and not throw away a valuable food because many statements are made against it.

It is easy enough to find some form of diet that will nourish a healthy child. The most difficult problem to solve is the food to be administered to an infant who is delicate from birth and cannot nurse, one who is suffering from some form of intestinal catarrh, or one whose digestion has been totally upset by a severe attack of summer complaint.

These are, in fact, the most difficult cases that we have to deal with. In treating such cases we should bear in mind that a child's food should not be made so extremely weak, in order to avoid all irritating qualities, as to make it fail in its object of supplying nutrition, but we must endeavor to make the child's digestive functions meet us half-way, and thereby establish an equilibrium; we can either do this by the administration of those drugs which are known to facilitate digestion, such as the various forms of pepsine or pancreatine, as the case demands, or we should endeavor by tonic influences to bring about a healthy establishment of the functions of those organs whose secretions are needed for the proper digestion of food.

If a child is so weak and exhausted that it will not digest the mildest form of prepared food, and it is impossible to obtain breast milk, for this should be our first thought, it is useless to weaken the condensed milk, or whatever we use, to such a degree as to make it absolutely valueless as a nutrient; the proper thing to do under such circumstances is, in my opinion, to give some form of food which requires but little action of the digestive juices, or to prepare the food so that it is partially digested beforehand.

I have used for some time, with great advantage, egg albumen dissolved in water, as a food for sick children when the stomach was intolerant of ordinary milk food; also, gum arabic water will nourish for a surprisingly long time, and allay irritability.

The barley food, as recommended above, would be valueless in a case of this kind, and pure cow's milk, diluted to resemble as closely as possible the mother's milk, would be regurgitated. In such cases, and they are very frequent in the summer months, especially if you are called much in consultation practice, the preparation of milk which has undergone partial digestion by the pancreatic ferment, in an alkaline condition, I have found most useful. The preparation is one which must be made with care, and according to the following directions: Into a clean quart bottle put a powder of five grains of extractum pancreatis and fifteen grains of bicarbonate of soda, and a gill of water; shake; then add a pint of fresh milk. Place the bottle in a pitcher of hot water, or set the bottle aside in a warm place for an hour or an hour and a half, to keep the milk warm; by this time the milk will become peptonized. When the contents of the bottle acquire a grayish yellow color and a slightly bitter taste, then the milk is thoroughly peptonised; that is to say, that the caseine of the milk has been digested into peptone. Great heat or cold will destroy this digestive action, so, to prevent all further action, when you think that the digestion has progressed far enough, at once place the bottle of peptonised milk on ice, or into a vessel of boiling water long enough to scald its contents; it may then be kept like ordinary milk.

I have found from experience that it will be objectionable to the child if the bitter taste is at all well marked; the mother, who should receive your instructions, should be warned to frequently taste the milk during its digestion, and as soon as the bitter taste is the *least* apparent, the bottle should be placed on the ice for cooling and use, as in these instances it is sufficient to partially peptonise the milk.

I mention these facts particularly, as, strange to say, I have always failed with it in hospital practice, whereas in private practice I have had some excellent results, owing, I think, to extra care in its preparation.

*Whey* is another admirable alternative in these cases; it can be made in the usual way by rennet, and afterward sweetened slightly and given to the child cold or warm, as it prefers, in the same manner as ordinary bottle feeding; it may be made with wine and

given when there is great weakness, being both nourishment and stimulant. Mothers do not often know how to make wine whey; the proper method is to put the milk to boil, and when boiling put a wine-glassful of sherry, say to the pint, into it. If the curd does not separate, add more wine until it does, and as soon as you notice separation of the curd taking place add no more wine, but let the mixture boil for a time, until the whey and curd have been thoroughly separated, consuming about five minutes. This should be then thoroughly strained. It has been recommended to use lime-water in the feeding of infants and young children. I am opposed to its indiscriminate use. I have seen children who could not tolerate even the ordinary weak preparation of the Pharmacopœia. Undoubtedly at times it may arrest vomiting, as we all know, both in children and adult practice, but I much prefer, when it is necessary to use an alkali—and if you use cow's milk raw for a young babe, it is always advisable to see that it is made alkaline—to do it with a small quantity of bicarbonate of soda.

The food which I have recommended to you above for the weaning of children I am sure that you will find it work satisfactorily, especially in large cities, where the milk supply is so apt not to be reliable, and on that account so difficult to keep sweet without boiling. I have one word of caution to give you in regard to the use of nursing bottles. They are certainly useful as labor-saving machines in early infancy, and when thoroughly cleaned and carefully watched are no doubt indispensable; but I have long since come to the conclusion that, if you can persuade the mother and nurse to take the time and have the patience to feed a child that is old enough to manage by the cup or spoon, the word *colic* will seldom meet you in your practice. I am convinced that in institutions for foundlings, if it could be possible to discard the bottle, the percentage of death would be very much diminished.—*Archives of Pediatrics*.

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ORIGINAL CORRESPONDENCE.

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DALLAS, TEXAS, March 8, 1884.

DEAR DOCTOR GAILLARD: I have obtained the method of Kocher, of Berne, by which, it is claimed, a cat-gut ligature superior to any now in use can be prepared. It is as follows (as given by Dr. Pilcher): "Place the cat-gut in the oil of juniper for twenty-four hours, then in alcohol, 95 per cent., for preservation. When wanted for use it can be immersed in a solution of carbolic acid 1 to 20." Dr. R. Weir, of your city, if I remember aright, recently stated that it was best to keep it in the oil of juniper and not transfer to alcohol.

Truly yours,

HENRY K. LEAKE.

## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—Ed.]

## NEW YORK ACADEMY OF MEDICINE.

## THE HISTORICAL DEBATE ON PUERPERAL FEVER.

Commencing December 6th, 1883, there were papers presented and discussions held on the above subject, which may justly be termed historical in interest and value. Instead of publishing these, as the weekly medical journals did, in a fragmentary and disjointed manner, from week to week, the whole of the Proceedings of several meetings were collected, and are now published entire. The value of such a publication needs no description, and these valuable Proceedings are now presented with much pleasure.

The routine business being over, Dr. T. Gaillard Thomas said.—At a time when a flood of literature pours in upon the practitioner of medicine from numberless sources, upon every conceivable subject connected with his calling; when original ideas are spread out over space as gold-beaters hammer foil; and when the changes are rung upon every meritorious essay by a host of others which offer the reader merely the same thoughts in different words—it is pertinent and justifiable for every member of this audience to demand the motive, or, as our Gallic neighbors would express it, “the *raison d'être*,” of a paper upon so trite a subject as the present, and one which has already received the attention of many of the brightest intellects devoted to obstetrics.

I accept this challenge to-night, and, before beginning my essay, shall strive to justify, if I can, its preparation. I freely confess that it contains nothing that is original, nothing which has not elsewhere been as fully and as clearly stated, nothing which has not already received careful consideration at the hands of the progressive obstetricians of the world. And yet I am not only emboldened to present it, but even to hope that it may be regarded as worthy of the attention of those who listen to its reading to-night, and that, in its dissemination among many in this country in whose medical pupilage I have taken part, it may accomplish good.

The plan of treatment for that hydra-headed monster styled puerperal fever, which I shall advocate, has nowhere, so far as my knowledge extends, been fully elaborated in any one essay, and carefully systematized; the various portions of the plan are not yet even generally accepted as orthodox; and many appear at this late date to have paid little attention to them in practice, even if they have seen them in print.

In support of these assertions I will refer to these two facts. In the year 1879, at a session of the American Gynecological Society in Baltimore, the question of intra-uterine antiseptic injection for the cure of puerperal septicæmia came up for discussion. It received very qualified approval, and, with one exception, if my memory serves me right, I stood alone in its strong and uncompromising advocacy. About a year ago I related, in a society of this city, the history of a bad case of puerperal septicæmia which was, beyond question, saved by the persistent and bold use of intra-uterine injections. This very desultory report was published in some of the medical journals of this city, and after its appearance I received a half-dozen letters from men at a distance in this country, asking how the injections were made, and other questions showing so great a want of familiarity with this valuable method that

I became convinced that still another exposition of its merits might prove well-timed and useful.

Lastly, I would state that I was, if not the first, at least among the very first, who adopted the use of intra-uterine injections and cutaneous refrigeration, in the very inception of both plans in this country; that I have since then never ceased to urge them as valuable resources upon the numerous practitioners with whom I come in daily contact, as teacher, consultant, and associate; and that, for this reason, I trust my large experience in and present estimate of these methods may prove of some value.

Of all the great benefits which have, within the past quarter of a century, been conferred by the advancing science of medicine, in my opinion, none has been more important and more signal than that relating to the prevention and the cure of the febrile conditions incident to the puerperium. Even before the new era which has recently dawned upon this subject, the personal communicability of these dangerous affections was fully recognized, but it was left for the establishment of the germ theory of disease to render their extreme contagiousness fully appreciated; to impress the facts that, with proper precautions, prevention was within the range of possibility, and that treatment based upon the knowledge thus given us might be made effective, and, to a great degree, certain.

Ever since the days of Hippocrates, pathologists have striven earnestly to elucidate the phenomena of those diseases which developed in consequence of the process of parturition, and produced such lamentable results. Over two thousand years have elapsed since that time, and only now have we passed "out of the darkness into the light" in reference to the matter, for now it does really appear that we are beginning to understand the pathology of that group of affections styled puerperal fever. The views which were, during this long period, at various times advocated and more or less generally adopted, are thus enumerated by Hervieux\* in his masterly and exhaustive treatise upon this subject:

The doctrine of suppression of the lochia; the doctrine of metastasis of the milk; the doctrine of inflammation of the uterus and peritonæum; the doctrine of a specific puerperal fever; the doctrine of uterine wounds as we have one after an amputation; the doctrine of a multiplicity of puerperal affections grouped under one common name; the doctrine of puerperal blood-poisoning.

Let us pause here and review the features in the condition of the puerperal woman which render her a prey to so many and dangerous disorders which spring up as consequences of utero-gestation and of parturition.

In the first place, her blood is in a condition of hyperinosis—that is to say, it contains a great excess of fibrin. If it be drawn by the lancet, it presents the buffy coat, upon which our forefathers laid so much stress, in the most marked degree, and from this arise two liabilities—first, a tendency in such blood to form thromboses in the heart and the bloodvessels, and, second, a tendency to prove a most prolific ground for the development of sepsis and zymosis. Measles, scarlatina, and varioloid, which give no very bad prognoses when they excite zymosis in the blood of the non-pregnant woman, commonly produce death when they act upon the blood of pregnancy.

Then the nervous system is in a plus state of sensitiveness and excitability and influences which are very controllable in the non-*puerperal* state produce very evil results here. For example, an accumulation of urinary poisons in the blood produces convulsions; an untoward moral influence produces violent mania; and crude ingesta result in severe spasmodic affections in the alimentary canal which, in the same woman when not pregnant, would scarcely have attracted attention.

The local conditions which result from parturition are even more striking.

\* "Traité clin. et prat. des mal. puerpérales," Paris, 1870.

The uterus and other pelvic viscera are, at full term, as fully supplied by lymphatics and lymphatic glands as is shown in this diagram;\* and the arteries, veins, nerves, and other tissues of that organ, the vagina, the uterine ligaments, and the peritonæum have all undergone a rapid physiological hypertrophy, which permits of an organ only three inches in length ascending so as to touch the ensiform cartilage.

The uterus about the 280th day of gestation contracts and expels the child; then the placenta and membranes; and then closes its emptied cavity, and rests. Let us suppose that in forty-eight hours after delivery a primipara dies of pneumonia, and that we are allowed to lay open the genital tract and examine it from the fundus uteri downward. Outside all looks well; the uterus is merely much larger than in the non-pregnant state. Within, it presents a very different appearance; the whole endometrium, covered over by the greyish, sloughy-looking decidua vera, presents all over its surface an unhealthy, unclean, and diphtheritic look, although free from exudation. Here and there shreds of membrane, consisting of small portions of the decidua reflexa, which had become adherent, appear partially detached and somewhat decomposed. At one point the large placental site is seen, raw, irregular, and covered over by minute traces of the placenta and small bloodclots which close the mouths of the uterine sinuses. The odor of the opened uterine cavity, the walls of which are thus covered, is disagreeable. The substances mentioned have for forty-eight hours been dislodging themselves and mingling with the pinkish fluid which pours like an unhealthy sweat from the placental site constitute what is called the cleansings, or lochial discharge. Upon examining the cervix uteri, we find two or three small rents which pass through the mucous lining and involve to a varying depth the sub-lying parenchyma. In consequence of these injuries, and of absorption through them of the lochial discharge already mentioned, the cervix is swollen and œdematous. As we examine the vagina it will be found that the great distension impressed upon it by the head of the child in its passage to the vulva has in two or three places caused a superficial rupture of the mucous lining of this canal.

We now arrive at the vulva, and here we find several solutions of continuity which have been effected by the escaping head. The fourchette has been torn through, and this rent has extended through a small portion of the perinæum, and one or two small fissures have occurred in the mucous membrane covering over the ostium vaginæ.

Were we to take some of the lochial discharge from the vagina, after the atmosphere has acted upon it, and, abrading the inside of the finger with a lancet so that it bleeds slightly, apply this freely to the denuded surface, and allow it to become dry there, its irritating character would soon become evidenced by a burning sensation in the part, a smarting extending up the hand, and on the next day signs of a slight local inflammation, with a little lymphangitis, would be noticed. This would probably last only two or three days—merely long enough to demonstrate the fact that the fluid is an irritating one, but not sufficiently poisonous to cause erysipelas or severe angeioleucitis.

The natural history of the ordinary local results of human parturition is given in the foregoing sketch. In every case of child-bearing the endometrium is thus incumbered and freed by a process of exfoliation and sloughing; in every case the cervix, vaginal mucous membrane, perinæum, and vulva are, in varying degrees, lacerated; and in every case the offensive fluid, called lochia, poisons these freshly made, unprotected wounds. And yet what are the usual results? Recovery, uniformly, I might say universally, unless some unusual occurrence manifests itself to prevent this happy consummation!

Theorizing about the matter, one would suppose that the mortality resulting

\* Here Dr. Thomas showed diagrams.

from such a state of things must be excessive. Here we have a number of recent wounds constantly and unavoidably bathed with a fluid made up of dead and decaying animal tissue in a woman whose blood and nerve states are, with reference to septic disease, like flax prepared for the spark, and who is exhausted by pain, anxiety, loss of blood, and deprivation of sleep. Can one point to any concatenation of circumstances better calculated to insure a bad result? And yet the facts are these: only about one or two in every one hundred parturient women ordinarily die when properly cared for during labor, even in public hospitals.\*

Recovery, then, is the very general rule after normal parturition; death the very rare exception. But now and then all this is changed. Some ferment or specific poison gains access to the genital canal and acts as rapidly and as decidedly as a little yeast added to dough. In the latter case, active and immediate fermentation affects the whole mass; in the former a set of striking, alarming, and often fatal phenomena occur, which spread dismay through the lying-in chamber and give an entirely new complexion to the progress of the case. The fact that this unfortunate occurrence has taken place will usually announce itself to the attending physician in this way. He leaves his patient on the morning of the third day cheerful, happy, free from pain, with a pulse of 85, and a temperature of 99°. He is called to her in the latter part of that day and finds that she has had a slight, perhaps a scarcely perceptible, chill; that some pelvic pain has followed it; that the lochia have ceased; that the milk which was just showing itself has disappeared; that a severe headache exists; that a look of indescribable anxiety has replaced the happy expression of the morning; that the pulse rate is 130 to the minute, and that the buccal temperature is 104°.

A poisonous element has by some method or other reached the genital tract, as fruitful a field for its activity as a mass of dough is for yeast, and the result is already manifesting itself. Let us suppose that the patient's medical attendant lays the flattering unction to his soul that all this is due to "malaria;" or that he soothes his troubled mind with the hope that it is "milk fever;" or that, recognizing the attack as one of "puerperal septicæmia," or "blood-poisoning of child-bed," the first link in that terrible chain called puerperal fever, he relies upon medicines given by the mouth or rectum, what is usually the course shown as the natural one of the affection? Within a week, or thereabouts, for there is no rule as to this point, parenchymatous metritis, lymphangitis, lymphadenitis, phlebitis, cellulitis, or peritonitis will very probably develop itself, and what was originally merely a septicæmia will merge into one of these affections, and the patient will pass through the perils attendant upon whichever of these pathological states manifests itself as a consequence of the initial lesion.

Sometimes the septic disorder develops puerperal mania, while at other times a septic pleuritis, endocarditis, pneumonitis, pericarditis, or meningitis follows the systemic poisoning, the lymphatics emptying their deadly contents into the thoracic duct, and thus transferring them into the subclavian vein, as Lusk clearly points out. At other times the condition continues one of true and uncomplicated septicæmia to the end, death occurring from coma, or the patient succumbing to exhaustion from hyperpyrexia, which lasts for weeks. What was originally septicæmia, however, as a rule rarely remains so, but generally passes into some other disorder, and very generally into peritonitis, before a fatal termination occurs.

And now comes naturally the question, What is the pathology of that affection styled puerperal fever? An inquiry into the views which prevail among others would evidently require more time than I can possibly allot to it to-night; and yet I am desirous that my answer, even if very short, shall be so clear, suc-

\* Tarnier, "Report of Maternité Hospital," Paris.

cinct, and simple, as to convey perfectly the opinion which a practice of thirty years has impressed upon my own mind concerning a subject which has always deeply interested me, and in connection with which I have had abundant opportunity for study, both at the bedside and in the dead-house.

My observations have led me to adopt the views of those who believe that *puerperal fever is puerperal septicæmia*. It matters not whether it assume the form of metritis, phlebitis, cellulitis, peritonitis, or lymphangitis, the essence of the disorder is a poison, which is absorbed into the blood of the parturient woman through some solution of continuity, and which, in the appropriate soil of the puerperal condition, fructifies and produces the result known in its *ensemble* of pathological phenomena as puerperal fever. From my standpoint, the matter is well stated by Lusk\* when he declares that "it has now passed beyond the domain of dispute that puerperal fever is an infectious disease, due, as a rule, to the septic inoculation of the wounds which result from the separation of the decidua and the passage of the child through the genital canal in the act of parturition."

As early as 1870, Hervieux, in his work on the diseases of child-bed, already alluded to, expressed himself upon this point in the following words: "Here I stand; if what I have said does not carry conviction of the truth of my doctrine, fuller explanation will fail to do so. I believe in the multiplicity of puerperal diseases. I believe in puerperal poisoning as the source of them. Here, in few words, my creed is presented."

In 1877 the Berlin Obstetrical Society appointed a committee on puerperal fever, consisting of Schroeder, Lœhlein, A. Martin, Fasbender, and Boehr—men whose names are sufficient to command attention, even if their words fail to carry conviction. In its report this committee expresses its views thus:† "Under the names 'puerperal fever,' 'malignant child-bed fever,' are included a group of diseases occurring in child-bed which vary very greatly in their manifestations, but have this in common, that they are called into being by the absorption from the organs of generation of a material which gives rise to destructive inflammation and fever. There are, indeed, a number of substances, mainly composed of organic materials in a state of putrid decomposition, which, when brought into contact with an open wound, set up inflammation in it, which extends to the neighboring tissues; a further absorption by the lymphatics and bloodvessels leads to more extensive inflammation among neighboring and remote organs; and, when a large quantity is rapidly absorbed into the blood, a quickly fatal poisoning of the whole organism occurs. To surgeons the deadly effect of these materials upon wounds is only too well known, and the greatest advance, probably, which surgery has ever made consists in the so-called antiseptic method of treating wounds—that is, in the scrupulously exact removal of such materials from fresh wounds.

"Puerperal fever is indeed nothing else than the infecting of fresh wounds, such as are found in every newly-delivered woman, with these destructive septic materials. Almost every woman, after labor, has small wounds on the external genital organs, which are caused by the passage of the child through this narrow opening, and in every newly-delivered woman the inner surface of the uterus, from which the protecting membrane has been cast off with the ovum, presents a large wound surface. Thus, every newly-delivered woman is liable to suffer from the dreaded infective wound disease, which, in persons wounded under other circumstances, are called pyæmia, septicæmia, wound-fever, blood-poisoning, purulent infection, etc., *so soon as suitable septic materials are brought into contact with the genital organs.*"

\* "Midwifery," p. 608.

† "Report of Puerperal Fever Committee of Berlin Obstetrical Society," December 4, 1877, p. 9.



And now a few words upon the nomenclature of this disease, which for so long has been known under the names of puerperal fever, child-bed fever, lying-in fever, and the names of the various special affections which develop in its course—phlebitis, lymphangitis, etc. Of late an effort has been made, which I think has emanated from that school of obstetrics which has shed so much lustre upon our art, and enriched with so many eminent names the obstetric register of the world—the Dublin school. By members of this it has been urged that the name metria should supplant that of puerperal fever.

I for one sincerely trust that the suggestion will never be adopted. In what is the new name better than the old and faulty term? Does it convey any more accurate pathological facts to the minds of the student? Does metria exclude any chance of error as to pathology, or advance the clearness of understanding in anywise? I think not. Of the two terms it appears to me that, while both are objectionable, metria is the more so.

On the other hand, puerperal septicæmia conveys to the student and to the practitioner a clear and definite idea, which appears to be in consonance with the truth as taught us by modern pathology. In spite of the fact that important complications commonly result from the initial lesion, it appears to me that the influence of this is so paramount that its title should be adopted in spite of the fact that it is far from being absolutely perfect.

I should willingly, for the present, accept the reservation offered by Dr. Robert Barnes,\* when he says: "I would propose that the word should not assume that a distinct, specific poison, or sepsis alone, is concerned, but that it should be used comprehensively as a general term, implying that the blood of the puerpera is empoisoned;" and this although I do believe in the existence of a specific poison, which is the great factor, as surely as I believe in such a factor in the production of typhus or variola.

What is the nature of this subtle and deadly poison, which, entering like a ferment into the genital canal of the puerperal woman whose blood is hyperinosed, whose nerves are in a condition of hyperæsthesia, whose utero-placental vessels are partially open, whose cervix uteri, vagina, and vulva are covered with fresh superficial wounds, and whose womb is pouring slowly forth a fluid composed of dead tissue, decomposed blood, and recently exfoliated cells, gives rise to so much disturbance? What do we know of the poison? what is its natural history? what encourages its life? and what kills it, or cripples its activity?

Unfortunately, these questions cannot to-day be satisfactorily answered; but have such questions been any more satisfactorily answered with reference to scarlatina, measles, and varicella? German pathologists have proved that the presence of micrococci, more especially of the round bacteria, occurs so frequently in the pathological products of puerperal diseases as to lead to the conviction that they are important factors in reference to them; but this point, like many others connected with the influence of bacteria as morbid agents, is yet too unsettled for admission into a practical treatise like the present.† Inquiry into the matter is now being pushed with vigor in the laboratories of France and Germany, and we have, according to recent reports, a fair prospect of valuable and practical results.

But, even although we do not at present know the exact nature of the poison which proves the disturbing element in these cases, we surely know that some such toxic agent exists, and it behooves us to learn how to prevent its entrance into the genital tract, and how best to destroy its life or its activity, if it should gain admission in spite of our care and watchfulness.

Whatever be the character of this agent, we know that there are *two, and*

\* Lecture in *Am. Jour. of Obstetrics*, January, 1882.

† In reference to this part of our subject I would refer those interested to the chapter upon it by Professor Lusk, in his masterly book upon the "Science and Art of Midwifery."

only two, methods by which it can reach the parturient tract and exert its baneful influence. First, it may be carried to the vulva and into the vagina through the open orifice of that canal by the atmosphere, in which it floats as an impalpable substance; and, second, it may be carried to any part of the genital tract by the fingers of doctor or nurse; by towels or cloths laid against the vulva; by sponges used in washing; by instruments used in the delivery of the child, drawing of urine, or injecting the vagina; and from the bed-clothing and body-clothing of the patient which are in immediate contact with the sexual organs.

As this paper is already assuming proportions greater than those which I originally prescribed for it, I shall deal with this part of my subject rather dogmatically, offering a number of propositions which will embody in a few sentences what would otherwise demand a great deal of space for its enunciation. I shall address my remarks chiefly to the management of cases of midwifery occurring in private practice, as the walls of the hospitals have long been subjected to systematic rules, while my observation in the capacity of consulting physician positively convinces me that in private practice, even among the wealthy who can command every safeguard and procure every luxury, there exists a want of system and an apathy as to preventive measures which border very closely upon criminality. To-day, when it is so generally agreed among the ablest obstetricians of the world that puerperal fever is the result of a special poison, and that prophylaxis against this is, by close attention to very simple details, perfectly practicable, it is the duty of every practitioner to guard his patient against danger by every means in his power. If he accept the views which this paper adopts, his duty is clear; it is equally incumbent upon him to give his patient the benefit of the doubt if he reject them.

PROPHYLACTIC MEASURES WHICH SHOULD BE ADOPTED IN ALL MIDWIFERY CASES, WHETHER THEY OCCUR IN HOSPITAL OR IN PRIVATE PRACTICE:

1. The room in which the confinement is to take place should have the floor, walls and furniture thoroughly washed with a ten-per-cent. solution of carbolic acid or mercuric bichloride, 1 to 1,000, and the bedstead and mattresses should be sponged with the same solution. Curtains, carpets, and upholstered furniture should be dispensed with as far as possible.

2. The nurse and physician should take care that all their clothing, both under and upper, be clean and free from exposure to the effluvia of any septic affection. Should either of them have been exposed within a fortnight to the effluvia of such affections as scarlet fever, typhus, erysipelas, septicæmia, or the like, they should change every article of clothing and bathe the entire body, especially the hair and beard, with a reliable antiseptic solution; that which I prefer for this purpose is a saturated solution of boric acid.

3. As labor sets in, the nurse, having thoroughly washed her hands, and cleaned her nails with a stiff nail-brush, and soaked them in antiseptic fluid, should administer to the patient a warm vaginal injection of antiseptic character; bathe the vulva and surrounding parts freely with the same; repeat this every four hours during labor; and keep a napkin, wrung out of the warm antiseptic fluid, over the genital organs until the birth of the child.

4. Before assuming the functions of their respective offices at the moment of labor, both doctor and nurse should wash the hands thoroughly with soap and water, scrub the nails with a stiff nail-brush, and soak the hands for several minutes in a bichloride solution, 1 to 1,000.

5. The first two stages of the labor having been accomplished, the third stage should be efficiently produced; all portions of placenta and membranes removed; and ergot administered, in moderate doses, three times a day, and kept

up for at least a week, for the complete closure of the uterine cavity, expulsion of clots, and occlusion of the utero-placental vessels.

6. The doctor, taking nothing for granted, not satisfying himself with a vague report of the nurse, should, at the conclusion of the labor, carefully examine the vulva of the patient. If the perinæum be lacerated, it should be closed at once by suture, to shut up this avenue to septic absorption; and, should slight solutions of continuity be found in the labia or the vulvar extremity of the vagina, these should be dried by pressure of a linen cloth, touched with equal parts of sol. ferri persulph. and carbolic acid, again dried thoroughly by pressure with the cloth, and then painted over with gutta-percha collodion. If this be thoroughly done, absorption will be prevented at these points for at least three or four days, when the application may be repeated.

7. In six or eight hours after the labor, when the patient has rested, the vagina should be syringed out with an antiseptic solution, and a suppository of cocoa butter, containing from three to five grains of iodoform, should be placed within it, under the os uteri. A syringe with intermittent jet should be used, which will wash away with gentle force all blood-clots, and reliance should not be placed upon the feeble drip of the fountain syringe, the advantages of which are, I think, entirely theoretical.

8. These vaginal injections and suppositories should, in cases of normal labor, be repeated every eight hours; in cases of difficult or instrumental labors, twice as often; and they should be kept up for at least ten days, the nurse observing to the last the precaution already mentioned of washing her hands before every approach to the genital tract of the patient.

9. When catheterization becomes necessary, it is safer to employ a new gum-elastic catheter, which before use should be thoroughly immersed in antiseptic fluid, and which should be destroyed at the conclusion of the case, rather than to trust to the nurse's cleansing of an old silver instrument which bears within it the register of a list of cases of septicæmia in which she has employed it during the past two or three years. It is a very common and very bad habit for nurses to own silver catheters, which they carry about with them from case to case of midwifery.

10. Last, but by no means least, let the physician inform himself by personal observation as to the competency of the nurse to syringe out the vagina thoroughly; to place the antiseptic suppositories just where they should be, and to use the catheter without injury to the patient. Neglect of this precaution has frequently resulted in leaving a fœtid upper segment of the vagina entirely unwashed, while the antiseptic stream was limited to the lower third of the canal.

In a case in which I had performed anterior colporrhaphy and perineorrhaphy at the same time, in private practice, I was forced to withdraw my sutures and sacrifice the operations on account of a sudden rise of temperature to 105°. As I had become alarmed about the patient, I then used the syringe myself, and, to my great surprise and regret, found the upper portion of the vaginal canal filled with a decomposed mass of blood, which the constant but inefficient injections of the nurse had failed to remove.

Even if every suggestion made here be faithfully followed out in every case of labor which one attends in private practice, the trouble involved in the plan will not be great; and it will fall into utter insignificance when measured with the great comfort which will come to the mind of the obstetrician from the reflection that he has fully done his duty in exerting himself to the utmost to protect the vital interests which have been intrusted to his care. This feeling, which would be pleasant if no untoward event occurred, would be tenfold more so if a fatal issue should give rise to the painful inquiry as to his having fully acquitted himself of his duty in respect to prophylaxis. In the past this unpleasant question has not been often raised, but, as society at large becomes

more thoroughly informed upon the prolific subject of the germ theory of disease, it appears to me that he will stand firmest who can point to a clear record of strict attention to preventive medicine.

It is clear that all this will make of the process of parturition in the future a more important event than it has been regarded in the past, and she who is about to bring forth will be treated as one about to go through the perils of a capital operation. This is just what I think ought to take place, and, when it does so, thousands of valuable lives which are now lost will be saved, and thousands of desolate households will be spared the sorrow of losing their female heads.

I am fully aware that, at the conclusion of this paper, more than one speaker will arise and declare that his experience of many years of large midwifery practice, with scarcely any deaths, convinces him that all these precautions are unnecessary, that the process of parturition must have changed its character, or that this magnifying the perils of a simple physiological process is a work of pure supererogation, which will have its day, and then for ever pass away. I will simply say in advance to these speakers that I don't agree with them, and then quote the language of the Puerperal Fever Committee of the Berlin Obstetrical Society, in pressing the preventive measures of antiseptic surgery upon the Prussian Government:

\* " We shall not attempt to portray, from a humanitarian point of view, the anguish which falls upon the numerous families, where the wife and mother, who but just now was radiant with the full bloom of health, has been carried off, just as the family has been increased by a new member, still utterly helpless and dependent upon a mother's care; nor shall we point out what injury is done to the national life of the state by the yearly death of thousands of mothers, and the ruin of thousands of families caused thereby. We may fitly compare the manner in which puerperal fever finds its victims in a definite class of persons with the losses which are entailed by a great war. Just as, in the latter case, the losses fall exclusively upon the young and vigorous male population, *so in the former is the most valuable part of our female youth carried off by puerperal fever*; nay, more, the loss which the family and the State suffer in consequence of puerperal fever is more acutely felt than that which in general accompanies war, because the latter concerns usually the unmarried and only just full-grown young men. The loss of an entire battalion of Landwehr is the only one which can be fittingly compared, in the severity of its results and the intensity of distress which it causes, with the ruin which puerperal fever brings with it."

Before leaving this part of my subject, let me in the strongest manner record my protest against the use of intra-uterine injections as a prophylactic measure, except after very severe operations within the uterine cavity, which render the occurrence of septicæmia almost certain. As a preventive measure, to be uniformly adopted, I look upon it as to the last degree rash and reprehensible. The use of a dangerous remedy in combating the results of a dangerous disorder is always admissible, but a resort to a hazardous procedure for a condition in connection with which danger has not shown itself, and may not do so, should be viewed in quite a contrary light.

#### TREATMENT OF PUERPERAL SEPTICÆMIA.

Let us now suppose that, in spite of every precaution, the specific poison has gained entrance at one of the numerous door-ways left open in the genital tract between the vulva and the fundus uteri; what are the most reliable means now known to us for checking the advance of the septic disorders which are set up in consequence?

\* *Op. cit.*, p. 8.

But let me stop here, before answering the question just asked, and explain what I mean by the use of the term specific poison. I do not believe that there is, necessarily, any specific disease germ which gives rise to puerperal septicæmia! It is probably the same germ as that which is the source of septicæmia, phlebitis, and lymphangitis in the stump after an amputation, in the wound created by a compound fracture, or in the lacerated tract produced by a gunshot. But the pathological condition excited appears to me to be entirely different from that putrid absorption which results from the decomposition of a retained placenta, or a putrid mass of blood. Such decomposition produces a toxæmia, violent and dangerous it is true, but which disappears as soon as the offending mass is removed. That of the true puerperal disease at once, or almost at once, diseases the lymphatics and sets up an action which often proves uncontrollable. If the mere presence of decaying animal material in a uterus would produce puerperal septicæmia without the agency of a specific disease germ, we should surely have that affection developing in healthy country localities where the women are attended by ignorant midwives, but where, nevertheless, it is almost an unknown disorder.

"I," says Hervieux, "who write these lines, declare that in my own country I have within the space of three years attended one thousand cases of labor, and out of that number have lost only one patient!"

And now, in summing up what I esteem the most certain and the most rational treatment of the disease styled puerperal fever, I will be as concise as possible.

As soon as the patient is stricken by the poison, certain very marked phenomena usually develop themselves with great promptness. After a chill or a slight horripilation she is affected by a high temperature, pelvic pain, considerable mental perturbation, headache, pain in the back, and sometimes, though not commonly, by nausea and vomiting. We will assume, first, that the attack is a severe one in its inception; and, second, that the patient is in such a position in life that we are not in any way hampered in our efforts to save her by considerations of economy. Having considered treatment from these standpoints, it will, of course, be easy to modify the plan so as to meet the requirements of a mild attack or of a scanty purse.

As the practitioner sits by the bedside of his patient at the commencement of her attack, he is aware that there are points connected with its true pathology which he cannot yet determine. For example, he cannot say whether the case is going to assume the form of septicæmia lymphatica or septicæmia venosa; whether of perimetritis or parametritis; or whether thrombosis of some of the large pelvic or utero-ovarian vessels or a true parenchymatous metritis is to play the most active part in the siege which has begun. If he fritter away the golden moments in vague speculation; if he soothe his fears by hoping that the attack is due to malaria, or milk fever; or, if he cast aside the rational doctrines of to-day in favor of the idea of a general infectious and particular form of disease called by the forefathers of the French school *la fièvre des femmes en couche*, time will be lost which can never be regained. If, on the other hand, he is encouraged by his clinical observation to stand with many of the best pathologists and practitioners of our time in the position assumed by Hervieux — "I believe in the multiplicity of the affections classed under the head of puerperal fever; I believe in puerperal poisoning as the source of them" — he will act at once and strike at the poison before it has fairly gained a foothold. In other words, if the physician could see into the future and learn with certainty that peritonitis, cellulitis, thrombosis, lymphangitis or true phlebitis is to be the final disorder, he should, if he reaches the case at the inception of the attack, follow, in my opinion, the course here formulated:

1. As soon as a diagnosis of septicæmia is determined upon, all pain,

nervous perturbation, shock and mental anxiety should be quieted by the hypodermic administration of ten minims of Magendie's solution of morphine, unless some special and very decided idiosyncrasy with reference to opium be ascertained to exist; and throughout the severity of the attack, whenever suffering of mind or body occurs (perhaps it will be about once in every six or eight hours), this should be repeated. In my experience, no other method of administering morphine in these particular cases compares with this, and, as it is not to be continued long, there is no fear of causing the patient to become addicted to the drug as a vice. If a small, sharp, and *new* needle be used, if it be thoroughly cleansed with soap and water before each time of using, and be dipped in a solution of bichloride, 1 to 1,000 of water, just before each insertion, no abscesses will occur. It is the large, rusty, unwashed, and unpurified needle, which the doctor's economy makes last him for many months, which so commonly results in them.

2. The physician must now decide whether, in his opinion, the septic disease which is developing has originated in the wounds situated between the os internum uteri and the vulva, or in the endometrium, above the former point. If he decide in favor of the former view, he should persist, for a time longer, in the more thorough use of vaginal injections; if of the latter, intra-uterine injections should be at once resorted to. Usually the question has to be decided by the efficacy or inefficacy of frequent germicide vaginal injections in bringing down the temperature and controlling other grave symptoms. Should a failure of these seem to prove that the origin of the disease is higher up the genital tract, more decided and radical measures must be taken.

The patient having been entirely relieved of pain and thoroughly quieted, the first injection should be practised in this way: An India-rubber cloth should quietly, without hurry, noise, or disturbance on the part of the nurse, be spread over the edge of the bed on which she lies, and made to fall into a tub of warm water rendered antiseptic by the addition of 2 or 2½ per cent. of carbolic acid, or of the bichloride of mercury, 1 to 2,000, or of some other reliable germicide. Then Chamberlain's glass uterine tube, which I here show, or the very excellent and ingenious tube invented by Dr. George H. Lyman, which is here seen, thoroughly fitted to a Davidson's or Higginson's syringe, should be immersed in the tub. The nurse now aiding the patient by the shoulders, and the doctor by the hips, she should be gently laid across the bed and be made comfortable with a pillow under the head. Each foot should rest upon a chair placed at either side of the tub, and she should be entirely covered over with a couple of blankets. The doctor, now placing himself between the knees of the patient, should take the tube in his right hand, while a stream of water is made to flow through it by the nurse, who squeezes the syringe bulb; and he should pass it gently up to the fundus of the uterus. The stream of water, which has been steadily flowing, is now projected with gentle force against the walls of the uterus, washing away adherent blood-clots, detaching portions of hanging membrane, and everywhere neutralizing the influence of the poison which has excited the disorder.

After the first injection, the position of the patient need not be disturbed, but the injections may be given as she lies upon a bed-pan.

In some cases, in which I have had reason to suspect that portions of the placenta or membranes have been retained, I have chloroformed the patient, passed the hand, rendered thoroughly aseptic, within the cavity, and very gently scraped off adherent masses from the uterine walls, using the nails as a curette, as Wilson, of Baltimore, has advised. In some other cases I have rubbed the whole endometrium with an aseptic sponge, held in a long sponge-holder, or employed the largest of my curettes, to remove clots and adherent secundines, with great apparent advantage.

That the use of antiseptic uterine injections after parturition is attended by danger, is beyond question. The greatest hazard attending this plan is the entrance of air into the uterine cavity; the next, the production or hæmorrhage by detaching some of the thrombi which fill the mouths of the uterine sinuses; the third, the danger of forcing the fluid used as an antiseptic directly into the general circulation, through the introduction of the tube into the mouth of a sinus; the fourth, the creation of convulsions, violent pain, or nervous prostration, by a sudden and baneful influence upon the nervous system; and the fifth, the passage of the tube into a Fallopian canal, and the injection of fluid directly into the peritoneal cavity, as in a case reported by Dr. W. Gill Wylie in an interesting paper in the *New York Medical Journal* for June 23, 1883, p. 679.

All these dangers may be, to a great extent, avoided by care as to details; by using a large injecting tube which cannot enter an open-mouthed sinus; by using water warmed to 105°; by injecting the fluid through the tube so as to exclude air before passing this up to the os uteri; by using only a moderate degree of force in throwing the jet against the uterine walls; and by proceeding with the whole affair gently, cautiously, slowly, and intelligently.

The tube should never be allowed to fill the os uteri completely, so as to prevent the escape of the injected fluid. Should the cervical canal be so narrow as to hug the tube closely, it should be dilated by dilators of hard rubber, by the fingers, or by Barnes's bags, before the injection is practised.

A solution of the persulphate of iron should always be at hand in case of sudden hæmorrhage from displacement of a thrombus. Should this accident occur, ergot should be immediately given hypodermically, the iron solution be at once added to the antiseptic solution and allowed to pass into the uterus, and pressure be made upon the fundus so as to stimulate the contraction of uterine fibre to accomplish closure of the open sinuses in that way.

Quite a number of cases of death from this plan of treatment are on record. In a very large experience with it I have met with but one. The whole number on record would, however, fall, I think, into insignificance if weighed in the balance against the many deaths which have been due to a neglect of the means, or against those lives which have been saved by it.

After all, the question as to the dangers attending a plan of treatment are not to be settled upon mere abstract reasoning. The evil which it is known to do must be weighed in one scale, and the good which it effects in another; and careful consideration must decide whether we are justified in accepting the former for the sake of the latter. Judged in this manner, I feel very sure that intra-uterine injections for puerperal septicæmia deserve a place among the most valuable resources for the saving of life for which we are indebted to modern pathology.

The frequency of these intra-uterine injections should vary greatly with individual cases. In mild cases of septicæmia, where the temperature comes readily down after the uterus has been washed out, and rises very slowly, they need only be used once in every five hours; in other cases they become necessary once in every three hours, and in bad cases they are required once every hour. These injections should always be administered by a physician, should always be carried fully up to the fundus uteri, and should always be used with every regard to caution as to detail which has been already mentioned.

Many prefer the use of those syringes which allow of a steady flow of a stream of water, propelled by gravitation, as is the case with the so-called fountain syringe, which is so popular among us. This is partly because greater safety is supposed to attach to these, and partly from a theory that danger attends the propulsion of a stream by intermittent jet against the uterine walls. For a number of years I shared this belief, but experience has taught me that a gentle projection of the fluid is an advantage, that by this means a more

thorough cleansing is accomplished, and that with due caution no more danger attends the plan than that by the steady flow.

Some have adopted continuous irrigation of the uterine cavity, but this is, I feel perfectly certain, a delusion and a snare. It gives the appearance of great thoroughness, which it does not possess, for the reason that by this plan it is very difficult to bring the germicide fluid into full contact with the entire endometrium. For vaginal irrigation it is an excellent method, but I have seen it allow the temperature to remain high when applied to the uterine cavity, and have replaced it by the intermittent douche, used only as often as every three hours, with striking results. Nevertheless, in very severe cases I prefer to employ continuous irrigation, replacing its use every third hour by that of the intermittent current; rather than exhaust my patient by half-hour disturbances and injections, as has been by some advised.

After all that has been said on this subject, the essential fact is this: that plan is best which accomplishes most perfectly the cleansing of the parturient canal. With ordinary precautions, danger need not necessarily attach to any method.

3. The uterus having now been thoroughly cleansed, and the patient entirely quieted, attention should be turned to controlling the temperature, which, in septicæmia of puerperal character, runs so high and maintains itself at so exalted a range as to constitute one of the immediate factors of a fatal issue. Even if this were not the case, the patient's strength is so much exhausted by prolonged high temperature, her nerve-power so much depreciated, her blood-state so rapidly injured, and her comfort so decidedly interfered with, that these considerations alone would point to the propriety of combating hyperpyrexia. For this purpose I formerly relied upon the affusion of cold, or tepid water, the patient lying upon Kibbee's cot; at present I accomplish the same result more easily and more pleasantly for the patient by the use of Chamberlain's rubber-tube coil, which I here show. A mat, composed of a rubber tube rolled upon itself in a circle, covers the whole abdomen from the ensiform cartilage to the symphysis pubis; the upper end of the tube which makes this mat is anchored by a weight in a tub of ice-water, placed about three feet above the level of the patient, and the lower end falls into a tub upon the floor. By syphon action the water of the elevated tub runs through the tube which constitutes the mat, and collects in the receptacle on the floor. By this means a temperature of  $104^{\circ}$  can very readily, as a rule, for there are exceptions to the rule, be kept at  $100^{\circ}$  for weeks together.

Unfortunately, there are almost insurmountable difficulties connected with the use of this invaluable method in the minds of the patient's friends, the patient herself, the nurse, and alas, too often, the attending physician. You are told that the patient becomes chilled, that the coil prevents her resting, that the temperature absolutely goes up under its use, and descends whenever it is left off; and by the doctor you are apt to be informed that his fear of resulting pleurisy, bronchitis, or pneumonia is very great.

I will merely say, in refutation of these charges, that in my service in the Woman's Hospital, where convalescents from laparotomy are constantly under treatment in large numbers, this means of controlling temperature is as commonly and as freely in use as poultices are in general hospitals, or gargles in dispensaries for diseases of the throat. We never meet with any of these difficulties, and very rarely with failures as to the desired result, and I believe that I am correct in saying that successive house-staffs, whose duty it has been to carry out the plan, have thus far had, to a man, the most implicit faith in its beneficial agency.

There are some peculiarities about it, however, which I must mention. Very often the coil will not succeed in controlling the temperature for twenty-four



hours; its prolonged use alone develops and illustrates its great benefits; and removing it from the body for an hour at a time damages its influence very much. I have never seen evil result from the chilliness which it excites, if hot bottles be kept at the soles of the feet, and in not one instance, out of hundreds of cases, have I seen pneumonia or pleurisy excited by it.

4. The nervous system should be so kept under the influence of febrifuge medicines as to keep under control the tendency to chill and pyrexia. For this purpose, fifteen grains of the sulphate of quinine should be given in capsule or by suppository night and morning, or, in place of this, two capsules may be given night and morning of Warburg's tincture, in the form of solid extract, as advised by Dr. J. T. Metcalfe. Lastly, to the same end the salicylate of sodium may be employed.

5. The patient's diet should consist entirely of fluid food, given often and in small amounts. The staple article should be milk, but animal broths and gruels may be alternated with it with advantage.

6. At the very commencement of such a case, the attending physician should, in the patient's interest, surround himself with efficient and abundant assistance. If he undertake to wash out the uterus every four or five hours without other assistance than that of the nurse, and if the patient is to rely for the constant attention and care, which she will inevitably require, upon one nurse, it is needless to point out that the duty of both doctor and nurse—vital duties, be it remembered—will be but half performed. And, unfortunately, the penalty will fall upon the patient and her friends.

For a case of puerperal septicæmia to be properly treated in private practice by the plan here advocated, it is necessary for the attending physician to associate with himself some young practitioner, who has the time to devote to the case, and the intelligence to use the uterine douche safely and efficiently. Furthermore, two nurses are necessary: one to be in charge for twelve hours, and the other then to relieve and replace her for an equal time. Without the rest and sleep thus afforded, no nurse taking charge of such exacting cases as these can possibly do her duty in such a way as to subserve the patient's interest. As a rule, the nurse will begin with the declaration that she is competent and willing to take entire charge; that she is one of those people who can do without sleep, etc.; and her heroic offers of self-sacrifice are hailed with enthusiasm by the terrified family. To believe in, and to act upon, this would be very foolish and very dangerous. After three nights of watching, this same nurse would snore through the hours in which her patient needed her, give the wrong medicines, mislead the doctor, allow the bladder to become distended with urine, and fail in every requirement of the occasion.

If the patient cannot bear the great expense attendant upon the extra service which I have mentioned, it is her misfortune, and for such as herself the doors of our hospitals are open. There is no case of ovariectomy in the Woman's Hospital, however poor the patient be, upon which, thanks to the generous arrangements of its managers, just such attendance as I have mentioned is not lavished.

The antiseptics which have heretofore been tried under these circumstances are thymol, boric acid, salicylic acid, carbolic acid, and mercuric bichloride. Of these, all have disappeared before the superior merits of the last two; and carbolic acid, which for so long a time has been almost supreme, appears about to be abolished in favor of the bichloride of mercury, 1 part to 1,000 or 2,000 of water. For all antiseptic purposes outside of the uterus, the bichloride is now, owing to the carefully made and important investigations of Koch, very generally employed in the strength of 1 to 1,000, and the uterus has now been washed out with this excellent germicide, 1 to 2,000, often enough to make us regard its use as an intra-uterine injection as entirely warrantable. If carbolic acid be

used in that way, it will not be safe to carry its strength beyond a two, or, at most, a two-and-a-half-per-cent. solution.

Dr. Barker, when the reading of the paper was concluded, said: The subject is now open for general discussion. So many of the Fellows of the Academy have signified their willingness to speak, and there are so many whom all will be anxious to hear, that I have felt it to be a duty to limit my remarks on the paper just read to a very restricted time, and to content myself with the enunciation of such general principles as I believe to be important truths without entering much into details. But there is one point which I hope will receive attention from the speakers who are to follow. Very early in my practice I began to direct the use of vaginal injections for the first week after labor, the antiseptic being Labarraque's solution. When I went on duty at Bellevue Hospital, now nearly thirty years since, this was made the invariable rule in the lying-in wards. Subsequently carbolic acid was substituted, and I give a formula for its proportions in the work on "Puerperal Diseases." I have habitually directed its use in all my obstetric cases until the last two or three years past.

At the time of the meeting of the International Medical Congress in London, in 1881, I happened to sit at a dinner next to Dr. Thomas Keith, of Edinburgh, and had a very interesting conversation with him as to the use of antiseptics in ovariotomy. What he said was very suggestive, and led to a good deal of subsequent reflection on my part as to the use of antiseptics in obstetrics. I recalled to mind the fact that often in my practice I had seen disturbances and interruptions of puerperal convalescence the first week after labor, and it occurred to me whether this might be due to the carbolic acid; and the following autumn I decreased the proportion of the carbolic acid one-half, and thought that my patients did better.

On further thinking of the subject, I said to myself: The carbolic acid, even in the larger proportions which I have formerly used, was not strong enough to destroy the micro-organisms; and is it not possible that nature has wisely so arranged as to furnish the best fluid for constantly bathing the bruised and lacerated tissues in the much-maligned lochia? Are not absolute rest and freedom from disturbance of these tissues much more favorable to their restoration than any washes that can be used? Since that time I have considerably surprised nurses by directing that no injections should be used unless specially ordered.

Dr. A. A. Smith, who frequently visits my patients during the first puerperal week, when I have other engagements, informs me that this direction was given more than two years ago. Since September, 1882, it is only in a small proportion of my obstetrical cases that I have seen any reason for ordering vaginal injections. It is hardly necessary to say that absolute cleanliness is insisted upon, and that not a spot of blood should ever be found on either the person, or her clothing, or her bedding.

We both can declare that since this time we have not had a single case, including instrumental cases, which during the puerperal period has given us any anxiety, or required more than one ordinary attendance of one daily visit for nine days. This may be only a happy coincidence, but it seems to me significant. I think most present will be glad to hear the views of others on this new departure.

Dr. W. M. Chamberlain said: I do not propose to enter into the general discussion of this subject, or of either paper which we have heard, but would like to notice some remarks made at the first meeting about the glass tube mentioned by Dr. Thomas and devised by me some years since for washing out the puerperal and septic uterus.

Dr. Thomas stated that he found occasion to make some modifications in the instrument, namely, to bring the openings nearer together at the uterine

end and to make an opening at the extreme end. The first of these I had long since done, and about the propriety of the second I still have some doubts.

Another gentleman criticised the tube as too large, and this suggests a point of much diagnostic value, as it seems to me, in determining in what cases intra-uterine injections should be employed and when they should be omitted, or, if employed, suspended. In every autopsy of a woman dying from puerperal septicæmia which I have seen, the uterus has been found large, soft, and flaccid. And in all the cases, during life which I have seen since I became critical on this point, the same condition has existed. There are different grades of septicæmia, such as sometimes follows after slight breaks in the mucous membranes of the genital passages, a little tear of the cervix, vagina, or perinæum, and is marked by a gradual rise of temperature day by day, until, a week or more after delivery, the patient may come into a critical condition. This is the analogue of surgical fever, and is to be distinguished from the explosive form, which is generally seen within forty-eight or seventy-two hours after delivery, ushered in by a sharp chill, lochial fetor, rapid rise of temperature, restlessness, anxiety, and prostration. When this exists, so far as I know, it always suspends the process of involution, the uterus becomes relaxed, the discharges accumulate in it, and are partially retained, and the uterus becomes a hot-bed, where the spawn of microbes will fructify in profusion or the virus of putridity may ferment unrestrained. These are the cases, I believe, which require antiseptic uterine injections, and in these the os is so patulous and so soft that a large tube will pass readily by its firmness, will give a leverage which will lift the soft anterior lip, and leave beneath it a space for free exit of the injected fluid. In such softened tissue, a large bearing surface is safer, even as a large sound is safer than a small one in a soft urethra. While if the uterus be itself thus open there is reason to fear that its tubes and sinuses may also be patulous, and therefore liable to be entered or injected by a small tube, particularly if it be open at the end. The remarkable studies of Dr. Garrigues have shown us that the ordinary lochial discharge in a normal delivery is not noxious, if access of a ferment or a contagium from without be carefully excluded. I hope we may hear from him again on this point, and will leave him to give his account, which he will do much better than I. To the objection that in my tube, as originally made, the antiseptic fluid is evacuated in the vagina before it reaches the womb, I can only say that I had the best results with the original tube, and think it not probable that so large a calibre would be evacuated so rapidly by an orifice without the womb, when that orifice was so small.

I repeat it, that I find no occasion for irrigating a uterus in which the process of involution is going on at or about the normal rate, for such a uterus does not contain the septic material to be washed away. Some, at least, of the cases in which the injections have seemed to do harm are to be ascribed to the failure to make this distinction.

Dr. W. T. Lusk thought that the society was to be congratulated upon two such papers as that of December 6th and that of the evening, as, in many respects, in spite of the seeming antagonism between them, they really supplemented each other.

While it was his desire to confine his remarks to the local treatment of puerperal fever, yet he would venture to state his faith concerning the etiology of the disease, as in practice every man is governed by his theoretical views. He would say that in his opinion surgical fever and puerperal fever are not only analogous, but are essentially one and the same process.

To maintain this definition it was necessary to bear certain facts in mind. Much confusion had been occasioned by the failure to classify as distinct from puerperal fever the action of certain extraneous poisons, such as those of scarla-

tina, of typhoid and malaria, which, ingrafted upon the puerperal woman, lose many of their characteristic features, and in their modified form present many features which are usually attributed to puerperal fever.

Again, the differences in symptoms between surgical and puerperal fever are in a large measure due to differences in the anatomical conditions. The entrance of poisons into the system through a clean cut stump necessarily would give rise to symptoms of a different nature from those produced by the same poison when introduced through a puerperal wound, where the serous infiltration of the tissues, the wide intercellular spaces, the dilated lymphatics and veins, the ordinary machinery for the removal of the retrograde products of the pelvic organs, all are active in conveying deleterious as well as the normal waste materials into the organism. Again, it should not be forgotten that in puerperal women a special danger exists in the proximity of the peritonæum to the seat of infection. But with differences of symptoms not explicable upon anatomical grounds, surgical and puerperal fever are linked together by the presence in both of the round bacteria. Both are of septic origin. Many arguments against the septic nature of puerperal fever are based upon a confusion of terms and the failure to recognize the modern distinction between putrid intoxication and septicæmia proper.

A decomposing fluid containing rod-like bacteria only is characterized by the foulness of the odors it emits. When injected into the veins it produces symptoms of profound disturbances in the nervous and chylopoietic systems, the animal experimented upon becomes feverish, depressed, a stinking diarrhœa develops, but, unless the first injection be large or the injections frequently repeated, the animal finally recovers. This form is not infectious, because the rod-like bacteria under no circumstances thrive and multiply in the human system, and this explains the fact that physicians have been known to go from the dissecting-room to the lying-in-room with their hands still stinking, and yet have not communicated puerperal fever. But the round bacteria, which thrive in putrefying fluids, but to which putrefaction is not absolutely essential, unlike the rod-like variety, under favorable conditions, which we term the predisposition of the patient, may penetrate the tissues, enter the lymphatics, and be distributed to the parenchymatous organs and to the serous cavities, and far away from the original site of the disease may form sturdy colonies which excite inflammation destructive in character or interfering with the performance of function. Or again, the round bacteria may be disseminated through the system by portions of thrombi dislodged from inflamed veins. In many cases, it is true, no such general dissemination of these fungi need ensue. If the septic micrococci are of feeble activity or meet with resistance from the invaded tissues, it was possible for them to progress only a short distance from the point of entry, and there to give up the combat, giving rise to circumscribed inflammations, such as cellulitis and local peritonitis.

With regard to prophylaxis, he thought too great a burden could be thrown upon the practitioner by insisting upon non-essential details. He should hardly expect great results from washing furniture, walls and floors with antiseptic solutions. At least, in lying-in hospitals, where he had seen many epidemics of puerperal fever, there was a time when everything was washed and scrubbed with great vigor. No pictures adorned the walls, no carpets covered the floors, and carbolic acid was used without stint, but he had never observed that these precautions ever exerted the slightest influence upon the prevention or the restraint of puerperal fever. The fumes of sulphurous acid had since been substituted with the best results, and he would strenuously recommend the modes of disinfection employed by the Health Board in all cases where there had previously been scarlatina, diphtheria, typhoid or erysipelas in the house. In this connection he would state that a woman should never, if possible, be con-

fined in the chamber adjoining the bath-room, as he believed that puerperal women were extremely sensitive to sewer-gas poisons.

In normal confinements, the uterus contracted during the expulsion of the head and body of the child in such a way that no air found entrance into its cavity. There is no evidence that decomposition ever occurs normally in the interior cavity. In the vagina the conditions, on the contrary, are all favorable to decomposition. There the lochia stagnate, and there are found heat, air, and moisture, which favor putrefaction. Putrefaction of the uterine contents is not a primary, but a secondary condition, the changes beginning in the vagina creeping upward after a distinct interval into the uterine cavity. This he considered an important point in practice, as in cases where labor had been normal, and there had been no needless interference with its progress, if the vagina was thoroughly cleansed it was rarely necessary to carry the injection into the uterine cavity.

In cases of difficult labor, on the contrary, where the hands or instruments had been introduced into the uterus, primary intra-uterine decomposition was rendered possible, and was then especially favored by lax uterine walls, and the presence of bits of retained placenta or deciduæ. In such cases the intra-uterine douche is often the direct means of saving patients' lives. It would, however, have been better if the uterus had been thoroughly disinfected, not after the symptoms of septic poisoning have developed, but immediately after labor. The douche was then harmless, it stimulated the uterus to contract, and was a powerful means of preventing subsequent dangers. For his own part he preferred the fountain to the Davidson's syringe, but the choice was apt to be determined by circumstances. In not every case of uterine infection were favorable results to be obtained from the douche. In cases where the round bacteria had been inoculated into a wound, the disease rapidly progressed into the tissues beyond the original lesion, so that they were often advancing, a victorious army, far beyond the reach of the stream which was thrown into the uterus. Washing the arm the day after vaccination does not prevent the development of vaccinia. Washing the uterus after the pelvic tissues are invaded does not prevent the development of puerperal septicæmia. His advice, then, would be not to continue the uterine douche in cases where the results of the first injection furnished the evidence of its impotence.

The results of antiseptics, as understood by the speaker, had been most surprising in the lying-in asylums of Europe. In Vienna, where in his student days the mortality had been not far from five per cent., the reports now show one death from septicæmia in two hundred. In Prague, during the last year, upon Prof. Strong's division of eleven hundred cases, there was not one death from puerperal fever. But in these hospitals, and everywhere, the indiscriminate use of uterine injections has invariably added to the mortality. With all the blessings from their use, with the indubitable fact that they have been the means of saving many lives, unless the indications for their employment are carefully restricted, it is to be borne in mind, that they are likewise capable of adding to the risks of the puerperal state, and of swelling the death-roll from puerperal causes.

Dr. H. T. Hanks.—Mr. President and gentlemen, having listened to the very valuable paper of Dr. Thomas on the evening on which it was read by the author, and having been invited by him and by our honored president to express my views upon this important subject, I have felt that it was due you all that what I have to say, where so many will be glad to speak, should be in the fewest possible words that will fully convey my ideas. I have said that this paper is a valuable one, and this subject an important one. I do not say it unadvisedly. I believe this paper will have a most vital and lasting influence, and that in America, among the more intelligent physicians, many of these sug-

gestions made and the course of treatment marked out by him are to become the accepted rules of the future on the treatment of this class of cases.

The profession of to-day, especially in this city, are ready to accept any plan which promises better results than those attained in the past. It is not enough for Dr. A. or Dr. B. to say that he has attended twenty-five hundred cases of labor, and lost but two patients from this fever among all this large number. If Dr. A. or Dr. B. has had, or remembers to have had, but *one* case in every thousand, Dr. C., just across the street, who is equally educated and just as skilful, confesses to have lost one in every 120 of all his puerperal women. Statistics from *memory alone are uncertain*. The disease is not found in the city so much more frequently than in the country, where you compare the numbers. I remember distinctly that in my five years' experience in country practice in Massachusetts, one of my patients, two days after an easy, normal labor, drank a pint of *cold* milk. An hour afterward she was seized with violent colic pains and soon vomited. An hour later she had a severe chill, followed by every symptom of septicæmia and rapid general peritonitis, and she died on the fifth day. Dr. Godding, from a neighboring town, a venerable and able physician, who was called in consultation, concurred with me in pronouncing this a typical case of puerperal fever. We explained it then in this manner: The cold milk drunk by the patient was not digested, and caused vomiting; straining at vomiting and the relaxation following allowed some extraneous poisonous matter to enter the open vessels of the womb; the chill and the fever followed in regular order, and death resulted. One other case, two years later, of severe puerperal fever came under my care during the five years of my country practice. This second one followed a difficult instrumental labor, where there was considerable laceration of the perinæum and quite likely of the cervix, although at that time I had not been led to look after this lesion or expect a slow convalescence because of it. This was a case of puerperal septicæmia, resulting in pelvic cellulitis and general peritonitis. She recovered, however. This made two cases and one death out of seventy-five confinements. I believe, from the fact of my being called frequently in the country at the present time to see cases of puerperal fever in consultation, that when numbers are actually considered and exact statistics are obtained, there will be found a much larger per cent. of deaths in country towns from this disease than the profession have been led to suppose.

But in this city I have been interested to get at the facts, and have obtained from the President of the Board of Health the statistics of *deaths*—not cases treated—from puerperal causes during the last four years, and I find that there were 240 deaths in 1880, 259 in 1881, 246 in 1882, 262 in 1883. In 1882 the number was slightly less than in 1881, otherwise the increase from year to year could be explained by the increase of population. The startling fact is here manifest, that for the last four years in New York City, out of 120,418 puerperal women, there have been 1,005 deaths from puerperal fever, or one death in every 120 women who have borne children. One thousand and five deaths from among a class of patients who can be but poorly spared, and who are the most important class, with one exception perhaps, of all that we are called upon to treat, is an alarming fact. I do not, therefore, speak at random when I state that the profession at the present time are ready for any judicious change which promises better results for the future. And I thank Professor Thomas for able contributions upon a subject which has interested us all of late, and which is of vastly more importance to the profession and to the world to-day than the subject of "How to Operate for Cystocele," or "How to Fasten the Pedicle after Ovariectomy," or "How I Stand and Believe on the Code Question."

Many of us who are frequently called to see these cases of puerperal fever have been often led to ask ourselves: "How can we prevent and what can be done to cure these fearful cases?" I believe that I am sustained by a large

number of the profession who are present this evening, if I say that "out of this one thousand and five deaths from puerperal cause in this city during the last four years many of these mothers would not have contracted this disease, and when contracted, might have been cured, had these rules laid down by Professor Thomas been judiciously carried out. My object in speaking will have been accomplished if I can help to emphasize the importance of nearly all of these rules. I will speak first of the name. I believe there is no better one than the one adopted or approved of in his paper, "puerperal septicæmia," and it may surprise you to know that to-day it is becoming more and more adopted by the profession. In 1880 there were reported in this city but 34 deaths from "puerperal septicæmia," while in 1883 there were *sixty-four*. In 1880 there were reported, however, 49 cases of deaths from "puerperal fever," and in 1883 there were eight less, although a larger number of *puerperal women died*. To show the result of the teachings upon this subject in the text-books of Playfair Leishman, and our own Lusk, I will state that in 1883, in this city, there were but 41 deaths reported from "puerperal fever," while there were 143 from "puerperal metritis and metro-peritonitis," 64 from "puerperal septicæmia," 5 from "puerperal pyæmia," 1 from "puerperal pelvic cellulitis," 2 from "puerperal cellulitis," and 1 from "puerperal phlebitis."

Thus we see that these several names are used to-day to denote that puerperal disease was manifested in these various ways. In the light of present pathological teachings and intelligent clinical knowledge, we may safely say that nearly all these several diseases have been caused, either directly or indirectly, by one and the same poison, taken into the circulation and resulting in these several organic changes.

For myself, I will say that during the last fifteen years in this city, where I have averaged sixty-five confinements in a year, besides a large number in consultation, I have had two and sometimes three cases of puerperal fever, not always three deaths, from so-called puerperal fever. I have had no case that I could not satisfactorily explain as caused by absorption of the poison at a certain point of the genital tract.

But to come down to the practical points of the paper—the prophylactic measures to be adopted.

*Rule 1.*—Preparing the room by proper antiseptics and disinfectants. Always try and carry it out, always be certain you do enough, and that without alarming your patient.

*Rule 2.*—The nurse and physician thoroughly to disinfect themselves and their clothing. This rule cannot be carried out too minutely.

*Rule 3.*—Bathing of the vulva, etc., of the patient with antiseptic fluids before the delivery of the head. Useful, but not so important as the first and second rules.

*Rule 4.*—Preparing nurses' and physician's hands, etc., before labor sets in. Absolutely necessary.

*Rule 5.*—Removing all clots of blood and tufts of placenta, and the giving of ergot in moderate doses for a week. Certainly important. The use of ergot in small doses can do no harm, but in full doses (one-half to one drachm doses) will cause an unnecessary amount of distress and uterine colic. Always give it where the uterus does not remain well contracted.

*Rule 6.*—The examination of the vulva should be made at once in all cases to see if the perinæum is lacerated. If only a slight fissure exists, thorough cleansing with antiseptic fluid, or local application of persulphate of iron to be covered with vaseline is required. If the laceration is extensive, but does not involve the sphincter ani, one deep suture, or two at most, should be introduced at once, the ends lightly twisted, not tightly, as we must expect swelling of the parts—then bent down over the anus or fastened with perforated shot. In no

case should the long loops be allowed to remain directly protruding, to be constantly jarred by the antiseptic napkin, and a source of irritation and sometimes of great suffering. But, however, where the patient is greatly exhausted, the nurse, husband and friends somewhat demoralized, the *primary* operation should be postponed. For we all know that even the *secondary* operation is often the cause of great fever, distress, and, occasionally, danger. Much more so *may* be the *primary one*. If laceration extends through the sphincter ani and into the rectum, by all means delay the operation until convalescence from the puerperal state has taken place, and you have your faithful assistants at command.

*Rule 7.* Frequent antiseptic vaginal injections are necessary. Perhaps not in all cases; but if sickness follows when you have not used them, you will not cease to regret it. The use of the iodoform suppository, placed near os externum, may be useful in some cases. I should not insist upon this rule, since the distress and the labor attending their use must be considerable. The nurse cannot easily insert them, and the speculum ought never to be introduced for such purposes, excepting in extreme cases.

*Rule 8.*—Frequency of urinary vaginal injection. A good rule.

*Rule 9.*—Drawing the urine frequently with a clean catheter. An important rule.

*Rule 10.*—See personally that the nurse can do, and does do, her work well. Excellent and absolutely essential.

In the *treatment* of puerperal septicæmia I can only concur with every suggestion Dr. Thomas has made, and would add only one remedy to the list of therapeutic agents which he has recommended, and this is aromatic spirits of ammonia, given in one-half teaspoonful dose, diluted with brandy and water and generally given every two hours. Dr. Thomas' suggestion about the hypodermic needle is exceedingly timely.

In using the antiseptic vaginal injections I should suggest the use of a large bed-pan, like the one here shown, and thus avoid lifting the patient to the edge of the bed, for obvious reasons a dangerous procedure. The intra-uterine injection should be used only when it is strongly probable that there is loose débris in the uterine cavity. In that case the cervical canal will be partially open, and the small-sized Chamberlain glass tube should be passed in with the greatest gentleness, and the antiseptic fluid cautiously injected. I would again repeat that only when it is almost *morally certain* that the cause of the disturbance is within the uterine cavity should the intra-uterine injection be used. I should not advise the introduction of the Sims or Cusco speculum into the vagina, nor dilatation of the cervical canal, *unless* I were certain of finding large tufts of placenta in the cavity. The use of the rubber coil with cold water has served patients well after ovariectomy. I certainly should try it in puerperal cases whenever the occasion seems to demand. But this is a dangerous assistant if not watched. The diet of milk and animal broths is excellent.

The selection of a competent nurse and assistants necessary, if we are to carry out this plan, is an important matter. Some of the suggestions may seem unnecessary, a few, I believe, can be safely dispensed with. If the young physician who wishes to succeed in life, should find it impossible to safely introduce the iodoform suppository every six hours, and he has no rubber coil, or that his patient has lost two drops of red blood from the vagina after the expulsion of the placenta, as one has lately claimed in this hall to be an abnormal and pathological condition, instead "of going out and hanging himself," or even following Horace Greeley's advice and going West, he should stop and reflect upon the fact that women *have* recovered from puerperal fever without the aid of either iodoform suppository or cold coil; and also that though his first patient may stain one or two napkins daily for a week with red blood, still she too may recover, and they both may in time laugh at the author of such a statement.



In conclusion I wish to give you the names of the four assistants who have always, when called upon, effectually aided me in the lying-in chamber. I have, of late, been accustomed to call upon my new patient and the nurse some weeks previous to the expected confinement, and telling them both of my desire to have present during delivery, and all through the puerperal state, these four assistants. If they do not consent to my request I respectfully withdraw from the case. If they *consent*, I go on and am satisfied with my labors, and expect perfect results. These four assistants are all important, and the first, second, and third, are of quite as much consequence as the fourth.

And as I look back at my record of births, I find that the want of the first assistant has been the cause of a few deaths; the want of the second assistant the cause of no less than four deaths; the want of the third assistant the almost certain cause of three deaths, and weeks of sufferings for others, while the want of the fourth assistant has been equally disastrous. I give their names: "pure air," "absolute quiet," "judicious diet," "proper antiseptics."

Dr. P. F. Mundé had listened with great pleasure and interest to the paper by Dr. Thomas, and also to the discussion this evening, but had felt at a loss to know what to say in case he should be called upon to speak. Since he first began to practise obstetrics, some eighteen years ago, he had seen a number of cases of puerperal fever in hospital and private practice. More recently it had become his custom to treat puerperal fever locally, precisely as though the case were one of septic wound—just as a wound which gave rise to septic infection would be treated in any other part of the body, and he must confess that he had arrived at the conviction that puerperal fever was, properly speaking, puerperal septicæmia. Although he had arrived at this conclusion, at the same time he wished to qualify the statement. Certainly, whenever he was called to a case in which he found an offensive discharge from the uterine cavity, attended by rise of temperature, preceded or not by a chill, he felt it his duty to wash out the cavity of the uterus. And if he failed to do this, he felt that he had failed in his duty to himself and to his patient. Again, however, he had seen cases in which, in the entire absence of evidence of infection of the uterus or the perinæum, he could not help feeling that the condition was something different from what we found in cases of septic infection. He could not help feeling that there were cases in which we could not exactly trace the source of the trouble to septic infection. He was obliged to subscribe, in short, to the views of the honored president, that there were some forms of puerperal fever which we could not call puerperal septicæmia. Regarding the etiology of puerperal fever, he had nothing to say, and yet the subject had of late been so much talked up that it seemed we would have to subscribe either to the view that puerperal fever was puerperal septicæmia, or else that there was a peculiar form of puerperal fever, puerperal fever proper. At any rate, whenever he had a case of fever during the puerperal state, with offensive lochia, he took the risk of washing out the uterus, and if it were not necessary, he felt that if properly done it probably would do no harm. Concerning vaginal injections as prophylactic treatment, much had been said for and against it. He himself had employed them, although he must admit that the objections which had been offered to the practice might have some foundation. Probably one of the chief reasons why he had permitted them was that the nurse and the patient commonly thought all had not been done that should be done if they were neglected. He objected to the use of the Davidson syringe for making the uterine injections—cases had been reported in which the fluid or air had been forced by it into the uterine sinuses, resulting in death. Certain other dangers from intra-uterine injections he thought should be more forcibly emphasized than Dr. Thomas had done in his paper. The mere absence of discharge from the uterus did not contra-indicate the injections; indeed, it might be a special reason for employing them. This was illustrated by a case in which the dis-

charge had ceased simply because the uterus had become anteverted and closed the outlet. He was doubtful whether it were an advantage to have a terminal opening in the Chamberlain tube. He agreed with Dr. Lusk, that when the temperature remained high in spite of the injections, that the victorious army had probably come on into the general system, and our washings simply brought away the rear-guard, and were liable to do more harm than good if continued.

Dr. Fordyce Barker said: During the five years which I have had the honor to occupy this chair I have never before seen a meeting of this Academy so enthralled by the charm of elocution, the fascination of rhetoric, the glow of conviction, and the air of one who speaks by authority—an air which can never carry weight, unless it has been before fairly and justly earned by good work—as on the evening of December 6th, when the paper was read on “The Prevention and Treatment of Puerperal Fever.”

Its authoritative tone, its earnestness and sincerity, its coloring of being based on experience and observation, instead of being unconsciously deduced from preconceived theory, give the paper such a plausible air of scientific truth as must secure its acceptance without question by many minds whose belief rests on authority, without examination of the data or analysis of argument. The more eminent the author of errors which may dangerously influence medical practice in matters of such vital importance as the saving of life of those who have just become mothers, the more striking the literary excellence and the more admirable the artistic merits of a paper promulgating such errors, the more necessary it is that such errors should be boldly met and promptly refuted. Any paper read before this academy, by one to whom all concede a place among the most eminent in the department of the profession to which his life has been devoted, if allowed to pass without examination and discussion, will be accepted by great numbers in all parts of the country as a statement of the science and medical practice, as enunciated by the most prominent men of the period. It is therefore a duty to carefully examine those novelties in doctrine and in practice which are brought here, and subject them to the test of the advanced science of the day and the accumulated experience of the past.

I will mention one other reason which has had a strong influence in overcoming my reluctance to do this work, and that is in the interest of the academy.

In view of some past controversies outside of the scientific aims of this Body, it seems to me desirable and important that the profession at large should understand that in this hall there can be the strongest antagonism in scientific doctrines and in questions of practice, and the keenest encounters in intellectual gladiatorship, carried on with all the courtesy of the duello, without individual hostility or the interruption of personal friendship.

I think most present know the great reluctance which I have to writing, especially the mechanical part—and that other engrossing work leaves me little time for this, except what should be passed either in rest or in recreation, and will therefore thoroughly appreciate the great reluctance with which I have undertaken the duty.

All will agree that the paper was remarkable for its originality, in that some of its pathological doctrines and the practice inculcated for the prevention and treatment of puerperal fever have never been taught in any work on obstetrics, or by any writer of acknowledged repute. If they are accepted by the common intelligence of the profession, they will assuredly be found in the obstetrical works of the future.

As there are many others who will take part in this discussion, whom all will be anxious to hear, and as the author of the paper is entitled to all the time he may wish to close the debate, I shall, in the most concise language consistent with clearness of statement, give my reasons for thinking that the whole tone and

coloring of the paper are misleading and dangerous, because it is supersaturated with septic infection. I would "speak disrespectfully" of puerperal septicæmia. I believe it to be one of the most dangerous incidents which may occur to women after child-birth, and I trust that it will not be regarded as indelicate, if I allude to the fact that in a work on puerperal diseases, published more than ten years ago, a lecture devoted to the consideration of this subject in all its relations fills thirty-seven pages. With the most anxious desire to correct any errors of opinion, and to accept any new views which progressive science or increased and more accurate clinical observation has demonstrated to be true, I have yet found no reason to make any essential change of the views expressed in that lecture.

In the paper which we are now to discuss, the author distinctly avows his belief, without any qualification, that "puerperal fever is puerperal septicæmia," and that "it matters not whether it assume the form of metritis, phlebitis, cellulitis, peritonitis, or lymphangitis, the essence of the disorder is a poison, which is absorbed into the blood of the parturient woman through some solution of continuity." Not only the sentence quoted, but the whole tenor of the paper must convey to the unbiased mind that it is the well-defined opinion of the author that metritis, phlebitis, peritonitis and cellulitis are never seen in the puerperal woman except as the result of an initial lesion, which permits the absorption of a specific poison through the parturient canal, either from the atmosphere, or from direct infection by doctors or nurses, from neglect or carelessness, or other agents brought in contact with the sexual organs.

The tendency to this pathological view has been rapidly growing within the past few years, as a result of the enthusiastic interest excited chiefly by the important investigations of our German co-workers, who have so zealously studied the character and effects of the micro-organisms in puerperal women in hospitals. In several of the most recent and the most excellent systematic works on obstetrics I have observed that nothing is said of the various local phlegmasiæ which are liable to arise in puerperal women as a consequence of parturition, and that they are only alluded to in connection with the subject of septicæmia. This seems to me a very grave omission, which must seriously embarrass young obstetricians, who consult these works for information when normal convalescence is interrupted by any of the local inflammations. No one, as yet, has maintained that the process of parturition and the puerperal state exempt a woman from those causes which induce local inflammation in the non-puerperal, or will deny that the process of parturition, and other attendant conditions besides the absorption of septic poison may be the efficient cause of local inflammation; and I here state my conviction that in private practice, when there is no epidemic influence, twenty cases of local inflammation, due to such causes, will be met with where one will be found due to septic absorption.

It is hardly necessary to say, as I have before expressed the same opinions in a work published some years ago, that I am in entire accord with the author in his preliminary remarks as to the peculiarities in the system of puerperal women. I suppose that all educated men now know that the blood of a pregnant woman is in a state of hyperinosis, and that, as a rule, "her nervous system is in a plus state of sensitiveness and excitability, and influences which are very controllable in the non-puerperal state produce very evil results here." But it is very evident that in certain points our opinions are wide apart. He regards certain conditions, which always are found following normal labor and always occur in normal puerperal convalescence, as pathological, but which I believe to be purely physiological.

The ancients believed in the poisonous nature of the menstrual fluid. Pliny described the menstrual fluid as a "fatal poison—which corrupts and decom-

poses urine, deprives seeds of their fecundity, destroys insects, that it blasts the garden flowers and grasses, and causes fruits to fall from their branches."

I had supposed this superstition to be extinct until informed by a letter from my friend, Dr. Weir Mitchell, that he knew "old men who would not permit a woman to enter their wine-room, for fear that, if menstruating, it would injure their wines." He also informed me that "in Roquefort women are not allowed in their cheese cellars." I suppose the theory must be that menstrual bacteria will destroy the bouquet of the Roquefort cheese.

But on the evening of December 6, 1883, in this Academy of Medicine, I first heard the full evolution of this doctrine clearly enunciated. The lochia are described as an offensive fluid, made up of dead and decaying animal tissues, which poisons freshly-made unprotected wounds. I quote textually two paragraphs:

"In every case of child-bearing the endometrium is thus encumbered, and freed by a process of exfoliation and sloughing; in every case the cervix, vaginal mucous membrane, perinæum, and vulva are, in varying degrees, lacerated; and in every case the offensive fluid, called lochia, poisons these freshly-made, unprotected wounds."

Again the writer says: "Here we have a number of recent wounds constantly and unavoidably bathed with a fluid made up of dead and decaying tissue, animal tissue in a woman whose blood and nerve states are, with reference to septic disease, like flax prepared for the spark, and who is exhausted by pain, anxiety, loss of blood, and deprivation of sleep."

Other quotations might be given of a similar tenor, and the prophylactic measures, which he asserts "should be adopted in all midwifery cases, whether they occur in hospital or in private practice," are based mainly on this theory.

Can it be true that the process necessary for the birth of the human race is always attended with the development of a deadly poison whose malignant effects must inevitably prevent the spontaneous and kindly healing of such little traumatism as always result from the process, and that, therefore, it is the duty of the accoucheur to take preventive measures of the character proposed? Does every parturient woman, in performing the function of maternity, like the scorpion,\* that carries in its tail an agent for suicide, if death is threatened by fire, physiologically generate an equally fatal poison in a corresponding locality, which the obstetrician must guard against by means that are most inconvenient, alarming, and not altogether free from danger!

I do not intend now to examine the question, which I have before discussed very thoroughly, and my views have long been published, whether there is not a distinct disease, most appropriately denominated puerperal fever, when, if there be any septicæmia, it must be a consequence of a primary disease, and not a cause. Nearly a hundred years ago the eminent obstetrician of London who succeeded Denman, Dr. John Clarke, wrote as follows in regard to puer-

\* The late Professor William H. Van Buren used to narrate that, when a surgeon in the army and stationed in Florida, he had often seen the soldiers amuse themselves by placing a scorpion within a circle of fire. After vain and frantic efforts to escape, it would stop, strike its tail into its head or body, and instantly die.

Byron refers to these insect Catos in the following lines:

"The mind that broods o'er guilty woes  
Is like the scorpion girt by fire,  
In circle narrowing as it glows,  
The flames around their captive close,  
'Till, inly scorched by thousand throes,  
And maddening in her ire,  
One sad and sole relief she knows:  
The sting she nourished for her foes,  
Whose venom never yet was vain,  
Gives but one pang, and cures all pain,  
And darts into her desperate brain."—*The Giaour*.

peral fever: "Unfortunately, the uniformity of the disease was assumed, and each author erected his own experience into a standard, by which to judge of the descriptions and the practice of others." This observation, which I read early in my professional life, made a strong impression on my mind. I trust that it will not be deemed egotistical that it had great influence on my mind during the twenty-five years that I was engaged in teaching medical students, as I felt strongly the responsibility of the position, and that I should be culpably negligent in my duty if I simply gave the results of my own observations, or the opinions of a limited number of observers, or the theories of a few popular authorities, but that I was bound to give the sum of the knowledge which had become a part of the common stock of the profession. For reasons which will be obvious, I felt this more strongly in regard to puerperal fever than any other subject which I had to discuss either before medical students or in medical societies. More has been written on this than on any one disease. It has been a terribly fatal disease in lying-in hospitals in all the great cities where such hospitals are found. It has been fatal as an epidemic in rural districts, where within a certain area every woman in a sparsely-settled population, who gives birth to a child, for a certain limited period is affected, and a large proportion die. I could refer to very many published reports of such epidemics which have occurred in villages and towns where for twenty-five or thirty years previous not a single death has occurred in childbirth except from the casualties of labor, such as rupture of the uterus, hæmorrhage, and convulsions.

All we know of any disease is derived from the study of its ætiology, its clinical phenomena, and its anatomical lesions. The epidemic disease to which I have just referred differs in all characteristic points from what is known as septicæmia. It differs in its origin, its modes of attack, its symptoms and its anatomical lesions. The symptoms are frequently manifested a day or two before, or even during labor, even when the child is subsequently born alive. In septicæmia, the symptoms are never observed before or during labor, except when the foetus is putrid. The former disease, puerperal fever, originates from epidemic causes, and from contagion and infection. The latter, from nosocomial malaria, from autogenetic infection, and from direct inoculation. Can a woman after childbirth be exposed to the danger of receiving the poison which produces septicæmia in larger doses, than when she has retained in her uterus a portion of putrid, decomposed placenta? Yet I do not believe there is a single person who has had considerable obstetric practice for twenty years, who has not had more than once to remove portions of putrid placenta which have been retained for days, and the patient has had no disturbance of such severity that he would call it puerperal fever. In the *Texas Courier-Record*, December, 1883, Dr. H. C. Ghent, of Belton, Texas, gives an amusing report of a case to which he was called three days after labor. She was attended during labor by an ignoramus, who appears to have used considerable force, and probably made some efforts to extract the after-birth. The patient, before he left, called his attention to something like a cord protruding from the vagina, which he said would, perhaps, come away by piecemeal. On his visit the next day, he at first said that a protrusion from the vagina was a false conception, but afterward pronounced it a falling of the womb, which, after a considerable length of time, he succeeded in replacing, and had the anxious husband engaged for twelve hours in constructing an abdominal supporter. On the third day, Dr. Ghent removed a large portion of the placenta and membranes, a putrid mass, with a stench which "was about as much as an ordinary pair of olfactory nerves could well bear." The patient had a quick pulse and high temperature, the constitutional disturbance was easily allayed, as it seems that a "few thorough washings with hot carbolized water" was all the treatment required.

Before leaving this part of the subject now under discussion, I will briefly allude to one other point, which strikingly illustrates the difference between puerperal fever and septicæmia. I think there can be no doubt that the majority of the profession believe that all those causes of nosocomial malaria, such as aggregation, bad ventilation, contact with septic material, etc., which have a tendency to induce septicæmia in surgical cases, have an equal tendency to develop the disease known as puerperal fever in women recently confined. But this does not prove that the diseases are identical, for I think there is abundant evidence that, while these causes are always requisite for the development of surgical septicæmia, puerperal fever may be a very epidemic when these causes are wholly wanting.\*

In the early months of 1873 puerperal fever prevailed in the best parts of the city, and in that class of society possessed of abundant means and living under as good sanitary conditions as are possible in any large city, to a degree and extent here unknown for the previous twenty-five years. The deaths from this disease in the hospitals and in the wards of the city where the poor are aggregated were much fewer than in many former years. In five of the best wards of the city, in which are the residences of a great proportion of those of wealth, and few of the class of dwellings known as tenement-houses, with a population of 307,046, there were 80 deaths from puerperal fever, while in the remaining wards of the city, with a population of 605,245, there were but 63 deaths. In other words, I may say that during this period, in those wards of the city where the causes of septicæmia must have existed in the greatest abundance, the mortality was nearly one-third less from puerperal fever, in proportion to the population, than in the best parts of the city, where these causes of septicæmia could have existed only in a very limited degree.

I have good cause to remember this epidemic, as the excessive work, mental strain, and loss of sleep which it brought upon me, as my medical friends know, affected my health to a degree that required nearly six years for perfect recovery. I saw ninety-five cases during this epidemic, of which nineteen were fatal. Most of the latter I believe to have been fatal in their character from the history which I received, and I only saw them once. I had three cases in my private practice, in one of which the patient died. After this, most of the ladies whom I had engaged to attend, by my advice, went out of town for their confinement, and all these had normal convalescence.

From all these considerations, I think that if all the knowledge of this disease be derived from authors who have studied it in hospitals exclusively, it will be limited and onesided, and the deductions, both as to its pathology and as to its treatment must in many instances be erroneous and unsafe. Especially must this be the case with those whose well-deserved eminence as operators compels them to be brought in frequent contact with surgical septicæmia and to witness the terrible results which this produces after the most skillful performance of such operations as laparotomy and ovariectomy. Indeed, one can hardly understand how such a surgeon, who accepts the theory and believes in the necessity of such a prophylaxis and such treatment as is insisted upon in the paper under discussion, would ever dare to enter the room of a puerperal woman.

There are many other details in this connection which I am tempted to discuss, but these will doubtless receive due attention from the speakers who will follow me. I will, therefore, content myself by expressing an opinion which will surprise many who have been carried along by the popular wave of the septic theory as the initial cause of most of the puerperal diseases. My conviction is strong, based partly on individual experience, but chiefly on a careful study of the clinical midwifery reports of private practice and all the literature of the subject in my possession—and this is very full as regards the English and

\* See "Puerperal Diseases," by Fordyce Barker, Appendix p. 515.

French languages—that, outside of hospitals, less than two per cent. of the puerperal diseases, and not half of one per cent. of the deaths after childbirth are due to septicæmia. There are no statistics of private practice which demonstrate the error of this opinion. The belief of the septicæmists that terrible dangers threaten every woman in childbirth is based wholly on theory. Because the maternal system has certain peculiarities differing from its normal condition—because the lochia are a poisonous fluid—and because there is always a certain amount of traumatic lesion in the parturient canal following parturition, every child-bearing woman incurs a most hazardous risk. This is a blunt statement of the argument and its deductions.

I do not care to summon in support of the opinion that I have just expressed any higher authority, even if it were possible to do so, than the writer of the paper which we are now discussing and from which I make the following quotations :

“ And yet what are the usual results? Recovery, uniformly, I might say universally, unless some unusual occurrence manifests itself to prevent this happy consummation. Theorizing about the matter, one would suppose that the mortality resulting from such a state of things must be excessive.”

\* \* \* \* \*

“ And yet the facts are these: only about one or two in every one hundred parturient women ordinarily die when properly cared for during labor, even in public hospitals.”

Now, if we recall the fact that a large proportion of deaths from childbirth result from the casualties of labor, such as convulsions, rupture of uterus, hæmorrhage from placenta prævia, nervous shock, etc., it will be seen that the belief which I have expressed differs but slightly, if any, from his. I certainly find it much more agreeable to refer to our points of agreement than our points of difference.

The limit of time which, in justice to others who follow, I have allowed myself, will permit but a very few remarks on “ the prophylactic measures which should be adopted in all midwifery cases, whether they occur in hospital or in private practice,” as the author of the paper distinctly avows. If “ she who is about to bring forth ” must “ be treated as one about to go through the perils of a capital operation ;” if all those preparations, so definitely enumerated, which gynæcological surgeons insist upon previous to an ovariectomy or a laparotomy, are necessary in ordinary labors ; if the danger from child-bearing be so great that a wise and prudent obstetrician is justified in subjecting his patient to the hazardous depression of intense anxiety and fearful doubt as to results, and in surrounding her with the vivid apprehension of her family, instead of stimulating and cheering her with the great happiness of maternity and the hope of increased interest and love from her husband ; if all or even a considerable part of the details mentioned are necessary “ to save thousands of lives which are now lost,” and to spare “ thousands of desolate households the sorrow of losing their female heads ”—then it seems to me evident that the State should make child-bearing a penal offence for all those families who do not have a sufficient annual income to make it possible to carry out all these requirements. Such a law could only be made effective by adopting the facetious suggestion, which appeared in the *Medical Record* of January 19th, over the signature of Seth Hill, Stepney, Conn., making it compulsory for all women unable to carry out these requirements “ to wear an antiseptic pad over the vulva from the inception of the catamenia until the menopause, to be non-removable without strict antiseptic precautions under the carbolic spray ;” and, to secure this pad, it would be necessary that some State official should apply the lock, which, no doubt, many present have seen in the Museum de l’Hôtel de Cluny, said to have been used by

the noblemen of France to prevent their wives from falling during their absence in the Crusades.

The description given of puerperal fever, true as it may be, in its outlines, of the septicæmia which gynæcological surgeons are so often forced to encounter, I think, will strike obstetricians familiar with the disease in the lying-in chamber as the ideal picture of a poet, differing as much from the scientific description of trained clinical observation as the pictures of natural scenery by a Byron or a George Sand would differ from a scientific description of a mountain or a lake by Humboldt.

As to diagnosis, I cannot regard the symptoms mentioned, even in their totality, as pathognomonic of septicæmia, as all of them are to be found in other puerperal affections, when there is no evidence of septic absorption, unless with the author, it be assumed that all puerperal disturbances are due to this cause alone. It is made an important point by the author to determine whether "the septic disease which is developing has originated in wounds situated between the os internum uteri and the vulva, or in the endometrium, above the former point." He says that "usually the question has to be decided by the efficacy or inefficacy of frequent germicide vaginal injections in bringing down the temperature and controlling other grave symptoms."

Now, I look at this subject from an entirely different point of view, and, as I have not the time to examine in detail the treatment inculcated in the paper we are now discussing, I must be content with the expression of my convictions by a few general propositions.

In puerperal fever, as met with in private practice, we have to treat the *consequences* of some form of blood-poisoning. This may or may not be septic poisoning. In private practice, I think it generally due to some occult, possibly atmospheric, epidemic influence; in hospital patients, nosocomial malaria, often associated with septic poisoning.

No treatment which interrupts the normal physiological processes—such as the retrograde metamorphosis of involution, the fatty transformation of the component fibres of the uterus, or the cicatrization of its internal surface by the exudation of organizable lymph, and the development of a new layer of mucous membrane, or the healing of traumatic lesions—can be justified, unless positive symptoms, now well understood in science, demonstrate their necessity.

Antiseptic injections, both vaginal and intra-uterine, are of great surface when the indications for their use are clearly shown by local signs or general symptoms, but they cannot be recommended with safety as a routine practice on theoretical grounds, as, for obvious reasons, they may be most detrimental in retarding the cicatrization of lesions and the other processes of normal convalescence, and are otherwise sometimes dangerous. In several cases which I have seen with others, where antiseptic injections, both vaginal and intra-uterine, had been used with all the care and precautions inculcated by the author and kept up for several days, the temperate rapidly fell, the profuse and sometimes offensive vaginal discharges speedily diminished, the pulse and general condition manifestly improved after the injections were discontinued.

I will only add a few words in regard to refrigeration as a means of reducing fever in puerperal diseases. I have no question that it may be useful in some cases, but my own experience in this method of treatment has not been favorable. Many years ago I tried it in several cases in Bellevue Hospital, but I soon gave it up, as the results were less satisfactory than where other plans of treatment were pursued, and I know that this was the conviction of my house staff. Cold will effectively and usefully reduce the temperature in active inflammations and acute fevers, but in adynamic diseases and in hectic fever this must be attended with a rapid waste of tissue more dangerous than the pyrexia. In three cases which I have seen with others—two a year ago and one this winter—where the



coil had been assiduously kept over the abdomen, most of the time two or three days, the conditions in which were remarkably similar, the abdomen was blanched, colorless, and not sensitive to pressure; the patients all avowed that the coil gave them great comfort, but the temperature was very high in all—in one  $104.3^{\circ}$ , and in the other two over  $105^{\circ}$ ; the pulse was very rapid and feeble, the heart's action extremely weak, with pulmonary symptoms—such as short, rapid, and shallow respiration—which caused grave apprehension that there might be latent centric pneumonia. After some discussion, I induced my friends to remove the refrigerating coil, and, in its place, to cover the abdomen with flannel saturated with the oil of turpentine, for the purpose of stimulating vaso-motor action, restoring the capillary and equalizing the general circulation. All were taking quinine in large doses. This was greatly diminished or wholly stopped, and digitalis and ammonia in full doses were substituted. In a few hours the change in each of these cases was most remarkable; the temperature was reduced from two to three degrees, the pulse was greatly lessened in frequency and increased in force, and all pulmonary symptoms, which had caused so much anxiety, had disappeared. Two of these patients recovered and are still living. The third, who had also been treated by antiseptic vaginal and uterine injection, was apparently convalescent, when suddenly she became much worse; collapse supervened, which was found to be due to a sudden development of diphtheritic membranes which covered the mucous surface of the vulva and vagina, the result of carelessness and dirtiness of the nurse. The patient died in a few hours.

I now ask permission to refer to a matter outside of the question of the prevention and treatment of puerperal fever, but in behalf of the "truth of history." I ask any who may feel sufficient interest to turn to the 320th page of my work on the "Puerperal Diseases," where they will find on this and the following pages the subject of intra-uterine injections fully discussed. Instruments for this use, which had been devised more than fifteen years ago, were shown to the class, and explicit directions were given as to the methods and indications for these injections, differing in no essential from those we heard in this hall on the 6th of December. The lecture was delivered in the amphitheatre of Bellevue Hospital, in February, 1869, and the work in which it was printed was published in January, 1874. Then it may interest some to look at page 85 of Volume IV. of the "Transactions of the American Gynæcological Society," and read the papers by Dr. Edward W. Jenks, of Chicago, and Dr. James R. Chadwick, of Boston, on intra-uterine injections, and the discussion which followed.

In conclusion, I will only add that my creed to-day is fully avowed on page 476 of the book to which I have before referred, and, unless in the future I learn new facts and new arguments to change my faith, I shall "die impenitent."

Dr. T. Gaillard Thomas was then requested to close the discussion. He rose and said, Mr. President and gentlemen: When quite a young lad I was present at a murder trial which made a deep impression on my mind. When the case had been presented, the attorney for the commonwealth, who was a florid and rather bombastic orator, got up and made a speech of two hours. At its close all were very anxious to hear the counsel for the prisoner, who had a reputation for great eloquence. Judge of the surprise of the audience when he arose and quietly said: "May it please your Honor, the case is closed; I rest it here. The gentleman on the other side has made so able a speech in favor of my client that I rely upon it for his acquittal." The prisoner was acquitted. I feel very much in this way with reference to the paper of Dr. Barker, to which I have just listened with feelings which I know you, who are his well-wishers, fully share with me—feelings of surprise, regret, and sorrow.

Discussions such as this cannot fail to do good, however, for I am a great

believer in the old Latin adage, *ex collisione scintilla*; and although, in view of the very greivous errors which, according to my distinguished colleague, I have brought before the profession and suggested for its adoption, I may be preferring silver to gold in deciding in favor of speech instead of silence, I feel called upon to say a few words in simple self-defence, that first law of nature.

Our honored president has been very guarded in opening his attack upon my paper, and has seemed to feel concern lest his author should take offence at his sallies. Let me assure him and you that it would take a great deal more than such a discussion as this to weaken the ties of friendship which a quarter of a century has cemented between us, or to cause me to take exception to the criticism of one whom I have often, in times past, encountered in the lists of debate, and have ever found just, magnanimous, and courteous!

But alas! gentlemen, my adversary has to-night incautiously and, I think, unwisely ventured to use against me that dangerous weapon—a two-edged sword—ridicule. Right mercilessly has he given me one edge; let him beware of the other!

As I saw him draw and flourish this weapon a few minutes ago, I experienced mingled feelings of pleasure and of pain. In a scientific discussion, more especially in a debate which directly and immediately concerns the saving of human life, which at this very moment is being deplorably sacrificed among us, ridicule, elsewhere a powerful weapon, is the poorest and most pitiful of arguments! It is the resort of the weak, not of the strong; and, as my adversary used it just now, I said to myself, "He feels himself to be very, very weak; he totters upon his pedestal; 'tis pity that he should feel so; for otherwise that master pen which so often in times past has enchanted us would not to-night emit what carries pain to my heart and to the heart of every true friend of his in this assembly, evidences of irascibility and of irritability which are so little characteristic of his real nature; otherwise I should not be able to recognize, as all others must do, the utter want of logic, the deplorable absence of argument, the total neglect of appeal to facts, and the very conspicuous presence of signs of wounded *amour propre* which unite to form an unwholesome stream that meanders through his essay.

I shall not detain you long. I have little to say, for Dr. Barker's attack calls for no rebuttal, and demands no argument on my part. I said all that I had to say on December 6th, when the original firebrand was thrown down and picked up by the wrong end by my excellent friend. There are, however, one or two points upon which I must touch to avoid misrepresentation.

Dr. Barker declares the pathology which I have advocated to be unsustainable by even the most recent researches of those whom we recognize as guides; he appears to object to the fact that I have not stuck closely to the dicta of our text-books, and hugged to my soul the tenets of a by-gone time as he has done. This is hardly fair. I strove to follow the advice of Dr. Billings when he says: "Have something to say, say it, stop when you have said it." Had I had no opinions of my own to offer you, had a practice in a large metropolis and in great hospitals taught me nothing during a period of thirty years, I should not have appeared before you. Let my adversary inform himself upon the recent views of pathologists upon this subject, and he will find that it is his views which are effete, not mine which are jejune.

So far as I can gather anything certain from his discursive paper, the pivotal idea of Dr. Barker's attack seems based upon the belief that I regard the lochial discharge as a poisonous fluid, which, by absorption, by abrasions in the genital tract, gives rise to puerperal septicæmia. I need not tell you that no such absurd idea ever obtained foothold in my brain or enunciation from my tongue. If his idea be this, he has been guilty of very superficial reading of my paper, and should not so easily have concluded that I was affected by

idiocy. Look at my essay, which is now in print, and you will see, what you already appreciate must be the fact, that I stated merely that the lochial discharge was a material ready to take on those alterations which are effected by micro-organisms of bad character, which, changing its nature, render it poisonous to the abraded tissues. I believe that you will find that the pathology which I have offered to you is abreast with the views of the advanced pathologists of Germany, France and Great Britain. As to the pathology of my adversary, Dr. John Thorburn, of Manchester, England, very justly expresses concerning it, I think, the accepted view of the profession when in a foot-note to an article upon "Metria," which appears in the *British Medical Journal* for August 11, 1883, he says: "It would be inexcusable not to make some reference to the very able papers of Dr. Napier, in the *Obstetrical Journal* for 1880, on puerperal fever. He, along with Fordyce Barker, defends the old position of a specific puerperal fever *sui generis*. The time limit imposed by our regulations allows no opportunity of consulting step by step such arguments as he adduces. I can only say that his invaluable collection of facts produces in me an opinion diametrically opposed to his own."

My critic upbraids me for want of thoroughness and for that sketchiness of detail with reference to my description of symptoms. I will merely say in answer to this that I intentionally assumed this style, as I was not preparing a lecture for a class of medical students, and that my paper was distinctly announced to be one upon "The Prevention and Treatment of Puerperal Septicæmia," and upon nothing else. I cannot but thank him for his kindness in comparing my style in this sketchy description of symptoms to that of Byron and Humboldt (I believe these were the authors with whom he compared me), but, alas! as I recall the passages to which he alluded, I am pained to confess that the similarity of style does not strike me so forcibly as it does my too partial friend.

Here let me draw the veil of pitying silence over the unfortunate allusion to the squib of Stepney and the relics of the Hotel de Cluny! We stand to-night upon ground consecrated to science by the dignified fathers of the New York Academy of Medicine, who have now passed away! We stand face to face with the terrible mortality which marks puerperal fever among us at this very moment!

And now, gentlemen, a few words as to the "prevention and treatment of puerperal fever," which is the only legitimate subject before us for discussion this evening; the only theme which should not at the very commencement of these exercises have been rigidly ruled out as irrelevant by our president.

How difficult is it in a large Body like this to keep a discussion properly directed to the points at issue! The crucial questions, Fellows of the Academy, which are before you to-night are these: 1. Are you to look upon puerperal septicæmia as a poison due to the development of micro-organisms, and are you by every means in your power to guard against the contact of these with genitalia of the puerperal woman? 2. When the disorder is developed, is it best for you to keep your patient semi-narcotized and quininized, while the distended abdomen is covered with stupes of turpentine or poultices, and await the result as has formerly been done; or are you to seek to counteract the septic process which has invaded the genital tract, by local applications? These are the momentous questions; the other points are non-essential ones, and, although important in some respects, sink into insignificance when compared with them.

Take, for example, the first of my suggestions as to cleansing the lying-in room and applying antiseptic solutions to its walls and floors before labor sets in. This seems to appear to some like one of the labors of Hercules, and a very valued friend of mine, one of the most eminent obstetric professors of this city, seems so firmly to keep his eyes fixed upon it as to allow it to draw his gaze away from others which are of tenfold its value. Now, gentlemen,

what is really the difficulty in doing this thing? In the cottages connected with the Woman's Hospital it is regularly done whenever a new patient comes in for laparotomy, which is, on an average, once a week; and whenever I operate in private practice, let the operation be as trivial as it may, I always insist upon its performance. A scrubber, and there are many women in New York who make such work a business, takes up the carpet and sends it to the naphtha cleaning works, or replaces it by rugs; she then scrubs the floor and furniture with a solution of carbolic acid or the bichloride of mercury. Then, covering a broom with a towel, she stands upon a pair of steps, and, dipping this in a bucket, she wipes off the walls and ceiling. The whole work of cleaning a chamber occupies a few hours. Dr. Lusk has said that he has never seen any good come from scrubbing furniture with an antiseptic solution—agreed; I have never seen it do any harm, and until I do so I shall feel that it is safer to resort to it. But, I assure you, I am not particularly enthusiastic about this cleansing of the chamber, nor do I regard it as by any means essential. If any one prefers to have his patient confined in a dirty room rather than a clean one, let him do so by all means; I do not gainsay it. If I need any defence for having pressed the claims of cleanliness in this regard, let it be found in the fact that he who offers rules for a system must aim high, not low; that, aim as high as he may, many will fall below the standard, and that, if a low level be assumed, no one will go above it and take a higher.

My second suggestion for prevention has reference to complete change of clothing, and the taking of an antiseptic bath by doctor and nurse before taking charge of a lying-in woman, if they have knowingly been exposed to the effluvia of septicæmia, erysipelas, scarlet fever, typhus, or any similiarly contagious affection. Will any one object to this as unnecessary or impracticable? I think not.

Yesterday, at 4 P.M., I saw in Stamford a very bad case of puerperal septicæmia; this afternoon, at 3, I performed Tait's operation in a very important case which could not be delayed. I ventured to do this only under these circumstances: this morning I took a hot bath of water strongly impregnated with salt, and after it shampooed my hair and beard thoroughly with a saturated solution of boric acid, scrubbed my hands thoroughly, by means of nail-brush, with a solution of the bichloride, 1 to 1,000, and changed every article of clothing which I had worn at the moment of exposure. The trouble was not great, nor was the process a disagreeable one. It may have done no good whatsoever, but I feel sure that it did no harm, and it certainly quieted my conscience and gave me a feeling of comfort that I could have obtained in no other way.

My third suggestion was that during labor a warm antiseptic injection should be administered to the patient by the nurse about every four hours, and that a towel wrung out of this warm solution should be laid over the vulva. Who objects to this? "If any, speak, for him have I offended." It is very soothing to the patient, and it is difficult to see how she could be injured by it.

My fourth suggestion merely relates to cleanliness of the hands on the part of doctor and nurse. The propriety of this I will not discuss.

No one will quarrel with my fifth and sixth, which merely requires the physician to attend intelligently and faithfully to the performance of the third stage of labor, and the examination for and closure of wounds about the vagina and ostium vaginæ.

I now come to the seventh suggestion—the use of vaginal injections every eight hours, beginning eight hours after delivery. The arguments which have been brought up against this practice since I read my paper have had great weight with me; I confess that I feel less firm in my convictions upon this point than I did, and that in future I shall examine the question carefully before I determine to adhere to my plan. You may ask, Why this change of

opinion? My answer is that I strive to mend the fault of yesterday with wisdom of to-day.

The rest of my rules will be so certainly agreed in that I cannot question the concurrence of all, even of the eminent gentleman, our president, who regards my efforts as so hurtful to progress and so damaging to the health of the community to whose medical guides I have made appeal.

A few words now, before closing, upon some of the means which I have suggested as to treatment. With reference to my present views upon the use of cutaneous refrigeration for the controlling of high temperature, however produced, and in the course of whatever disease occurring, I would, after a very extensive experience, say this: Were the laws of my country to prohibit a resort to this method, I would be unwilling to continue the practice of my profession, for I could not do so, relinquishing what I sincerely believe to be one of the most valuable therapeutic resources at the disposal of the physician.

With regard to intra-uterine injections, I fear that I have expressed myself in such a way as to allow it to appear that I resort to them with very little provocation and upon all occasions when hyperpyrexia supervenes after childbirth. No impression could be more erroneous. No one could have striven more than I have done to keep within proper bounds the indiscriminate use of this valuable but dangerous resource. Let me illustrate my feeling with reference to this subject in the following way: I believe that the operation of trachelorrhaphy, as introduced by my friend Dr. Emmet, is one of the greatest advances which a quarter of a century has seen in gynæcology. I believe that at the present moment it is doing a great deal of harm on account of its indiscriminate and too frequent performance, many seeming to believe that every woman who bears a child requires a resort to it. Does this militate against the great value of the procedure? Not at all. "*Uti sed non abuti*" might well have been written over its original description, as in olden times it was inscribed upon the case which held the lancet.

My friend, Dr. Barker, must here allow me to offer him a most full and sincere apology for not having accorded to him in my paper the credit which was his due in connection with the introduction of intra-uterine injections into obstetric practice. I know that he will freely forgive me when I state that the omission was due to ignorance on my part of the facts which he has stated tonight, and not to any intentional neglect.

Dr. Mundé has expressed the opinion that I have not sufficiently guarded my readers against the dangers of intra-uterine injections. As I recall my statements I cannot but feel that he is in error upon this point. I certainly strove, to the utmost of my capacity, to so depict these dangers as to put every man upon his guard concerning them.

I have not been surprised to notice, among other criticisms of the preventive measures which I have suggested, a tendency on the part of some to ignore the necessity for them, especially in private practice. That this would in all probability be done I suggested in my paper, and I came here this evening prepared to use some statistics which would invalidate this position. I shall not use those that I brought, however, but employ in their stead some which have been offered by the speakers of this evening. Dr. Hanks declares that 250 women died from puerperal septicæmia in this city last year; that is 250 to 1,000,000 inhabitants. The United States probably contains in round numbers 40,000,000 inhabitants, which would give us 10,000 deaths in one year, and in twenty years, which is about the average child-bearing time of women, 200,000 deaths. Surely this looks as if something should be done to lessen the mortality of this disease. Does the plan which I have suggested accomplish this result? Let Dr. Lusk answer. He has just told us that in Prague, before a similar plan was adopted—that is, before antiseptic midwifery

was introduced—they lost five per cent. of hospital puerperæ by septicæmia ; since then 1,100 women have been delivered without a single death. I hope that I am correct in my quotation of Dr. Lusk ; I think that I am—no death, against fifty-five in former times !

And now methinks I hear a whisper to this effect: “These are the statistics of hospitals ; the disease must be rare in private practice, for does not Dr. A. tell us that he, out of 500 cases, has had no deaths ; Dr. B. that out of 1,000 he has had none ; and Dr. C. that out of 1,500 he has met with only one.” Patients are constantly dying from this cause in private practice, nevertheless. It is now just two months since I read my paper, and during that time I have been called to five cases of puerperal septicæmia, four of them, at least, in the higher walks of life, and all four of the most desperate character. I prefer to state with whom these patients were seen, and I feel sure that my colleagues who called upon me will appreciate my motive and pardon me for doing so. The first case I saw with Dr. Gluck and Dr. Kucher ; the second with Dr. Hutchison, Dr. Crane, and Dr. Paine, of Brooklyn ; the third with Dr. Lyons, in which suppurative synovitis and abscesses had followed a miscarriage ; the fourth I was called to by Dr. Loewenthal, but could not attend ; and the fifth I saw yesterday in Stamford, with Dr. Janeway, of New York, and Dr. Philips and Dr. Harlburt, of the former place.

I have ventured to give the names of the practitioners with whom I saw these cases, to prove that they occur even under the most favorable circumstances as to social surroundings and medical care.

And now, gentlemen of the academy, let me thank you for the kind and courteous attention which you have given me. It is that attention and that courtesy which have emboldened me to detain you so long. I feel very sure that you will give full credence to two statements which I make in bidding you good-night: *First.* That I have no wish to be dogmatic and uncompromising in reference to the rules which I have suggested for the prevention and treatment of puerperal septicæmia. *Second.* That if venom has seemed to flow from my tongue it has not reached it from my heart, which has been entirely free from it ; and that if I have seemed to strike too trenchant blows at the honored head of our President, I have struck purely in self-defence at one for whom I yield to no man in respect, admiration, and affectionate regard.

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## SANITARY DEPARTMENT.

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IRON PIPES.—Captain Douglas Galton has shown the advantage of cast-iron pipes for drains of houses to his countrymen in England, who will persist in using stoneware drain-pipes. Cast-iron pipes, if cast sound, prevent leakage into the subsoil beneath a house ; they are almost as cheap as earthenware ; they are truer in bore, and, what is of even greater value, they are not liable to breakage or fracture.

ENGLAND.—By the Registrar-General’s Quarterly Return for the third quarter of 1883, the number of deaths registered in England and Wales was 113,118, equal to an annual rate of 16.8 per 1,000 of population ; with the exceptions of 1879 and 1881, the lowest rate since civil registration commenced in 1837. In 28 of the largest towns, including London,

and having an estimated population of more than eight and a half millions, the death rate averaged 19.9; in London it was 18.8. Of the whole 113,118 deaths, 30,331 were of infants under one year. The infant mortality, measured by the proportion of deaths under one year of age to births, was equal to 142 per 1,000. 17,869 resulted from zymotic diseases, of which diarrhœa was far the most fatal. To it were referred 8,389 deaths.

HEALTH OF CITIES.—Longevity and premature decay are doubtless influenced by the food and general habits of the people, and by temperature and other local atmospheric conditions, although all these may be largely modified and brought under control by attention to sanitary laws and appliances. Artificial atmospheres are, in fact, created in large cities according to the character of the buildings, the air space allotted in them to each inmate, and the mode of ventilation and warming, as well as by the width of the streets, the sewerage, and other sanitary arrangements. Moreover, the hereditary constitutions of the citizens become in after generations affected by the condition of the cities in which they and their forefathers have lived.

The facts and figures published point to many of the causes for a great variation in the death rate, as has been shown to exist in different cities. A high death rate will in most cases be found to be the companion of defective house accommodation, ventilation, water supply, sewerage, or scavenging. Thus, for instance, St. Petersburg, with a population of nearly a million, and the high death rate of 35.2 per 1,000, is without sewerage, and its water supply is taken from the river Neva, more or less contaminated by percolation from the subsoil. Cairo, with a death rate of 37 per 1,000, is supplied with water from the Nile, having no sewers, and the sewerage filtering through the subsoil into the Nile above the water intake. Vienna, with a death rate of 29.2 per 1,000, has an average of 60 people in each house, or twice as many as in Paris, while the rateable value of the houses in Vienna is only one-sixth more than those in Paris. Peking, with a death rate of 50 per 1,000, is without proper sewerage, water supply, street cleansing, or other proper sanitary arrangements.

A MODEL UNSANITARY HOUSE.—At the International Health Exhibition, one of the most amusing, and at the same time most instructive, of the objects exhibited will undoubtedly be the model, on a large scale, of a house, illustrating every kind of sanitary defect; pan water-closets with D traps, baths and housemaids' sinks in direct communication with the sewers, cisterns for drinking-water into which sewer gas is carefully supplied, badly made plumbers' fittings, unventilated rooms, smoky chimneys, and many other similar evils, will doubtless be fully represented among the apparatus of this house, and it will certainly be honeycombed with cess-pools, and undermined by leaky drains. This house will be contrasted with another, as perfect in every detail as the

combined skill of the committee entrusted with the task of carrying out this scheme can make it. This Committee consists, it is said, of Captain Douglas Galton, C.B. ; Professor Corfield, M.D. ; Mr. Rogers Field, C.E. ; Mr. Ernest Turner, C.E. ; Mr. W. H. Collins, C.E. ; and Mr. George Shaw, Master of the Plumbers' Company.

VITAL STATISTICS OF IMMIGRATION.—The following table gives the names of steamers, date of arrival, port of departure, number of passengers, number of deaths and births during the voyage from European ports to New York, for the month ending January 31, 1884.

	<i>Vessels.</i>	<i>From</i>	<i>Passengers.</i>	<i>Deaths.</i>	<i>Births.</i>
Jan.	1, Australia,	Hamburg,	379	1	1
"	3, America,	Bremen,	154		1
"	13, Frisia,	Hamburg,	303	1	1
"	14, Oder,	Bremen,	215	1	
"	14, Amsterdam,	Amsterdam,	72	1	
"	22, Salier,	Amsterdam,	309		1
"	25, St. Georgia,	Glasgow,	39	1	
"	26, Rhein,	Bremen,	262	1	
"	28, Zaandam,	Amsterdam,	81		1
"	29, Gellert,	Hamburgh,	448	1	
"	31, Gen. Werder,	Bremen,	356		1
			2,658	7	6

[Remainder of this department held for next issue.—ED.]

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## BIOGRAPHY.

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DR. JAMES MARSHALL AMBLER, U. S. N., born December 30, 1848. In 1877 he volunteered, by request of Navy Department, for service on the *Jeannette*, which was to be sent in search of a passage to the North Pole. Up to that time the idea of seeking fame among the frozen seas of the North had not been entertained by him ; but, not wishing to have his name coupled with a refusal where hardship and probable danger were involved, he promptly accepted. This he certainly would not have done had he known, as he soon afterward learned, that the same offer or request had been declined by others. It presented, however, an opportunity for a display of that manly stuff of which he was made. He did not, for this reason, recede from the responsibility he had assumed, but unremittingly bent every energy to secure success to the enterprise so far as in his power lay, and to his painstaking examination as to the physical qualifications of the personnel of the *Jeannette's* crew, to his zeal and forethought in providing the necessities of life under the peculiar conditions to which the ship's company were to be subjected, and to his wise hygienic and sanitary suggestions, may be ascribed for



the most part the vigorous health of the officers and men, enabling them finally to encounter unprecedented labor and exposure. The immunity from that terrific scourge of polar travelers, scurvy, in which the Jeannette expedition stands prominently alone, were there nothing else, should be a lasting memorial to his professional capacity and foresight. But the mouths of the survivors of that ill-fated expedition have opened to testify how grandly he rose to all emergencies. They portray him as the genial companion, the skilful surgeon, the accomplished physician and sturdy officer. Melville, when asked by the court whom of the expedition he would specially commend for his behavior, promptly replied, "Dr. Ambler," and he was unstinted in his praise of him. During the famous retreat over the ice Ambler was one of the leading spirits. He harnessed two half-starved Esquimaux dogs to a sled of his own contriving, on which were lashed the surgical instruments, medical stores and scientific records; and leaving them to follow in the rear with the sick, the doctor took his place in advance day after day, as chief of the roadmakers. He wielded a heavy sledge hammer like a Hercules, breaking down ice hummocks to level a road for the boats. It was related of him that he invariably, when the day's work began, took up the heaviest of the sledges, thus setting an encouraging example to the men. We see him laying this down for a moment to perform an iridectomy, one of the most delicate operations in eye surgery.

After De Long's boats had reached the Lena delta, and failing to find succor for three weeks or longer, the commander decided to send two of the strongest of his party in advance to seek aid. The main body traveled very slowly, most of them being scarcely able to walk at all, and having to transport the sick. De Long was able to walk only for five minutes at a time. Ambler was the strongest of the party, and the commanding officer selected him and Nindeman to go on ahead for succor and to save their own lives, if possible, both of them being capable of a long march. When this was communicated to the doctor, he told his commander that he thought that he ought not to leave his sick, as he preferred to share their fortunes to the end, and his going away would look like abandoning them. This doubtless touched the gallant De Long, whose first thought seems ever to have been his high duty to those under his command. Noros was then sent in Ambler's stead, and his life was saved. Ambler remained with his sick comrades to the last, and died with them. It is doubtful if the medical profession affords anywhere a finer example of heroism than this. Imprisonment on board an ice-bound ship for twenty-two months, a painful retreat over weary miles of rough ice, with half-frozen hands and feet, and then wandering about on an unknown shore for three weeks, reduced to a mere struggle for existence, yet not for a moment was blunted his keen sense of professional duty. Melville, who found the bodies, is of the opinion that Ambler was the last one to die. His frozen body was found in a sitting attitude, clothed in many suits of extra clothing, seizing in his right

hand De Long's pistol, taken from his dead commander's pocket; in solemn and faithful guard over his dead comrades. None will ever know the dreadful extent of his sufferings during those last hours, or possibly days, of his life, alone with his dead, starving, exhausted and hopeless. Faithful messengers sent by his grateful Country have brought home the mortal remains of this noble son to an aged mother, to lie at rest in his own village churchyard in Fauquier county, Va. Peace to him and her, and honor to the memory of this noble surgeon, whose life was given to his country and duty.—*Jour. Am. Med. Assoc.*

## PHARMACY AND THERAPEUTICS.

### A COMPARISON OF WEIGHTS, MEASURES, ETC., PREPARED BY REQUEST FOR CONVENIENCE OF READERS.

#### FRENCH WEIGHTS IN TROY WEIGHTS.

1 milligramme.....	equal to	1-65th grain.
1 centigramme.....	"	1-6th "
1 decigramme.....	"	1½ grains.
1 gramme.....	"	15 "
1 decagramme.....	"	150 "
1 hectogramme.....	"	1,465 "
1 kilogramme.....	"	14,720 "
1 myriagramme.....	"	145,824 "

#### FRENCH MEASURES OF LENGTH IN ENGLISH MEASURES OF LENGTH.

1 millimetre.....	equal to	1-1,000th metre.
1 centimetre.....	"	1-100th "
1 decimetre.....	"	1-10th "
1 metre.....	"	39 37-100th inches.
1 decametre.....	"	10 metres.
1 hectometre.....	"	100 "
1 kilometre.....	"	1,000 "
1 myriametre.....	"	10,000 "

#### FRENCH MEASURES OF CAPACITY IN ENGLISH MEASURES OF CAPACITY.

1 millilitre.....	equal to	15 troy grains water.
1 centilitre.....	"	150 "
1 decilitre.....	"	1,500 "
1 litre.....	" (1 qt.)	15,000 "
1 decalitre.....	"	150,000 "
1 hectolitre.....	"	1,500,000 "

NOTE.—1 grain troy is equal to 1 and 8-100ths grains in apothecary's weight.

#### TEMPERATURE AND WEIGHT.

1 lb. water at 60 deg. F. ..	equal to	79-100ths pint, or 6.067 22-100ths minims.
1 oz. " " ..	equal to	1 5-100ths fl. oz., or 505 60-100ths minims.
1 gr. " " ..	equal to	1 5-100ths minims.
1 fl. drachm water at 60 deg. F. ..		56 96-100ths grains.
1 fl. oz. " " ..		455 69-100ths "
1 fl. gallon " " ..		231 cubic inches.
1 fl. pint " " ..		28 87-100 "

#### TEMPERATURES.

CENTIGRADE.—To convert Centigrade (C.) or Celsius to Fahrenheit—multiply by 9, divide by 5, and add 32. Thus: 40 deg. C. multiplied by 9 equal 360 deg.; divide by 5, equal 72 deg.; add 32, equal 104 deg. F.

REAUMUR.—To convert Reaumur (R.) to Fahrenheit—multiply by 9, divide by 4, and add 32. Thus: 40 deg. R. multiplied by 9 equal 360 deg.; divide by 4, equal 90; add 32, equal 112 deg. F.

#### PERCENTAGE OF ALCOHOL IN WINES, LIQUORS ALES, ETC.

Strong Port 25, Madeira 24, Sherry 19, Malaga 17, Brandy 53, Rum 53, Gin 51, Whiskey 52 to 54, Burgundy 14, Sauterne 14, Champagne 12 to 14, Tokaya 9, Rudesheimer 10, Catawba 8 to 10, Cider 6 to 9, Mead 7, Burton Ale 8, Scotch Ale 6, Brown Stout 6, Porter 4, Strong Claret 17, Chateau Latour 9, Hock 9 to 12, Lachryma Christi 19, Vin Ordinaire 10.

### COSMETICS AND POISON.—

#### LOTIONS.

##### Preparation.

##### Main Constituents.

Circassian Cream .....	Corrosive sublimate.
Kalydor .....	Corrosive sublimate and potash.
Milk of Roses.....	Corrosive sublimate, rose water and ol. almond.

#### ENAMELS.

Laird's Bloom of Youth .....	Oxide zinc and calcium.
French's Grease Paint.....	Oxide zinc and calcium.
Gouraud's Oriental Cream .....	Calomel and water.
Hagan's Magnolia Balm .....	Oxide zinc.
Bradford's Enameline .....	Oxide zinc.
Eugenie's Favorite.....	Carbonate lead.
Snow White Enamel.....	Carbonate lead.
Snow White Oriental Cream .....	Carbonate lead.

POWDERS.

<i>Preparation.</i>	<i>Main Constituents.</i>
Pearl White .....	Subnitrate bismuth.
Flake White .....	Carbonate lead.
Saunders' Face Powder .....	Oxide of zinc.
Complexion Powder .....	Bismuth subcarbon.
Riker's Face Powder .....	Carbon, calcium and zinc.

ROOSEVELT (N. Y.) HOSPITAL FORMULÆ (*Druggists' Circular*).—

COUGH MIXTURES.

*Mixture No. 1.*

- ℞. Sulph. morphine..... gr. 1-16  
 Chloride ammon..... gr. 2½  
 Syrup tolu ..... ℥ 15  
 Water s. q. to ..... ʒ ij.  
 M. Dose, ʒ ij.

*Mixture No. 2.*

- ℞. Fl. ex. wild cherry bark ℥ 5½  
 Sol. cyan. pot. { 16 grs. } aa  
 Sol. sul. morp. { to oz. } ℥ 15-16  
 Simple syrup s. q. to.. ʒ ij.  
 M. Dose, ʒ ij.

*Codeine Mixture.*

- ℞. Codeine ..... gr. 1-6  
 Dil. phosphoric acid. .. ℥ v.  
 Simple syrup, s. q. to.. ʒ j.  
 M. Dose, ʒ j.

*Ipecac Mixture.*

- ℞. Wine of ipecac. .... ℥ v.  
 Muriat. of ammon. .... gr. v.  
 Camphor water, s. q. to ʒ ss.  
 M. Dose, ʒ ss.

*Antimony Mixture.*

- ℞. Tart. antim. and potass. gr. 1-24  
 Sulph. morph..... gr. 1-10  
 Syr. wild cherry bk. s. q. ʒ j.  
 M. Dose, ʒ j.

*Sanguinaria Mixture.*

- ℞. Tinct. sanguinaria .... ℥ v.  
 Carbon. ammon..... gr. v,  
 Syr. wild cherry bk. s. q. ʒ j.  
 M. Dose, ʒ i.

*Emphysema Mixture.*

- ℞. Iodid. potass. .... gr. v.  
 Tinct. belladon. .... ℥ v.  
 Comp. spir. ether. .... ℥ xlvi.  
 Magend. sol. morph. .. ℥ iiss.  
 Water, s. q..... ʒ ss.  
 M. Dose, ʒ ss.

*Atropine Mixture.*

- ℞. Sulph. atropine .....gr. 1-128  
 Sulph quinine ..... gr. iij.  
 Dil. sulph. acid, s. q.  
 Simple syrup, s. q. to.. ʒ j.  
 M. Dose, ʒ j. in water.

*Children's Mixture.*

- ℞. Paregoric..... ℥ x.  
 Muriate ammon ..... gr v.  
 Syrup squills. .... ℥ x.  
 Syrup tolu s. q. to .... ʒ j.  
 M. Dose, ʒ j.

*Hydrobromic Mixture.*

- ℞. Dil. hydrobromic acid 10 p. o.  
 Spirits chloroform, of ea ℥ iv.  
 Syrup squills ..... ℥ viii.  
 Paregoric, s. q. to .... ʒ ij.

*Bromide and Hyoscyamus Mixture.*

- ℞. Bromide potass ..... gr xx.  
 Tinct. hyoscyam..... ʒ ss.  
 Camphor mixt., s. q. to ʒ ss.  
 M. Dose, ʒ ss.

*Squills Mixture.*

- ℞. Tinct. squills ..... ℥ v.  
 Wine of ipecac. .... ℥ iv.  
 Syrup of tolu ..... ℥ xx.  
 Water, s. q..... ʒ j.  
 M. Dose, ʒ j. for child one year old.

*Chloride of Ammon. Mixture.*

- ℞. Chloride ammon..... gr. ij.  
 Syrup wild cherry bark ʒ ss.  
 Water, s. q. to..... ʒ j.  
 M. Dose, ʒ j. for child one year old.

*Carbon. and Iodide Ammon. Mixture.*

- ℞. Carbon. ammon ..... gr. iij.  
 Iodide ammonium .... gr. ij.  
 Simple syrup ..... ʒ j.  
 M. Dose, ʒ j.

AGARICINE.—The night-sweats of phthisical individuals have been the subject of much consideration, more especially from a therapeutical point of view. The number of remedies which are enumerated in Ringer's "Handbook" is sufficient witness of this truth. M. Seifurt of Wurzburg has recently made an interesting study of the active principle of white agaric—agaricine. After many trials, he has come to the conclusion that pills containing five milligrammes of the alkaloid give the best results in checking the excessive secretion of sweat. As with so many other drugs, the consumer becomes accustomed to agaricine, it is therefore advisable to begin with half a pill and to gradually increase the dose. Account must also be taken of the time at which to administer the remedy, as Seifert has shown that agaricine does not produce its effects for five or six hours. Not only is the excessive perspiration controlled, but the cough becomes less frequent, and sleep is more tranquil and continuous. Hypodermic injections have been employed with success, but they are not recommended on account of the production of disagreeable sensations at the site of injection.

THE DRASTIC AND VESICATING ELEMENTS OF CROTON OIL SEPARABLE.—The partial or variable solubility of croton oil in alcohol is a long-observed fact. The *Pharmacographia* says: "Its solubility in alcohol (.794) appears to depend in great measure upon the age of the oil and the greater or less freshness of the seeds from which it is expressed, oxidized or resinified oil dissolving the most readily."

M. Harold Senier has succeeded in separating completely the vesicating and purgative principles from each other by means of alcohol. He says: "When alcohol (specific gravity 794-800) is mixed in equal volumes with English pressed croton oil perfect and permanent solution takes place, and this is equally true when any less quantity of alcohol is used. When, however, the proportion of alcohol to oil is as seven to six, or any larger proportion of alcohol, then a part of the croton oil separates, and cannot afterwards be dissolved by any amount of alcohol. The other portion, on the other hand, is soluble in all proportions of alcohol."

The remarkable feature of the observations is that the alcohol-soluble portion appears to contain all the vesicating principle, and the insoluble the cathartic element of the crude oil. Dr. Meek experimented with the non-vesicating, and found that doses of from one-tenth to one-half of a drop produced the cathartic action of croton oil without any irritation or other disturbance, the smaller dose being a mild, and the larger a powerful, purgative, unaccompanied by any unpleasant symptoms. The vesicating (soluble) oil in the same doses gave no purgation, but occasioned a considerable amount of nausea and irritation. The latter readily produced pustulation when applied to the skin, the other did not. Further study indicated that the real vesicating element was one of the combined fatty acids, but the author has not yet succeeded in isolating it.

The above observations if supported by clinical experience will greatly increase the value of this remedy as a purgative.

ANTAGONISM OF ALCOHOL AND STRYCHNIA.—At the last meeting of the *Société Française de Tempérance*, Dr. Dujardin-Beaumetz read a communication on the "Treatment of Alcoholism by Strychnia" (rather a curious subject, by the way, for a mixed lay and medical audience), in which he noticed the recommendation made some time since by Dr. Luton, of Rheims, that strychnia being now recognized as the appropriate medical agent for alcoholism, the Government should authorize its addition to alcoholic beverages, in order to guard against their ill effects. Dr. Dujardin-Beaumetz, however, demonstrated, as the result of his experimental investigations and of observations made on man, that, although strychnia may be advantageously used in com-

bating the symptoms of intoxication and acute delirium caused by alcohol, it is powerless as regards the multiple alterations in different organs which are the results of the presence of alcohol in the different tissues of the economy. Strychnia, therefore, is only, at the very most, a therapeutical agent, capable of causing the disappearance of mitigation or some of the symptoms induced by the abuse of alcoholic drinks.—*Medical Times and Gazette*.

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## REVIEWS.

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EXCESSIVE VENERY, MASTURBATION AND CONTINENCE; THE ÆTIOLGY, PATHOLOGY AND TREATMENT. By JOSEPH W. HOWE, M.D. New York: Bermingham & Co. 1884. Pp. 299.

This work is made up chiefly of the material used in several courses of lectures, to which are added the testimony and experience of many of the best European and American experts. It is not so good a book as that of Gross or Acton; it is more comprehensive and practical than the work of Hammond; but, for many reasons, it is not a book which can be commended.

The pathology is indefinite, vague and often erroneous. The statements, so positively made, are often questionable and doubtful as to accuracy. It abounds in phrases that belong rather to newspaper advertisements than to medical science; it teaches the mischievous and untrue doctrine, that continence leads to insanity and disease; it gives erroneous views as to the wide prevalence of masturbation among women; it claims that varicocele is chiefly due to sexual abuse or excess; and shows that the author has very many peculiar views which he cannot sustain, or has not sustained in this volume.

The merits of the book are that it is free from every manifestation of an erotic style; it is written to do good, and there is in it a familiar orthodoxy in regard to treatment. It is in no sense an original work (apart from some of the vagaries and hobbies of its author); the style is below that of respectable authorship, but it may prove to be a good "pot boiler," for the title of the book will induce many to purchase it.

A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS, DESIGNED AS A MANUAL FOR PRACTITIONERS AND STUDENTS IN MEDICINE. By AMBROSE L. RANNEY, A.M., M.D., Professor of Practical Anatomy in New York Post-Graduate Medical School, Etc. Third edition, thoroughly revised, enlarged, and profusely illustrated. 8vo, pp. 608. New York: Wm. Wood & Co. 1884.

When this work first made its appearance, this JOURNAL declared of it, that it represented, in the field of Surgery, all that was represented in the field of Practice of Medicine by Da Costa's classic work on diagnosis. The same opinion is again given, with pleasure. The present edition bears evidence of much excellent labor, and the work can be confidently recommended to the profession.

THE PATHOLOGY AND TREATMENT OF GONORRHOEA. By J. K. MILTON. Fifth edition. Wm. Wood & Co.

This work, though dogmatic and arbitrary, as well as chaste and elegant in its

style and elaboration, is largely original. It is the outgrowth and record of a large venereal practice in the great city of London. Those who have exhausted their old ideas and prescriptions will find it very useful and suggestive. Wild oats are sown at all seasons; it has always been so; and as long as the old Adam is a part of the new, it will so continue. Gonorrhœa is the pioneer as well as one of the characteristics of civilization, and as long as this is the case, doctors are always glad to know how to treat its victims. This book, for such a purpose, will be useful and convenient. It is a valuable one.

FIRST ANNUAL ADDRESS BEFORE THE WASHINGTON (D.C.) OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY. By SAMUEL G. BUSEY, M.D., President. October, 1883. Reprint from the *American Journal of Obstetrics*, N. Y. New York: W. Wood & Co. 1884.

This is a very excellent paper. It is practical, philanthropic (in the highest sense), scientific, and is prepared with great care and fidelity.

The object of the author is, in brief, the condemnation of the operation of craniotomy. He condemns, after a careful and liberal examination of all of the views of its advocates, a resort to this barbarous proceeding.

It has always been claimed, and usually admitted, when "turning" is impossible, and a resort to the vectis and forceps impracticable, that craniotomy is not only justifiable, but imperative; and while, in obedience to the teachings of the Roman Catholic Church, many excellent obstetricians have declined to practice craniotomy, and many equally accomplished have so postponed the performance of this operation as to imperil, if not to sacrifice, the mother as well as the child, it has certainly been the teaching in the profession, that craniotomy must be performed, when delivery *per vias naturales* is impossible on account of malformation of mother or child, and when "turning" is impossible, and the use of the vectis or forceps is productive of no effective results. Indeed, the majority of the best teachers teach now, and have taught, that, under such circumstances, the practitioner is justified in giving up the child, and in sacrificing its life to save "the more valuable life" of the mother.

So much for the professional position and belief which the author undertakes to remove and subvert. His belief is that craniotomy is unjustifiable. He shows, in defence of this view, that, in timely Cæsarean sections, 74 per cent. of women and 84 per cent. of children have been saved; and that in the Porro-Cæsarean operation, 23 per cent. of mothers and all the children have been saved. These results are justly comparable with 84 per cent. of recoveries of women, and the loss of all of the children after craniotomy.

If these statistics are to be accepted as those which can, reasonably, be expected to obtain under the present improved treatment of the mother in cases of craniotomy, it must be admitted that the author of this address has fairly made his point, and proved that the operation of craniotomy should be regarded as barbarous, and unjustifiable. So may it be.

VOICE, SONG, AND SPEECH: A PRACTICAL GUIDE FOR THE USE OF SINGERS AND SPEAKERS; FROM THE COMBINED VIEW OF VOCAL SURGEON AND VOICE

TRAINER. By LENNOX BROWNE, F.R.C.S., and EMIL BEHNKE. New York : G. P. Putnam's Sons. 1883.

A great part of this work is devoted to an examination of the anatomy and physiology of the chest and larynx, and to the laws of sound! All of this material is "padding," and is entirely useless, as it is to be found in other and better works. A large portion (39 pages) is given to the discussion of the laryngoscope and its uses! Much of it is devoted to the hygiene of the voice and the vocal apparatus; to the habits of the singer; to vocal ailments, and to defects of speech.

It contains a number of old woodcuts, or reproductions of them, and gives thus poor designs of what has elsewhere been presented well. There is some evidence of original research, and there are some excellent photographs of the larynx during the production of high notes. It is a book that may please the people, but all that is original, or that is germane to the subjects named, could have been presented in a few pages. This loss to the authors would have been great gain to the readers. The volume will doubtless be read generally by vocalists and those of their circle. It has a quasi scientific appearance and air, and will give to vocalists some conception of the organism by which they earn a livelihood.

A YEAR-BOOK OF THERAPEUTICS FOR 1883. Edited by R. W. AMIDON, M.D. 8vo., pp. 247. Price, \$1.50. New York : G. P. Putnam's Sons.

This book is a compilation only, and a very poor one. It is not comparable with Brinton's Compendium, or Braithwaite; it is limited in scope, inaccurate and inefficient in execution, and sold at a price more than double of that asked for much better and more useful information published in the medical journals indicated. Books of this class are indeed a nuisance, and reduce the work of authorship to almost the level of that of the scavenger. It is to be hoped that they will disappear entirely.

PER-OXIDE OF HYDROGEN. By A. E. PRINCE, M.D., Jacksonville, Ill. Reprint from *St. Louis Medical and Surgical Journal*, March, 1884.

The object of this paper is to demonstrate the great value of per-oxide of hydrogen in the treatment of suppurative conjunctivitis and mastoid abscess; with a report of two cases.

The treatment was by injection into the suppurating cavities, and the results were simply marvelous. Indeed, in the cases cited, and in cases similar, any other treatment is confessedly unsatisfactory, if not wholly inefficient; and if the author is as entirely correct in his views as he has been in his practice, no eulogy would be extravagant of the effects of this agent in suppurating cavities. His paper, with the recent valuable paper of Dr. E. J. Nunn, of Savannah, Ga., on the same subject, really marks an era in therapeutics.

A PLEA FOR THE CURE OF RUPTURE; OR, THE PATHOLOGY OF THE SUBCUTANEOUS OPERATION BY INJECTION FOR THE CURE OF HERNIA. By JOSEPH H. WARREN, A.M., M.D. Boston : James R. Osgood & Co.

This is, in mechanical execution, a very handsome pamphlet. It is a very

ingenious and plausible argument for the author's favorite operation, injection of the fluid extract of white oak bark to produce adhesive inflammation. He gives a table of twenty-eight cases of all varieties of hernia.

REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH FOR WEST VIRGINIA FOR 1881, 1882, 1883. Wheeling, West Virginia.

This volume is a great credit to all concerned in its production, and it reflects conspicuous honor upon the Secretary of the Board, Dr. James E. Reeves, of Wheeling, West Va. Indeed, while many have done good work for the volume, its design, the elaboration of the materials for it, its general conception and handsome execution, are due almost entirely to the Secretary. The papers presented are all good, some excellent; and a few of a very high order of merit. The readers of this journal will have the pleasure of reading some of them very soon. Some were ready for this number, but the papers and debates on puerperal fever rendered their insertion impracticable. This report is one of the best ever published. The report strongly shows that the execution of law regulating the practice of medicine may be safely lodged with a State Board of Health. It will be very useful as a campaign document in those States that are now struggling for a State Board of Health, particularly in Ohio and Pennsylvania. It shows not only thorough medical registration and police in West Virginia, but also great attention to sanitary matters, including studies of the diseases of domesticated animals. This shows that a State Board is useful to farmers as well as it is to doctors: indeed, useful to all classes of the people.

THE HIP AND ITS DISEASE. By V. P. GIBNEY, A.M., M.D., Professor of Surgery New York Polyclinic; Asst. Surgeon Hospital for the Ruptured and Crippled, Etc. New York: Bermingham & Co. 1884. Pp. 412.

This is a very useful work. It is comprehensive and yet concise. The chapter on bursitis is highly creditable, and the material, so far as is known, is original in appearance and arrangement. The book is worth having, for this chapter, even though the rest were valueless, which is very far from being the case. That an author on the hip should be "hipped" as to the treatment of hip disease is not strange, but it is true. Dr. Gibney seems to look to rest, as the sailor looks to his sheet anchor in the storm, as the only hope, the mainstay, the only salvation. Mechanical treatment he repudiates in comparison, and operative procedure is apparently wholly repudiated. It is a good work, nevertheless, and one which will be a good and positive addition to the best library.

THE MEDICAL DIRECTORY OF PHILADELPHIA FOR 1884. Edited by SAMUEL B. HOPPIN, M.D. Philadelphia: P. Blakiston, Son & Co., 1884.

This book will be useful to many. It is neatly printed and conveniently arranged. It is said, however, to be inaccurate by the Philadelphia press, and if this be so, such defects will, of course, be speedily corrected. It is hoped that the publishers will be amply repaid for their labor and outlay.

PALLISSER'S USEFUL DETAILS. By PALLISSER & Co., Bridgeport, Conn.

This is really a series of handsome maps and charts, by scale, of a great variety of dwellings, in every variety of style and architecture. A most useful



and valuable collection. Every doctor who wishes a Queen Anne dwelling—and, of course, in these days of few doctors, large practice and abundant receipts, every doctor wishes one—should send for maps and drawings. Any plan can be and will be faithfully given and sent.

#### BOOKS AND PAMPHLETS RECEIVED.

LEGAL MEDICINE. By Charles Meymott Tidy, M.B., F.R.C.S. Vol. III. New York: William Wood & Co., 56 and 58 Lafayette Place. 1884. Pp. 321.

ANNUAL REPORT OF THE HEALTH DEPARTMENT OF THE CITY OF BROOKLYN, N. Y., FOR 1883. Brooklyn: Printed for the Corporation. 1884.

HUTCHINSON'S ILLUSTRATIONS OF CLINICAL SURGERY. Fasciculus xvi. Plates 59 to 62. Philadelphia: P. Blakiston, Son & Co. Price, \$2.50.

ANNUAL REPORTS 1883. Department of Health of the City of Charleston, S. C. Charleston, S. C.: *The News and Courier* Book Presses. 1884.

THE MEDICAL DIRECTORY OF PHILADELPHIA FOR 1884. Edited by Samuel B. Hoppin, M.D. Philadelphia: P. Blakiston, Son & Co. 1884. Price, \$1.50.

OPTICO-CILIARY NEUROTOMY, AND MISCELLANEOUS SURGICAL CASES. By Francis L. Parker, M.D. From Transactions of the South Carolina Medical Association, 1882.

SURGICAL AND OTHER CASES OF DISEASE OF THE EYE, EAR, THROAT AND NOSE. By Francis L. Parker, M.D. From Transactions of the South Carolina Medical Association, 1882.

FIRST, SECOND AND THIRD ANNUAL REPORTS OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF WEST VIRGINIA FOR THE YEARS ENDING DECEMBER 31ST, 1881, 1882, 1883. By Authority. Wheeling: Chas. H. Taney, State Printer. 1884.

ANNUAL ANNOUNCEMENT OF THE COOPER MEDICAL COLLEGE, SUCCESSOR TO THE MEDICAL COLLEGE OF THE PACIFIC. San Francisco. Session of 1884. San Francisco: *Alta California* Book and Job Printing House, 529 California Street. 1884.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI, at its Twenty-Sixth Annual Session held at Jefferson City, Mo., May 15, 16 and 17, 1883. St. Louis: Ev. E. Carreras, Steam Printer, Binder and Publisher, 117 and 119 Locust Street.

PALLISSER'S USEFUL DETAILS. By Pallisser, Pallisser & Co., Bridgeport, Conn.

THE RECIPROCAL ATTITUDE OF THE MEDICAL PROFESSION AND THE COMMUNITY. Alexander Hutchins, A.M., M.D. Brooklyn, N. Y.

CLINICAL SURGICAL CASES. By Francis L. Parker, M.D. From Transactions of the South Carolina Medical Association, 1883.

METHODS OF MEDICAL INSTRUCTION. By Herman Knapp, M.D., New York.

PER-OXIDE OF HYDROGEN. By A. E. Prince, M.D., Jacksonville, Ill.

NEW YORK STATE MEDICAL ASSOCIATION, FOUNDED FEBRUARY, 1884.

GALVANIC BATTERIES IN MEDICINE. By Drs. Julius Radisch and Geo. W. Jacoby, N. Y.

FIRST ANNUAL ADDRESS. By S. C. Busey, M.D., Washington, D.C.

CONTAGIOUS AND INFECTIOUS DISEASES. CIRCULAR No. 2. By Joseph Jones, M.D., New Orleans, La.

ARREST OF DEVELOPMENT, BY INTRA-UTERINE PRESSURE. By H. F. Hendrix, M.D., St. Louis, Mo.

CIRCULARS, BUREAU OF EDUCATION. Washington, D.C.

ANNUAL ADDRESS BEFORE AMERICAN ACADEMY OF MEDICINE. By Henry O. Marcy, M.D., President, Boston, Mass.

REMOVAL OF THE OVARIES. By Thomas H. Hawkins, M.D., Denver, Col.

COLLEGE FOR MEDICAL GRADUATES, St. Louis, Mo.

ANNUAL REPORT OF NEW YORK ORTHOPÆDIC DISPENSARY AND HOSPITAL.

RECENT PROGRESS IN DISEASES OF THE NERVOUS SYSTEM. By Talbot Jones, M.D., St. Paul, Minn.

TWENTY-FOURTH ANNUAL REPORT STATE ASYLUM FOR INSANE CRIMINALS, AUBURN, N. Y.

IS EXTIRPATION OF THE UTERUS JUSTIFIABLE? By A. Reeves Jackson, M.D., Chicago, Ill.

RECIPROCAL ATTITUDE OF THE MEDICAL PROFESSION AND THE COMMUNITY. By Alexander Hutchings, M.D., Brooklyn, N. Y.

HYGIENIC INSTITUTES. By George A. Smyth, M.D., Burlington, Vt.

PHYSICIANS FORMULARY OF SUGAR-COATED PILLS AND STANDARD PHARMACEUTICAL PREPARATIONS. By Wm. P. Warner & Co., Philadelphia, Pa.

MEDICAL ANNALS OF BALTIMORE. 1884.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY. St. Louis, Mo.

SHAKESPEARE AS A PHYSICIAN. By J. P. Chesney, M.D., St. Joseph, Mo. St. Louis: J. H. Chambers, Publisher.

ANEURISM OF THE FEMORAL ARTERY. By W. O. Roberts, M.D., Louisville, Ky.

## MISCELLANEOUS.

## THE SIMS MEMORIAL FUND.

TO THE MEDICAL PROFESSION AND OTHERS THROUGHOUT THE WORLD :

THE great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynæcological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill, are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynæcological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the City of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to this journal which has been constituted the treasury of this fund—*The Medical Record*, New York.

	FORDYCE BARKER, M.D., Chairman.
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William M. Polk, M.D., New York.	J. T. Searcy, M.D., Tuscaloosa, Ala.
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T. A. Reamy, M.D., Cincinnati, Ohio.	E. A. Woodward, M.D., Brandon, Vt.
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R. Beverley Cole, M.D., San Fr'sco, Cal.	A. J. Stone, M.D., St. Paul, Minn.

Other names may be added to this list from time to time. Over \$4,757 paid in.

PHTHISIS CONVEYED FROM MAN TO DOGS.—In the *Archives of Medicine*, Dr. E. G. Janeway relates a number of cases of phthisis, illustrating its possible contagiousness. Among others was the case of a phthisical young man who kept a pet dog. He was accustomed to sleep with the dog nestling in his arms. The animal became affected with a cough, and subsequently died. Another dog shared the same fate; a third dog suffered from a cough, but its owner died of phthisis, and the dog subsequently recovered.—*Medical Record*.

CARBOLIZED SAWDUST IN ANTISEPTIC SURGERY.—Mr. H. P. Symonds, Surgeon to the Radcliffe Infirmary, advocates the use of this material as a dressing for wounds. He says: "One of the drawbacks of the usual antiseptic dressing is the rapidity with which the discharges come through on the first day or two after operation, often necessitating the redressing of the case within a few hours. To prevent this, and yet not to interfere with the aseptic condition of the wound, is a distinct advantage both to the patient and the surgeon. The material I have used recently in a considerable number of cases is coarse sawdust, soaked in (1 in 10) solution of absolute phenol and spirit of wine, then allowed to dry slightly, so that the spirit may evaporate, leaving the sawdust charged with carbolic acid. When used it is enclosed in a bag made of several layers of gauze, and applied outside the deep dressing, the usual external dressing being put over it. The sawdust thus takes the place of the padding of loose gauze which is generally used. Its absorbent power is very great, and it has the additional advantage of keeping up an equable pressure on the divided tissues. I find that fourteen ounces of sawdust will readily absorb about one pint of liquid." He reports five cases, two of amputation, two of operation for tumor of the mammary glands, and one of compound dislocation of the elbow, in which it was used. In all these cases primary union took place without any formation of pus. In only one did the temperature reach 100°, and that on the day after operation, after which it became normal. "I have not quoted these cases as being at all remarkable, but merely as common instances in antiseptic surgical practice in which the sawdust dressing was used. Surgeon-Major Porter, in *The Surgeon's Pocket-book*, states that he has used sawdust as a dressing in suppurating offensive wounds; but I am not aware that it has been tried, when prepared in the way I have described, in antiseptic dressing. The three points in its favor are its powerful antiseptic qualities when saturated with carbolic acid, its great absorbent power, and its adaptability to any surface. I may add that the sawdust should be coarse, as I find that if it is very fine it passes through the gauze and irritates the skin."—*Lancet*.

LISTER AND THE SPRAY.—Dr. Henry Gray Croly publishes the following letter from Mr. Lister on this subject in the *Medical Press*: "I have not given up the use of the spray, although I certainly regard it as the least important part of our antiseptic arrangements. Whatever other good it may do, it is a very mild form of antiseptic irrigation, and tends to keep the *entourage* of the wound, including the surgeon's hands and instruments, pure. But if I had not a spray producer at hand, I should not on that account omit other elements of antiseptic treatment. I still use the spray in changing dressings, so long as the wound is not merely superficial. But far more important than using the spray is it to make a point of covering the wound with some pure aseptic material before beginning to wash the parts which were covered with the edge of the dressing only, and were, therefore, impure. In other words, I believe one of the commonest causes of failure is dabbing alternately the impure surrounding parts and the pure wound with the same piece of rag, which, though moistened with carbolic lotion, cannot work miracles.

THE DIAGNOSTIC VALUE OF THE BACILLUS TUBERCULOSIS.—Dr. Austin Flint, at a meeting of the New York Medical and Surgical Society, stated that he had made this question a subject of clinical study; and, so far as his experience had gone, it confirms the value of the presence of the bacilli in the sputa as positive proof of phthisis, their absence being of more or less value in the exclusion of that disease, and the importance of their comparative abundance and scarcity as bearing on the question as to whether the disease was or was not actively progressing.—*Maryland Medical Journal*.

THREE CALCULI, weighing collectively 414 grains, were removed from the urethra and neck of the bladder, by Dr. J. W. Howe, who reports the case to the New York Surgical Society.

MADRAS'S GREEN SUN.—Some excitement is stated by the Indian papers to have been caused among the people of the Madras Presidency by the fact of the sun having recently presented a bright green appearance, particularly near the time of setting. Prof. Michie Smith, in commenting upon this phenomenon, observes that as far as he can discover the appearance of a green sun is very uncommon. Mr. Lockyer, however, once observed the sun to be of a vivid green when seen through the steam of a little paddle boat on Lake Windemere, and this circumstance, he thinks, points to a solution of the difficulty, and shows that the cause of the appearance is an unusual amount of aqueous vapor in the atmosphere, existing as actual vapor, and not condensed into clouds. Some experiments with the spectrum, of which Prof. Smith gives the details, appear to confirm this hypothesis.—*London Daily News*.

THE INSANE CANNOT COMMIT SUICIDE.—The Supreme Court of the United States has decided that a policy of life insurance is not made void by the suicide of the insured person while insane. The insured person in the case that came before the court was Israel Ferguson, and the insuring company was the Manhattan Life. Ferguson hanged himself in Central Park, on April 14, 1876, and the company refused to pay, on the ground that it was expressly provided in the policy that if the insured should die by suicide the policy should be null and void. In the Circuit Court for this district judgment was rendered for Ferguson's heirs, and upon appeal the Tribunal of Last Resort has affirmed this judgment, with costs and interest. The Supreme Court holds that self-killing by an insane person is not a death by suicide within the meaning of the condition inserted in the policy. The brief report of the decision received from Washington does not show in what way the insanity of Ferguson was established before the court. The decision is one of peculiar importance, even if it refers only to the suicide of persons whose insanity is admitted, and can easily be proved. But there are eminent men who hold that the act of suicide alone is sufficient proof of insanity, and that no perfectly sane man destroys his own life. If every person who commits suicide is insane, then, under this decision, it is useless to insert in any policy of insurance such a condition as was found in Ferguson's policy, and an insurance company will save time and money by promptly settling with an insured suicide's heirs.

HOW TO SLEEP ON A RAILROAD TRAIN.—Many weary persons have tried to solve this problem, and have tossed about for hours in restless disappointment. Dr. Outten, a German physician, has applied the laws of physiology to the matter and announces (*Allg. Central Zeitung*) a satisfactory solution of it all. If a person lies down with his feet toward the engine, the movement of the train tends to draw the blood from the brain to the feet, cerebral anæmia is produced, then sleep. If, on the other hand, the person lies with his head nearer the locomotive (as is the custom in Germany), the movement of the train produces a cerebral hyperæmia incompatible with sweet repose. Dr. Outten has verified his view with many experiments.

INEQUALITY OF LIMBS AS TO LENGTH.—A member of the Royal College of Surgeons states in *Nature* that of seventy well-authenticated skeletons which he examined, the lower limbs were equal in length in only seven instances; the right leg was longer in twenty-five cases, and the left in thirty-eight instances. It is claimed, therefore, that this will, in persons walking without knowing their

surroundings, make their step longer with one limb than with the shorter one, and thereby tend to produce traveling in a circle, as people do when lost in the woods. In most of the skeletons referred to the right arm was longer than the left.

PROFESSOR, to class in surgery: "The right leg of this patient, as you see, is shorter than the left, in consequence of which he limps. Now, what would you do in a case of this kind?" Bright student: "Limp, too."

THE NUMBER OF PHYSICIANS IN NEW YORK CITY.—Some special inquiries having been made of us regarding this, we would say that the total number of physicians and surgeons in New York State in 1880, according to the United States Census, was 9,272. This number has now undoubtedly swollen to 10,000. In what, for distinction's sake, may be called the "Physician's Medical Register for 1883-4," a list of only 2,684 names is given, which number represents the regularly educated physicians in affiliation with regular medical societies. The remainder are composed of homœopaths, of whom there are probably 500 or 600 in the State, eclectics and nondescripts.—*Ex.*

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## MEDICAL NEWS.

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DR. FRANCIS M. GUNNELL, Surgeon U. S. N., has been made Surgeon-General U. S. Navy. He is a native of Washington, D. C., graduated at Georgetown University, has been in the Medical Corps 35 years, and 17 years at sea. He is evidently a hard-working man, who has rendered excellent service, and has had but little time or opportunity for dawdling at Washington "receptions" and fashionable "hops." If he makes as good an officer as Surgeon Wales did, the department will be fortunate indeed. That he will do well and his best is evident from his record.

DR. FORDYCE BARKER, of this city, has had conferred upon him, by the University of Edinburg, Scotland, the degree of LL.D. A worthy honor most worthily bestowed.

MEDICAL REFORM in medical education is most marked now at the South; Virginia, West Virginia, North Carolina and Alabama have each a Medical Examining Board, before which every one seeking to practice in those States must come for examination and certificate or license.

MEDICAL PRACTICE IN KENTUCKY.—A bill has been introduced in the Kentucky Legislature to regulate the practice of medicine in that Commonwealth, the principal feature of which is to allow no one to practice medicine in Kentucky without first procuring a license from the county court clerk, of the county in which such practice is to be engaged, and before the clerk shall issue such license, the applicant must exhibit a diploma from some creditable medical college, or produce satisfactory evidence that he has been engaged in the regular practice of medicine for ten years preceding the passage of the bill.

STATE MEDICAL SOCIETY OF ARKANSAS.—The ninth annual session will be held at Little Rock, on Wednesday, April 30, Thursday, May 1, and Friday, May 2, 1884, commencing at 10 A.M., on Wednesday.

**THE INSANE.**—A recent issue of the *Psychological Journal* gives the increase of the number of insane persons in the United States at, from 1850 to 1860, 8,432; 1850 to 1870, 13,380; 1870 to 1880, 54,565. The whole number of the insane is given at 1,997; idiots, 76,895. More than one-half are not under hospital treatment.

**DISTRIBUTION OF MEDICAL STUDENTS.**—Of the 9,700 medical students in 1882–83, in regular medical colleges, 2,146 were in New York colleges. After New York comes Pennsylvania, with about half the number (1,088), then follow Illinois, 900; Ohio, 800; Missouri and Kentucky, each about 600. In homœopathic students Illinois is far ahead of any other State, having 422 matriculates. Then follow Ohio, 197; New York, 187; Pennsylvania, 147; Massachusetts, 109.

**FRAUDULENT BUTTER.**—Forty million pounds of hog fat, cotton-seed oil, and other kinds of grease, preserved from decomposition and deprived of nauseating odors by means of nitric acid and other chemical agents, and containing only a trace of real butter, have been annually sold in the State of New York.

**EX-GOV. DR. BLACKBURN** is about to inaugurate a private sanitarium, in Louisville, Ky., for inebriates and lunatics.

**THE New York Society of Medical Jurisprudence** is endeavoring to have passed in this State a bill similar to the Michigan act, by which there can be an ante-mortem probate of wills, thus avoiding the question of sanity which so often comes up after the maker of the will has passed away. The bill provides that the testator shall be examined by a commission able to determine upon his sanity at the time the will is made.

**DR. C. W. THOMAS**, formerly of Richmond, Va., died at Sladesville, Hyde County, N. C., March 10, 1884, aged 45.

He graduated in 1862 at the Medical College of Virginia, with distinguished honors, and at once entered the Confederate service. He was in the expedition as surgeon which captured the Federal steamer *Water Witch* in Ossibaw Sound, Georgia, and after the fall of Georgia he was transferred to Charleston, S. C., under "Raphael Semmes," and was on the *Charleston* iron-clad when she attempted to run the blockade. He was one of the last to surrender at the close of the war. Since then he has practised his profession at different points with moderate success. He was a native Virginian, having been born in Richmond, and educated at William and Mary College. He was a courteous and polished gentleman, and a consistent member of the Episcopal Church. Devoted to his profession, he never failed to answer any call made upon him, whether he received pay for his services or not. His wife was a member of the well-known family of Haskins, of Powhatan County, Va. She died in North Carolina about seven years since. He leaves three sons and one daughter, all young. They are being educated and cared for by his brother, J. W. Thomas, Jr., a druggist of prominence in Norfolk, Va.

**A LOST MEDICAL WORK.**—At the annual meeting of the Obstetrical Society of London, Dr. Aveling mentioned that the society had some time since asked Dr. Fordyce Barker, of New York, to have made for them a transcript of Woolveridge's "Speculum Matricis." This book, published in Dublin in 1670, is the earliest original work on midwifery in the English language, and the only copy known to exist was in the possession of Dr. Fordyce Barker, who, at the request of the society, employed a man to copy it. This person absconded with the volume, and died in Europe. Thus, it is feared, the only copy of this work has been irretrievably lost.

**RECOVERIES AFTER HANGING.**—The earliest case on record is that of Tiretta de Balsham, whom Henry III. pardoned in 1264 because she had survived hanging. . . . Females, however, appear to have had more such escapes

than males. Dr. Plot gives several instances, one, that of Anne Green, who, in 1650, came to when in the hands of the doctors for dissection; another of Mrs. Cope, hanged at Oxford, in 1658, who was suspended for an unusually long period, and afterward let fall violently, yet she recovered, only to be more effectually hanged next day. A third substantiated case was that of half-hanged Maggie Dickson, who was hanged at Edinburg in 1728, and who, from the jolting of the cart in which her body was removed from the gallows, recovered. . . . Sir William Petty, the eminent surgeon in Queen Anne's time, owed his scientific fame to his having resuscitated a woman who had been hanged. The body had been begged, as was the custom, for the anatomical lecture. Petty, finding symptoms of life, bled her, put her to bed with another woman, and gave her spirits and other restoratives. She recovered, whereupon the students subscribed to endow her with a small portion, and she soon after married and lived for 15 years!—*The Chronicles of Newgate*.—*Griffiths*.

ALEXANDER WOOD, M.D., F.R.S.E., F.R.C.P.E.—Another prominent member of the profession in Edinburg, Dr. Alexander Wood, has been removed by death. He died on February 26, after a brief illness. The deceased was the son of the late Dr. James Wood, of Edinburg, was born in Edinburg and educated there; he graduated M.D. in Edinburg University in 1839, and in the subsequent year became a Fellow of the Royal College of Physicians, of Edinburg. He entered upon practice in Edinburg with a very large measure of success. Owing, however, to the state of his health, he was compelled to relinquish this some years ago. In his earlier years he was closely associated with the late Sir James Y. Simpson in his memorable experiments with anæsthetics. To Dr. Wood the profession is indebted for the introduction of the hypodermic injection of drugs by the hollow-needle syringe. If there be any doubt as to his merit as the inventor of this method of medication, there can, at least, be none as to the important part he took in giving an impulse to hypodermic medication, which now forms so powerful a weapon in the armory of practical medicine. In 1855, he published a paper on a "New Method of Treating Neuralgia by Subcutaneous Injection."

NUMBER OF GRADUATES.—

College of Physicians and Surgeons, Baltimore . . . . .	127
Medical Department, University of New York . . . . .	167
Bellevue, New York . . . . .	149
Homœopathic, New York . . . . .	53
St. Louis Medical College, St. Louis . . . . .	34
St. Louis College of Physicians and Surgeons . . . . .	28
Missouri Medical College, St. Louis . . . . .	102
N. Y. College of Pharmacy, including two female graduates who won none of the honors . . . . .	71

THE KENTUCKY STATE MEDICAL SOCIETY meets this year at Bowling Green, on June 3d, instead of May 7th, as first announced.

THE LOUISIANA STATE MEDICAL SOCIETY meets this year at Baton Rouge, May 21st. Dr. J. P. Davidson is president, and is making special efforts to have a large meeting. There is need of a greater interest in State societies on the part of some of the Southern States.

BILLS BEFORE THE NEW YORK STATE ASSEMBLY.—The following bills are favorably reported: Incorporating the New York Cancer Hospital. Incorporating the Good Samaritan Dispensary in New York. Legalizing all medi-

cal degrees and diplomas granted by the United States Medical College in New York. The bill making the Health Officer of New York a salaried officer was reported adversely.

THE MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY held its commencement exercises at Little Rock, on March 3d, and graduated a class of thirteen.

RECENT RULING OF THE U. S. TREASURY DEPARTMENT.—X. Dried lizards, intended for ultimate use as medicine: Held to be dutiable at 40 per cent. ad valorem, under paragraph 93 for medicinal preparations, and not to be free of duty, under paragraph 636, for non-edible dried insects. (Letter to the Collector of Customs at San Francisco.)

THERE is at present in the medical department of the University of Kharkoff, in Russia, a first year's student named Dzeetchakovski, whose age is 60 years. He was at the Warsaw University in 1863 as a third year student in the medical course, but he was exiled to Siberia for taking part in the Polish Insurrection, and his exile was not terminated until last year, when, with other Poles, he was allowed to return to Europe. He has now resumed his studies.

DR. C. THEODORE WILLIAMS.—The condition of Dr. C. Theodore Williams has not continued to improve. Although the fever had entirely subsided at the end of the third week, abdominal pains continued to recur; and, in the fifth week, the temperature rose to 102°, and on three days to 103°, with distinct indications of peritoneal inflammation.

“CONFEDERATE WAR PAPERS,” by General Gustavus W. Smith, has already reached a second edition.

THE Legislature of Connecticut, in session at Hartford, passed a bill recently prohibiting the sale, for hotel or family use, of any ice cut from waters made impure by sewage, mill refuse, etc.

THE New York Court of General Sessions has decided that the law obliging medical graduates of other States to have their diplomas countersigned by a New York College, is void.

TYPHOID FEVER.—M. Jaccoud, in an analysis of a large number of temperature charts in typhoid fever (*Journal de Médecine*, February, 1884), shows that the general impression as to the average date of the attainment of the maximum temperature in that disease is not correct. Not the sixth to eighth day, but the fifth represented the maximum; in fact, it was not very rare for the maximum to be reached on the second day. In the light of these observations it evidently is unsafe to exclude typhoid on the score of having a temperature of 104° F. on the second or third day. The examination of these charts showed that precocity of the fever constituted a rather unfavorable element of prognosis.

VIRGINIA BOARD OF MEDICAL EXAMINERS.—All must rejoice with their friends in Virginia over the passage of the bill creating a Board of Medical Examiners in that State. By the terms of the law no person shall, after January 1st, 1885, practice as a surgeon or physician, for compensation, without having first obtained a certificate from this Board, and cause his name to be registered in the manner prescribed. The bill provides that the Board shall consist of



“men learned in medicine and surgery, and shall be appointed by the Governor on the first of November, 1884, and every fourth year thereafter, from a list of names to be recommended by the Medical Society of Virginia.”

A BILL to regulate the practice of medicine and the sale of medicines in Utah was passed by the Legislature, but vetoed by the Governor, Eli Murray, at the solicitation of certain patent-medicine men.

THE Annual Meeting of the Association of American Medical Editors will be held in Washington, May the 5th, at 8 P.M., in Medical Hall, Southeast corner of Sixth and F streets. The Annual Address will be delivered by President Leartus Connor, M.D., on “The American Medical Journal of the Future, as Indicated by the History of American Medical Journals in the Past.” Dr. N. S. Davis will open the discussion on “How far can Legislation aid in Elevating the Standard of Medical Education in this Country?”

THE BACILLUS OF TUBERCULOSIS is ridiculed by Virchow.

OLD AND NEW MEDICAL JOURNALS.—In 1883, 55 new journals were started on the track and 15 died.

THE *Journal of the American Medical Association* has taken the trouble to fill up two columns with a full translation of a scurrilous and personal article upon the *N. Y. Medical Record*, as printed in an obscure and obscene French journal.

THE WOMEN'S MEDICAL COLLEGE, of Philadelphia, held its annual commencement, at the usual time, and degrees were conferred on a class of twenty-six, including one lady from Burmah.

“TRAUMATIC APOPLEXY” is the euphemism under which a coroner's jury has expressed its opinion as to the death of a student in Yale College, who died shortly after having been knocked down in a sparring contest with one of his fellow-students.

ACCORDING to the *Lyons Médicale*, women practiced medicine and surgery over a century and a half ago. There were then in Lyons forty-three master surgeons and thirteen widows of surgeons in regular practice. All doctors' widows had the right to practice medicine and surgery.

INTERNATIONAL PRIZE ESSAY ON CRIMINAL ANTHROPOLOGY.—*La Rivista di Discipline Carcerarie* offers a prize of 2,000 lire (£80) for the best essay “to exhibit the progress made in the present century (in Italy and elsewhere) in the study of criminal anthropology, and the theories upheld by the most competent writers; to examine the facts and statistical figures adduced in support of such theories, and to compare them or to combat them with other facts and with other statistics.” The prize is open to all comers. The essays must be written either in French or in Italian, and must be sent to the *Direzione della Rivista di Discipline Carcerarie* not later than December 31st, 1884.

AGAINST FEMALE PHYSICIANS.—PHILADELPHIA, April 2.—At a largely attended meeting of the Philadelphia County Medical Society a proposed amendment to the constitution permitting the admission of female physicians to membership was defeated by a vote of 79 yeas and 48 nays, it requiring a two-thirds vote for the passage of the amendment. The admission of females has several times before been denied by the society.

## EDITORIALS.

MEDICAL OFFICERS ON TRANS-ATLANTIC STEAMERS.—A DEPLORABLE AND DANGEROUS CONDITION.—The defective medical service and the want of efficient sanitary administration upon trans-Atlantic steamers has recently been the subject of prolonged and vigorous agitation in England. The press, both medical and secular, has, with united voice, denounced the existing and dangerous system, the medical societies have unanimously adopted resolutions condemning it, and the British Medical Association has both memorialized and interviewed the President of the Board of Trade. As yet, however, no reform has been instituted, for commercial cupidity has no conscience, and British ship-owners are a powerful and united Body, who determinedly resist what, even in the least degree, might curtail their power or reduce their profits.

Americans must, therefore, awaken to their own interests, and enforce their undoubted right to protect themselves against a constant and grave danger which has in the past been attended with most disastrous results. The medical officers of these steamers are now appointed by the owners of the vessels, and without regard to age, professional experience, qualification or character. As a consequence, it appears that of 141 surgeons, who during the first six months of 1882 had full medical charge of English steamers carrying passengers to America, no less than sixty would have been ineligible, through lack of the minimum professional qualification, for any medical appointment in the English army, navy, prison, asylum, or poor law services. Which, to show the danger and disgrace of such a condition, may be presented thus: Of the surgeons (?) who, during the period named, were entrusted by British steamship owners with care of the health and lives of American citizens of all degrees, nearly one-half would have been pronounced incompetent, by British law, to hold even a junior office in the treatment of British convicts or paupers.

It is stated that the hospitals on board these steamers are generally insufficient, often ill-placed, and sometimes taken from the surgeon's control and devoted to other purposes than the accommodation of the sick; that even on the largest and finest vessels there is no dispensing or hospital steward, and no proper provision for the care of the sick and the suppression of infectious diseases. The surgeon, in matters of general sanitary administration, is, as a rule, a mere puppet in the hands of the captain and owners. Under such circumstances, it is not surprising that a high mortality should exist among the passengers to this port on all European lines.

In the latest addition to a splendid fleet carrying annually its thousand upon thousands, and patronized even by royalty, the surgeon's

room measures five feet eleven inches by five feet three inches, is without any window or port hole, and is situated below in a narrow thwart-ship passage, the door being opposite to and within thirty inches of the door of the passengers' water-closets. Everything else on this vessel is magnificent to a degree. The saloon, to seat about 200, is gorgeous and in perfect taste; the steerages, for about 2,000, exceed the requirements of the law; the captain is allotted two fine rooms, in one of which alone probably twenty persons could sit with comfort; yet for the surgeon, who has sole charge of the health of these persons, and on whose skill any one of them may depend for his life, this wretched hole, absolutely useless for any other purpose except a clothes' press, or, perhaps, another water-closet, is deemed sufficiently good.

On one line the surgeon is paid £9 for each month that he has conducted himself to the satisfaction of those placed over him; but he is obliged to sign the "articles," or contract, between employer and employed at the rate of one shilling per month, which is, therefore, all that he can legally claim, while the remaining £8 19s. is held as a security for his good behavior. This principle is applied to no other member of the crew except the surgeon, unmistakably implying that his employers regard him as the most untrustworthy and probably ill-conducted man on board ship. Indeed, as is very often stated, he is commonly remunerated at about the same rate as that allowed to the steward, cook and carpenter.

Hence it follows that the conditions of the ship-surgeon's position are so very unfavorable, that suitable men can seldom be retained for any considerable time; and those sent out in medical charge of crowded passenger ships are frequently either too young and inexperienced for the responsibility placed upon them, or are men whose want of health or proper character would preclude them from other positions of medical trust. Dependent upon these causes there is among passengers a much larger amount of sickness, and a far higher mortality, than is justified by the necessity of transit.

The *New York Tribune*, of March 18th, publishes a lengthy interview with Dr. J. A. Irwin, who, although resident of this city, has been leader of the movement in England. The facts elicited would have been incredible were they not founded upon official statistics, parliamentary returns, and other equally indubitable evidence. The steamship agents will follow the traditional tactics of absolute denial, with which all are familiar who have followed the details of a "Castle Garden Investigation" into the complaints of immigrants. The usual routine is as follows: The passengers declare, upon oath, that during the voyage the steerages were filthy, the food bad, and the sick neglected. On the other hand, any number of stewards and other ship officials are ready to swear that everything was exactly as it should be—the steerages washed out twice daily, the food excellent, and the most tender care lavished upon all invalids. The bread is represented to have been sour, but the captain

produces an unexceptionable loaf which is precisely the same as was used throughout the voyage. The potatoes were black and unwholesome ; the purser exhibits a magnificent tuber, probably the finest which Jefferson Market (N.Y.), could produce ; and so on. The commissioner then decides that nothing can be done upon such contradictory evidence, and nothing more is heard of the matter until the next complaint, when a similar farce is enacted with the same result.

The moral to be deduced from such facts is, that United States passenger legislation will never be effective until it provides for a competent and independent inspection, not only at the beginning and end of the voyage, but *throughout each voyage*.

The British colonies have long recognized the necessity of such a precaution. Every vessel carrying emigrants to Queensland, New South Wales and New Zealand, has on board a medical superintendent who is appointed by the Government of the colony, invested by it with the fullest authority over everything connected with the health and comfort of the passengers, and is entirely independent of the captain, owners, or shipping interests. The result is declared upon all sides to be eminently satisfactory.

Have not the United States an equal right to protect their future citizens? And as this right cannot be doubted, shall it not be promptly exercised and faithfully and rigorously enforced?

**NUTRITION AND INSANITY.**—There is such a thing as mind-strengthening work. In truth, it is, as every physiologist knows, only by work that minds, or, more correctly speaking, brains, can be strengthened in their growth, and naturally developed. The exercise of those centres of the nervous system with whose function what we call consciousness and intellect are associated, is as essential to their nutrition as activity is to the healthy growth of any other part of the organism, whether nervous or muscular. Every part of the living body is developed, and enjoys vitality, by the law which makes the appropriation of food dependent upon, and commensurate with, the amount of work it does. It feeds in proportion as it works, as truly as it works in proportion as it feeds. This canon of organic life is the foundation of those estimates which physiologists form, when they compute the value of food in measures of weight-lifting power. It is, however, necessary to recognize, that although these propositions are true in the abstract, they need the introduction of a new integer or combining power, before any sum of results can be worked out. We know that food is practically just as truly outside the body after it has been eaten, digested, and even taken into the blood-current, as it is when it lies on the table. Nutrition is a tissue-function, and its performance depends on the appetite and feeding power—which is something different from the organic *need*—of the tissue with which the nutrient fluid is brought into contact. Again, any particular part of the organism may be so exhausted by work that

it has not power enough left to feed. It is a matter of the highest practical moment that this fact should be recognized. There is undoubtedly a point at which work ceases to be strengthening and becomes exhausting—self-exhausting and self-destructing so far as the particular tissue in activity is concerned. The once accepted hypothesis of a separate system or series of trophic nerves is nearly, if not quite, discarded. While we believed in the existence of special nerves of nutrition as possible, it was at least permissible, in a scientific sense, to suppose that recuperation might take place by the nutritive power of these nerves after the last reserve of potential energy had been converted into kinetic force and consumed in work, because the two forces—the force for *work* and the force for *nutrition*—were supposed to be generated by, and accumulated in, different centres. Now, however, that we have ceased to think that the faculty and function of nutrition have been relegated to a special part of the nervous system, it is easy to see—in truth, the conclusion is forced upon us—that work may be carried too far, in fact to such a point that not only the last reserve of power for action, but the ultimate unit, so to say, of the force of nutrition, which is, as we now believe, identical with the force of general activity, may be expended in work, and the organism left so utterly powerless that its exhausted tissues can no longer appropriate the food supplied or placed within their normal reach. We have said that it is necessary this should be understood. It has a special bearing on the question of brain work in childhood and adolescence.

Just as extreme weakness and faintness of the body as a whole produce restlessness and loss of control, so extreme exhaustion of the brain produces mental agitation and loss of healthy self-consciousness. This is how and why the “overworked” become deranged. One of the earliest indications, or *symptoms*, of brain exhaustion is commonly irritability; then comes sleeplessness of the sort which seems to consist in inability to cease thinking either of a particular subject or of things in general; next, the mental unrestful or uncontrollable thought gets the better of the will, even during the ordinary hours of wakefulness and activity, which is a step further towards the verge of insanity than the mere persistence of thought at the hour of sleep—this way lies madness—and, finally, the thinking faculty, or, as we say, the imagination, gets the better of the will, and asserts supremacy for its phantoms: those of sight or of hearing being the most turbulent and dominant which happen to be most commonly used in intellectual work, and therefore most developed by the individual cerebrum: this *is* madness. Such is the story of overwork of the brain or mind; and it is easy to see that at any stage of the progress from bad to worse the will may be overpowered, and the judgment perverted in such manner, as to impel the victim of this mind-trouble to seek refuge in death; or to so disorder his consciousness that he supposes himself to be acting in obedience to some just and worthy behest, when he commits an act of self-destruction, or does some-

thing, in the doing of which he accidentally dies. Such, in the main, is the story of suicide from overwork.

What, then, can be the excuse pleadable by those who heap on the brains of the young or adolescent such burdens of mind-labor and worry as exhaust their very faculties of self-help and leave them a prey to the vagaries of a starved brain? We pity the suffering of those shipwrecked sailors who, after exposure in an open boat, perhaps without food, for hours or days, "go mad" and, raving of feasts and pleasures, the antitheses of their actual experience, fall on each other, or throw themselves overboard. Have we no pity for *brains* dying of lack of food because we have compelled them to expend their very last unit of force in work, and now they are distraught in the act of dying? These considerations are suggested by the story of the recent suicide of a pupil teacher, and by the great and pressing politico-social question which similar cases have raised. It may be that other motives for or influences to self-destruction may be discovered, when the most recent case of suicide reported comes to be more closely investigated. We lay no stress on this particular incident; we only regard it as one of too many occurrences which serve to illustrate our argument, and should enforce our appeal in favour of moderation. It may be a sublime ideal, that of a highly-educated people, but if it should happen that the realisation of this beautiful dream of our philosophic reformers can only be achieved by the slaughter of the weak, it will scarcely console the national conscience to reflect that, after all, "the survival of the fittest" is the law of Nature.

This elaboration on the part of the editor of the *London Lancet* is very ingenious, very plausible, and even very beautiful; but it will not bear successfully the test of even the most superficial analysis; indeed, it may be justly termed one of the fairy-tales of science. It is impossible for any one to establish a relation between nutrition and sanity, or mal-nutrition and insanity. Many of the worst lunatics are large eaters and excellent bloodmakers, while many of the most complete dyspeptics, and many suffering from mal-assimilation, have the mental balance wholly undisturbed. No one has ever established, and no one can establish, any relation between anæmia or even spanæmia and mental alienation. In diseases chronic in character, where there is even waste of tissue coincident with mal-assimilation and failure of nutrition, there is no mental disturbance. The consumptive, daily consumed by his disease, and failing to maintain even the balance of nutrition, so far from being disturbed in mental balance, is often remarkable, to the last, for the brightness and vivacity of his intellect. There is not only no relation between mal-nutrition and insanity, but there is not even any proportion manifested between the extent of feeding and the strength or resiliency of intellection. The axiom laid down by the *Lancet*, or attempted to be laid down, of the individual that "feeds in proportion as it works, as truly as it works in proportion as it feeds," is so manifestly fallacious, that it is almost needless to demonstrate its fallacy. Some

of the greatest brain-workers (the most absolute of all workers), when consuming their best strength, usually eat least, while the heavy feeders are notoriously not only indolent, but even lethargic in nature and habit. Club-men, who gorge themselves daily and through life, do no work: so of society men, and the idlers of the world. They live, apparently, chiefly to feed; they neither work as they feed, nor do they feed as they work.

The greatest brain-workers have done the hardest work while they have eaten least, and were through life small eaters and poor blood makers. Balzac, Scott, Cowper, Bulwer, Byron, Longfellow, Darwin, Gladstone, Alexander Stevens, and very many who have been mental giants in labor, as well as capacity, eat but little always, and assimilated badly. They never eat as they worked, nor worked as they eat. It is all a fallacy.

The blood is often even starved in disease, functional and organic in character, but it is impossible to say that mental alienation bears to this condition any possible relation whatever. The *Lancet's* very beautiful effort must be pronounced very pretty indeed, but it is one of the fairy-tales of science.

GHOSTS.—The London Society for Psychical Research has discovered that there is an enormous number of ghosts in England. Haunted houses are as plentiful as boarding-houses, and some of them are densely packed with ghosts. Before the society began its researches, it was supposed that there were very few resident ghosts in England. Proprietors of haunted houses carefully concealed the fact that they had ghostly tenants, lest it should hinder them from obtaining flesh and blood tenants, and people who had been compelled to abandon houses because they were haunted, feared to mention the fact lest they should be ridiculed. Thanks to the society, we can now form some idea of the ghost population of England. It is estimated that in London alone there are thirty thousand ghosts who reside permanently in their respective haunted houses, besides a floating population of about three thousand ghosts who visit London without the intention of remaining there.

There are many persons who would like to make acquaintance with ghosts, but hitherto they have had no means of finding out the residences of desirable ghosts. It is true that a man could, if he chose, advertise for a ghost, but it is more than doubtful if any ghost would see and answer the advertisement. Moreover, were any one to advertise for a "sober, middle-aged evangelical ghost—one who does not break furniture and who never frightens children preferred"—the advertisement would immediately be ridiculed by graceless newspapers. With a view of supplying a long-felt want, the Society for Psychical Research is now preparing a ghost directory, giving the names, residences, business, and general reputation of all the ghosts in the United Kingdom. Any one desiring to make the acquaintance of a ghost has only to consult this

directory. In it he will read of "James Smith, No. 2 Bloomsbury square. Born 1665; murdered 1720. Quiet and gentlemanly ghost; walks in the two-pair front bedroom, with a knife in his heart;" or of "Crazy Jane, No. 64 Minories. Age unknown. Shrieky and chain-rattling ghost; performs regularly at 1 o'clock A.M., but is rarely visible. Can be recommended to married men whose mothers-in-law frequently visit them." In this directory any one can find just the style of ghost of which he may be in search, and although the compiler of the directory does not guarantee the character of his ghosts, and cannot be held responsible if they prove unsatisfactory, great confidence can no doubt be placed in the honesty and care with which his work is performed.

The compiler in question is without doubt one of the boldest men now living. Has he reflected that no man ever yet compiled a directory free from mistakes? Does he know that the man whose name is omitted from a directory, or whose name is spelled incorrectly, or whose residence or business is incorrectly stated, hates the directory compiler with a hatred that cannot be appeased? Such a man can call on the compiler of the directory, or write to him, and denounce him as a forger and an idiot; but he cannot proceed to acts of personal violence without danger of falling into the hands of the police. There is, however, no limit to the ways in which a misspelled or misrepresented ghost can wreak vengeance on the unfortunate compiler of the Ghosts' Directory. That the compiler will make mistakes is a foregone conclusion; in which case he is certain to be haunted to an extent that will make life a burden to him. If he makes only fifty mistakes he will make at least fifty deadly enemies among the ghosts, and he should ask himself, What will life be worth to a man haunted by fifty simultaneous, infuriated, and utterly irresponsible ghosts? No words can fitly express the bravery of the compiler who incurs this tremendous risk, and he will certainly be a madman within a month after the publication of his directory—unless, indeed, he is a madman already.—*Times*.

THE "MEDICAL BUGLE."—It is marvelous how much alike all young medical journals are at the commencement of their existence; so much so, indeed, that were it not for their covers, one could scarcely tell which journal was held in the hand.

Each one tells the same old familiar story: what wonderful success it has had, how it is appreciated, how letters come pouring in congratulating the editor on his success; how Dr. Gasbag has called in, and said that it was the best journal he had ever seen, that he wanted it, that his friends wanted it, that indeed everybody wanted it, that the profession could not do without it; and then the editor tells how Gasbag had paid his subscription, and had said that he wanted the journal as long as he lived, or the journal lived, etc.

Then come extracts from letters, of kind friends, full of good wishes and bright hopes. And the young editor thinks that there never was



such an editor, and that the world believes that there never was such a journal: and all is roseate and bright and beautiful. And the young editor is so full of plans—he is going to blow his bugle, and, at the blasts of it, medical societies will be formed in States as thickly as are scattered plums in Christmas puddings; and reforms are to be made in the old ones; and the old men and the young are to gather together and debate sweetly and eloquently; and reports are to be given which will show that this long-buried treasure would never have been brought to light but for the clarion blasts of the bugle.

And then the young editor is going to found medical colleges and hospitals, and give to native talent its long-needed stimulus and opportunity; and the poor are to have blessed ministrations of gifted native clinicians, that the world may know, even in remote Gileads there is balm, and that there are physicians there, etc.

Ah! it is the same old, old story: years, young friends, will roll onward, even as they did before the medical bugle awoke the echoes with its strident and clarion blasts. Old Gasbag will run up a long bill and never pay it; going scrupulously, in turn, to each neophyte to gladden and seduce him with his siren song. Many will do like him, but many, too, of Nature's noblemen, will be found true as steel, and faithful as fidelity; their names will be "as familiar as household words." And still the world will roll on, and the young editor will become gray and worn; and if his journal still lives, he will find his work to be, even as the young Græcian sculptor found the marble idol which during a lifetime he had chiseled: more prized by himself than by others; many equal to it, many far better.

Yet, young friends, lay not down the chisel; every blow, if well bestowed, converts dead material into actual form, and, if life lasts, fortune crowns the labor. The dormant conception may yet spring into a welcome ideal; and some there may be, perhaps, who will yet come and say of the work, it is "good."

All welcome, then, as well all hail, to the medical bugles; but would that some kind spirit could compose for their owners some air which was not quite so old, and some blast which was not quite so familiar.

THE LOUISVILLE MEDICAL COLLEGE (KY.) is very unworthily and unjustly censured by the medical press. That some of its subordinate officers have been officious in correspondence, and have made unwarranted and unwarrantable offers is very probable, but that any of the Faculty have done, or authorized others to do, more than is done by a very large number of medical Faculties, is most improbable.

It will be remembered, or ought to be remembered, by all who wish to be just, that it was this college which, in August, 1869, accepted and obeyed the unanimous resolution of the American Medical Association, to the effect that \$120 should be the minimum charge in all American medical colleges for professors' fees; that the Western medical colleges had a

“cheap-fee convention” three months afterwards, and, repudiating the action of their delegates and that of the American Medical Association, returned to the cheap-fee abomination. It was after this act, and in consequence of this act, that the Louisville Medical College established a general system of “scholarships” at reduced rates. It was the effort to “fight the devil with fire,” and it was successful. Why had not and why have not the Western medical colleges the manliness to meet the offer made by the Louisville Medical College? Why will they not charge, and why have they not charged, the \$120 as a minimum fee? They profess to teach as well as do the Eastern medical colleges; but instead of showing their faith by their acts, instead of competing fairly with these Eastern colleges, *they buy students*, by offering to take them at \$70 each, or for \$70 less each than is charged by all of the respectable Eastern medical colleges.

The Western medical colleges must be undervalued, and must be content to be undervalued, and will be undervalued, so long as they admit that they are afraid of a fair and just competition with Eastern schools, and buy a class to secure one. The only true course for them is to accept the offer of the Louisville Medical College, publicly made fourteen years ago, to charge every student not less than \$120 for his professors' tickets. This is the only true, manly, and decent course.

The thousand graduates of this college are entitled to this defence. The Faculty needs no defence. The whole fee system of the Western colleges is unsound, unjust to able teachers, and needs reformation. Graded courses are failures. Length of terms is immaterial; so is the length of the undergraduate period. What is needed in every State is one public tribunal, before which must come every applicant for graduation or practice. When this is done, the Louisville Medical College will justly enjoy the position to which it has always been absolutely entitled.

THE PUERPERAL FEVER DEBATE.—In this valuable and instructive debate, Dr. W. F. Lusk seems to be unconscious of the fact, that his reasoning is manifestly faulty, and his inculcations, based thereon, mischievous. Speaking against the use of uterine injections when suspicious evidences of septic poisoning are manifest, he teaches that these uterine injections, as advised by Dr. Thomas and others, are useless; saying that “washing the uterus after the pelvic tissues are invaded does not prevent the development of puerperal septicæmia.” In defence of such a plea (it is no argument), he says that “washing the arm the day after vaccination does not prevent the development of vaccinia.” If there were any analogy whatever in the two cases, this assertion would be entitled to consideration, if not to respect; but it is so manifest, that there is no analogy between the vaccine matter and that which produces puerperal fever, that any argument to demonstrate this is useless. If, however (to use the arm illustration selected),

an arm that was abraded was brought so long into contact with septic matter as to produce septic fever, does Dr. Lusk mean to say that it would be useless to wash away this matter, and keep the arm clean; or does he claim that it would be sound practice to allow this poisoning to go on? Does he, in effect, deny the whole truth on which rests the cardinal principle of drainage in treating septic wounds and surfaces? It is true that uterine washings too long postponed could not prevent a septic poisoning already existing, but would they not prevent "the *development* of puerperal septicæmia?" To teach that because a practitioner, from a failure to use uterine washings in suspicious cases, had allowed septic poisoning to begin, he was to allow (by abstaining from proper cleansing) this septic poisoning to go on and become more dangerous, is certainly so erroneous, so illogical and so injudicious, as not to need further comment for its condemnation.

TOO MANY GRADUATES.—A WIDELY SPREAD AND MANIFEST ERROR OF THE PRESS.—Very many persons who do not think carefully have endeavored to show, by the statistics of several countries, that the United States do not need any more physicians, and that the graduation of about 2,500 students annually must lead to disastrous results.

It has been claimed that, whereas Germany has 1 physician to 3,200 inhabitants, France 1 to 1,200, Great Britain 1 to 1,600, and the United States 1 to only 600, that this country is already largely overstocked with doctors. Any one must see that unless the density of population is also considered, and relatively considered, all such claims are illogical and worthless, really not worth the paper on which they are written.

Thus, in France there are about 203,811 square miles, and on these are collected about 40,000,000 inhabitants, or about 200 persons to the square mile; while in the *United States* there are about 4,200,000 square miles, and on these are about 42,000,000 inhabitants, or about ten persons to the square mile. It is at once apparent that the French physician who attends 200 persons can do so by moving in one square mile; while the American physician who attends 200 persons must drive over 20 square miles for this purpose. In other words, the proportion of physicians to population is absolutely immaterial, unless the density of population be considered.

It should be borne in mind, also, that the number of physicians who die, change their avocation, move away, or become helpless from disease or old age, is not regarded by those who become hysterical over the fact, that about 2,500 medical students are annually graduated in this country.

CIRCULAR TO THE MEDICAL PROFESSION OF TEXAS.—A very excellent circular has been issued to the physicians of Texas, for the purpose of collecting and embodying such influential facts as will secure efficient laws for the suppression of charlatanism and all irregular practicing in Texas, and for the exclusion from the limits of the State of all who have

not, by legitimate means, secured the right to practice medicine and surgery. Texas, as a State, is peculiar in its medical organization. Within its borders are to be found a large number of some of the most accomplished physicians of the United States, and with these an army of blatant medical demagogues, arrant charlatans, and brazen quacks. It is full time that the true grain should be winnowed from the worthless chaff, and the medical profession and the general public secured in their rights and in their safety by the enactment of efficient and much-needed laws.

Every physician in Texas who is interested in this great subject should give to it his whole influence, and thoroughly co-operate with those who went to Belton, in April, and gathered the facts and the material for securing proper legislation.

This circular is prepared with great care, ability and judgment. It is signed by Drs. George Cupples, T. R. Chew, G. W. Christian, J. W. Fennell, and Otto Grube.

LOUISVILLE (KY.) SCHOOL OF PHARMACY.—The Legislature of Kentucky has somewhat surprised the State Board of Pharmacy, by embodying in the bill incorporating the Louisville School of Pharmacy for Women a clause which provides that all graduates, or those holding certificates of proficiency, shall be authorized to keep “open shop for the sale of medicines and poisons and for the compounding of physicians’ prescriptions, or to act as an aid or assistant to any person keeping such open shop.” Consequently, no graduate of this school will have to apply to the board hereafter for registration. The bill was engrossed and signed by the Governor, and is now a law in full force and effect.

This is rewarding the gallantry of the members of the State Board of Pharmacy even beyond their expectations; or (shall it be so said of gallant men), beyond their desires. But it is all as it should be. Females, if competent, should be druggists; it is a new and good field for them. And then so many doctors will go to these drug stores and stay there, and will learn so much about prescriptions, that they will not be asking for them always, and buying books and journals made up of nothing else. Of course, they will offer to do the mortar and pill-board work for the fair druggists, and so they will come to really know enough of pharmacy to write their own prescriptions.

THE DISCUSSION ON COLD APPLICATIONS IN ENTERIC FEVER.—The paper in which Dr. Sidney Coupland introduced the subject of the application of cold in enteric fever, at the discussion before the Medical Society of London, was one of no ordinary magnitude or importance; it could in reality, with all its appendices, tables and charts, rank rather as a monograph, and no doubt it will shortly see the light in some permanent form. Dr. Coupland, while not altogether accepting the percentage obtained by Brand, who, by the collation of some sixteen thousand cases,

arrived at the conclusion that the mortality, by the systematic use of the cold bath, had been reduced from 21.7 per cent. to 7.4 per cent. or about two-thirds, evidently leaned to the opinion that the application of cold did diminish the mortality (his own per centage is 7.8), but that to obtain the desired effect it was necessary to begin the treatment before the end of the second week. Brand has maintained that cold applied early and systematically not only lowers the temperature, thus diminishing the injurious effects of the pyrexia, but actually prevents the development of the characteristic intestinal lesions. Dr. Coupland brought forward some evidence in its favor, and earned the commendation of Dr. Bristowe, who followed him with a clever criticism of the statistical method.

THE EDITOR OF THE "MEDICAL WORLD," of Philadelphia, claims that he has been so worried and badgered by his subscribers, about the small price asked for his journal, that, to oblige them, he has consented to raise the price from 65 cents to a dollar a year. It is to be hoped that the increased remuneration will repay him for his generous sacrifice.

What he will do with this increase of thirty-five per cent. in his receipts he does not say, but it is to be expected that he will either give it to the Bartholdi Statue of Liberty Enlightening the World, or to sending a corps of medical missionaries to Japan. In some such way he will have the pleasure of obliging a large army of subscribers, and, at the same time, have the satisfaction of not having charged more for his journal than, in his judgment, it is really worth.

Unhappy editor! He alone has had the unique experience of being compelled to sell his journal to clamoring purchasers at a price nearly one-half more than he believes it to be worth. The sufferings of editors are far greater than is believed; but this is a sorrow which no one, even among editors, could have anticipated. It will command universal sympathy.

THE DIFFERENCES IN FORM OF THE ADULT HEAD.—At a meeting of the New York Academy, held February 21st, Dr. John C. Dalton made an address on the above subject. A short time ago, he said, he had become interested in the method of comparing the differences in the adult human head, which was afforded by the machines which hatters are accustomed to use for getting the exact size and shape of the heads of their customers at the level at which the hat was usually worn. He had secured a great variety of paper patterns representing different heads, and had been furnished with no less than 360 of these from one hat store in New York. According to their shapes, the heads were divided into medium, long, and round, heads. One hundred being taken as the standard of width, if the length were between 120 and 130, the head was a medium one; while if the length was under 120, it was a round one; and if over 130, a long one. In addition, the heads varied greatly in regard to the comparative width of the back and front parts and the

symmetry of the two sides. Some, again, were perfectly curvilinear, while others presented angles and straight lines.

THE OYSTER MONTHS, or those containing the letter "r" in their names, have gone, and it is therefore, of course, unsafe any longer to eat oysters, unless some one can invent a new method of spelling the summer months. It has been seriously claimed that, in the period of Julius Cæsar, another day was added to the month of February, at the solicitation of the epicures and oyster dealers, and that astronomical reasons were not even considered in arranging the Julian Calendar.

Some oyster dealers have even been enterprising enough to sell oysters in August, and in their bills spelling the month Orgust, but physicians had at once to be called to all eating such oysters, and they have found that unless the "r" could be introduced into the word in some more philological manner, it would be unsafe to indulge in this shell-fish during the month mentioned. What influence the letter "r" has upon the digestibility of the oyster, science has not yet determined. In some inexcusable way Dr. Beaumont did not subject Alexis St. Martin to this experiment. It was a great opportunity forever lost.

STATE INGRATITUDE.—Contrasting the higher honors conferred on successful generals with the treatment of men of science, the *Scotsman* considers it anomalous that a man like Parkes, whose life-work was devoted to the beneficent end that armies might be kept safe from outbreaks more fatal in war than shot or shell, should go to the grave scarce noticed by the country he had served so well, and that Farr, the founder of the science of vital statistics, whose generalizations are now accepted maxims in dealing with the health problems of dense populations, should, after a life of drudgery at the desk, sink under the weight of years, leaving those nearest and dearest to him dependent on others, while the State and the world continue to profit enormously by his unrequited services. But it also acknowledges that distinctions conferred by the State are not the goal towards which our noblest minds strive, and that the love of truth and of humanity form incentives enough for the highest work.

SOMETHING NEW : GIVING PILLS AND POWDERS BY THE MOUTH.—*The Medical Age* recently gave several formulas for administering pills and powders of mercury *per os* (by the mouth). As this method of administration was, of course, uselessly specified, this JOURNAL, in noting the fact, added : "This is something new ; how is it done ?" *The Age* now quotes *from authorities* to prove that *per os* is correct ; as if the fact had been denied ! It says that an A.M. ought to know better ; that the profession in this country usually write *per orem*, but that *its* editor does not make such blunders !!! Well, brother, you will see the joke—after awhile.

PERFECT DIGESTION.—In its very next paragraph, *The Age* appropri-

ates the whole of that anecdote, as to "the biceps of the bear and the man," without a word of credit!! Its digestion is very complete; so complete, indeed, that the very source of its food is completely concealed. Well, brother, good food is the secret for good blood, and good blood produces *an improved circulation*.

THE ANNUAL REPORT OF THE COMMISSIONER IN LUNACY furnishes some interesting facts in regard to the institutions for the insane in the State of New York. The population of the State is about 5,000,000, and the number of insane is 14,000, of whom 11,343 are in public care and custody. The latter are found in State asylums, almshouses, county asylums, and private asylums. There are eight State asylums, four of which receive only the acute insane, two receive only the chronic insane, one is devoted to the insane criminals, and one receives only insane immigrants. The four asylums for acute insane received during the year 1,116 patients; the total number under treatment was 2,427; the number discharged was 742, of whom 309 recovered, 175 improved, 268 unimproved; 25 were not insane; 149 died. The percentage of recoveries on admissions was 27 7-11, and on the whole number under treatment 12 2-3; the deaths were 6½ per cent. of the entire number under care. The two asylums for chronic insane admitted 367, and discharged 193.

THE NATIONAL PHARMACOPŒIA.—The *American Druggist* makes the following contribution to history:

"It is rather remarkable that, when Dr. E. R. Squibb proposed, a few years since, to change the method of organizing the convention so as to place the revision of the work, practically, under Government auspices, as provided for in Randall's recent bill, the leading opponents of the plan were Philadelphians, and that their principal effort was to show that the plan then in operation is the one to be preferred. The Convention of 1880 was called, and the subsequent revision was conducted accordingly; but the convention adopted measures which reformed the methods of revision and *removed the control of the work from Philadelphia*. It becomes, therefore, of interest to inquire whether the recent 'change of base' manifested in the 'City of Brotherly Love' can have any relation to the removing of the locality of the office of publication?"

MALT EXTRACTS.—It appears that unfair and disreputable men have been at work undertaking secretly to make physicians believe that maltine, as made and sold by Messrs. Reed & Carnrick, is inferior in its diastatic effects and in its power of converting starches into sugar and soluble substances. This is certainly, apart from the dishonesty of the transaction, a great wrong to the manufacturers, to the profession, and to the sick. So far from the statements being true, the most distinguished chemists have proved that maltine converts into

soluble substances more than double the amount so converted by any of the malt extracts sold ; indeed, of the fourteen extracts sold only three have this power.

Of the accuracy of this statement the following chemists have filed testimonials, to be seen at this office, viz.: Attfield, of London; Harrington, of Harvard; Witthaus, of Buffalo; Macadam, of Edinburg; Depaire, of Brussels; Prescott, of Ann Arbor; Chittenden, of Yale; Coale, of Baltimore; Haines, of Chicago; Stutzer, of Bonn. This notice, as an act of justice, is published with great pleasure.

SPECIMEN ENGLISH IN THE "NATIONAL MEDICAL JOURNAL."—The first sentence in the leading editorial of the *Journal of the American Medical Association*, for April 5th, is as follows :

"MEDICAL COLLEGES AND THEIR ENDOWMENTS.—A medical college should not be an institution for the *manufacture* of physicians, but one where the science and art of medicine *is* taught, where *their* study and advancement *is* encouraged."

Here are some more samples from the same department of the same number :

"Students to-day cannot be taught as simply and inexpensively *as fifty years ago*. Science and the practical teaching of it *has* made too much advancement for *that*."

"They can then demand of the students the work and study that *is* really necessary."

"It is not new colleges that *is* required, but a more efficient management of old ones."

"The practical working of the long college sessions, the thorough grading of classes, and the annual examinations of each class in its grade, instituted by this college *is* well illustrated by the following remarks of the Dean."

THE EDITORIAL ON OCEAN TRAVEL, as given in this number, is prepared almost entirely by Dr. J. A. Irwin, of New York City, from facts obtained by himself during his experience as surgeon on board of trans-Atlantic steamers. Dr. Irwin is an Englishman who has made his home in this city, and who has, with a noble generosity, devoted a large portion of his time and his means to a reformation of the great abuses existing in British trans-Atlantic passenger steamers. He is still actively engaged at this work, and though little has so far been effected, he has enlisted the aid of the British and American medical press, a small portion of the secular press, and many of the most prominent public men in Europe and the United States. Success full and complete is only a question of time, and when it comes, to Dr. Irwin will the Public be indebted for the great reformation so actively sought and so much needed.

DR. W. H. TRIPLETT, of Washington, D. C., is about to publish an interesting work on the mechanics of respiration and circulation. A specimen section of it is given (from the manuscript) in this number. The work will, it is hoped, be liberally sustained. All letters for him should be sent to 116 West Forty-fourth street, New York.



DR. H. F. FORMAD AND THE BACILLUS TUBERCULOSIS.—Dr. Formad closes his very able analysis of Koch's claims in regard to the bacillus tuberculosis in the following strong and significant language: language which the editor of this JOURNAL publishes with great pleasure, inasmuch as the conclusions announced are entirely in accordance with his own views and convictions reached after silent but careful study of the subject:

“From the above analysis of the bacillus question and of the etiology of tuberculosis these conclusions follow: 1. That the bacillus of Koch is a valuable diagnostic sign of tubercular disease. 2. That nothing is proved by its discovery for the etiology of tuberculosis. 3. That the too ready acceptance of the bacillus doctrine is not justifiable, and is likely to do more harm than good. 4. That neither phthisis nor any form of tuberculosis is contagious.”

A GRACEFUL ACT.—It is stated by the *Journal of the American Medical Association* that the House of Representatives awarded to the widow of the late Surgeon-General Joseph K. Barnes a pension of \$50 per month, which is an increase of \$20 over the regular rate of pension at \$30 per month. Dr. Barnes was Surgeon-General for eighteen years and seven months, and during that time had a recognized pay of \$400 a month, besides extras in the shape of commutation, etc., which civilians do not understand and Congress tries to find out. Yet his widow is obliged to come before Congress in indigent circumstances. Mr. Randolph Tucker, of Virginia, was strong in his support of the bill, giving these facts as an instance of the expenses of living to officials in Washington, and calling to mind Dr. Barnes' services as those of one who, for over forty years, faithfully served his country. Mr. Tucker was what is termed “a rebel;” but Mrs. Barnes is a Virginian.

NEW NATIONAL PHARMACOPŒIA.—The bill providing for the preparation of a new pharmacopœia attracts no little attention, and the comments are by no means favorable to the introduction of a new standard. The *Medical News*, of Philadelphia, returns to the charge, however, in a manner which does it little credit. It opens its last editorial on the subject as follows: “The proposition for a national pharmacopœia appears to meet with general professional commendation, and the only unfavorable criticism which we have seen is based on trivial grounds, or on erroneous views of the power of Congress in the premises.” The fact is that *the only favorable comments are found in the “News” itself and in the “Journal of the American Medical Association.”*—*Boston Med. and Surg. Journal.*

THE CHARM OF MYSTERY.—A doctor with an Arabo-Hindostanian name settled in one of the suburbs of Paris. In a short time he had a large run of wealthy patients. The police sent an officer to inquire about the diploma of the mysterious practitioner. The doctor received the officer very politely, and smilingly showed him his full certificates, and

his diploma from the University of Paris. "But," he said to the officer, you will oblige me if you do not speak about this, for I would lose all my patients in a short time, if they should know that I am only a regular Parisian physician."

THE Board of Education of this city gives to each pupil only 50 cubic feet of air, though promising to give 70. The British hospitals give each patient 1,800 cubic feet, and in barracks 800 cubic feet. The athlete soldier receives twenty-five hundred per cent. more breathing space than is accorded to the suffering mental laborers among the school children of this city. The penitentiary would not be amiss for such monsters of ignorance and cruelty.

THE PLURALITY OF ONE.—We have calls for a few copies of Nos. *two* and *six* of *The Journal* that we are not able to supply at present. We again request any one who may have duplicate copies of these numbers to re-mail them to this office; and if any *one* has received and paid for these numbers who *do* not care to keep them, we will pay four times the subscription price for their return in good order to us.—*Jour. Amer. Med. Assoc.*

THE "ATLANTA MEDICAL AND SURGICAL JOURNAL" (new series, vol. 1, No. 1) has made its appearance. It is very handsome, and the interior gives abundant evidence of trained and accomplished editors. The frontispiece is novel and attractive. It is hoped that this journal will obtain the success which it so richly merits.

PEDESTRIANISM.—Drs. Richardson and Kerr, of London, Eng., are raising a fund of £1,000 for Weston, as a testimonial in regard to his recent walk of 1,000 miles, walking 50 miles every day excepting Sundays only. A great feat and a suitable reward.

THE PRESIDENT OF THE NEW N. Y. STATE SOCIETY.—Dr. H. D. Didama, of Syracuse, is said to consult freely with homœopaths. If this be true, he will have to resign the presidency of the new State Medical Society, whose organic law is the old code of ethics.

"EL REPERTORIO MEDICO" is the title of a new medical journal, published by Wm. Wood & Co. The copies so far published are neatly issued.

THE "OBSTETRIC GAZETTE," of Cincinnati, loses its old editor, Dr. E. B. Stevens.

THE INSANE IN N. Y. STATE ASYLUMS number 11,271—828 more than in 1882.

THE SIMS MEMORIAL FUND now amounts to \$4,757.50.

# GAILLARD'S MEDICAL JOURNAL

AND

(THE AMERICAN MEDICAL WEEKLY.)

(CONSOLIDATED.)

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Scientia et Veritas Sine Timore.

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VOL. XXXVII.

NEW YORK, JUNE, 1884.

No. 6.

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## ORIGINAL ARTICLES.

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ARTICLE I.—TUBERCLES OF THE BREAST. By GHISLANI DURANT, M.D., Ph.D.,  
New York.

“Nothing is more common than to see physicians pronounce almost every form of mammary tumor malignant, and advise an operation; and it is altogether too common for a physician to examine a breast that has been removed, only to find it a simple adenoid tumor.”—Page 323, *Hospital Gazette*, 1879.

“It must be admitted that though no specific remedy may yet have been discovered for the cure of some diseases, it is still a great advantage to be able to discriminate curable from incurable diseases; the dangerous from the slight; those which require surgical operations from those which do not demand them; and such as admit of a trifling operation from those which call for one of extreme severity.”—SIR ASTLEY COOPER, “Diseases of the Breast.”

*Case 1.*—In April, 1878, Miss Hattie —, aged twenty-six, felt pain in the left breast, and upon examination discovered there a rounded tumor of about one-half an inch in diameter. Her doctor, to whom she showed it, told her that such things were not uncommon, and that if she would but keep her hands away from it, it would disappear.

During the succeeding eighteen months, the tumor neither increased nor diminished in size, nor did it, except at the menstrual periods, give pain. Since then, however, it has grown steadily, and when the family physician again examined it (May, 1880), he advised her to consult a prominent surgeon of Chicago, who was unable to decide whether the growth was malignant or not, but counselled its removal. This she refused to have done, and, returning home, nervously watched its development. The idea of having a cancer, and the dread of an operation, have so disturbed her general health that she has lost

all desire for food, her menstruation has become very scanty, and she has grown very thin.

In September, 1880, her parents, alarmed by her condition, brought her to New York, to consult Dr. —, who pronounced the growth cancerous, and advised an immediate operation, for the reason that the earlier the surgical interference, the less the probability of a return of the growth. This statement so frightened the girl that she took to her bed. In the meantime the parents met a lady whom I had successfully treated for a somewhat similar growth.

When I saw the case on the 26th of September, 1880, the appearances were as follows: The left breast was larger than the right, and presented on its upper hemisphere an ovoid tumor, an inch and a half by one inch, with a slightly irregular outline and a nodulated surface. While sharply defined in front, behind it seemed to merge into the deeper tissues of the gland; no radiating prolongations from the tumor could be found. There was no deformity, no discoloration nor adherence of the skin, nor any enlargement of the axillary glands; there had been no exudation from the nipple, which was on the same horizontal line as the other.

Except that she has suffered terribly from chilblains during the past four years, the patient habitually enjoyed excellent health up to the time of the discovery of the tumor. An examination of her lungs gives negative results. Her parents seem to enjoy fair health. There is neither cancer, tubercle, nor syphilis in the family. A sister, eight years her junior, has an enlarged sub-clavicular gland without any discoloration of the skin.

What is the nature of this tumor?

The girl is twenty-eight; unmarried. There is no hereditary antecedent; the tumor has developed very slowly; she says that it followed her striking her breast against the mantelpiece, but it may have been present long before. There is no lancinating pain, or it is so slight as to cause no trouble; no enlargement of the axillary glands, and no exudation from the nipple. It has not the hardness of scirrhus, and she is too young. The gland is not deformed, nor the nipple retracted. There is neither the dimpling nor the pitting so characteristic of carcinomatous growths (Gross). Its growth was far too slow for a sarcoma, or a fibroid tumor, and neither the rebound nor the peculiar wave sensation of a cyst is present. Circumscribed cancers are extremely rare, and develop at or after the menopause. It is not an encephaloid, for it is neither large enough (remembering how long it has been growing) nor has it the elasticity, nor the irregularity of surface, of this variety of growth. It is not an adenoma, since it is not isolated, has not sharply-defined boundaries, is not heavy enough, and has no enlarged superficial veins.

Believing it to be tubercle of the breast, I began, on the second of October, to feed her well, to give her arsenic, and to inject daily into the tumor itself iodine and carbolic acid (carbolic acid, 1 gr.; iodine, 1-10 gr.; water, 100 grs.). On the first of November there was already a marked improvement in her general health. In January she was entirely free from pain, and the tumor had diminished to one-half its former size. In March it could scarcely be felt; and so it was in May, 1881, when she returned to her home.

In a letter dated May, 1883, in answer to my inquiry as to her present condition, she writes that "the little hard lump is there still, but causes no inconvenience."

*Case 2.*—The history of the tumor to which reference has been made is as follows :

On May 18th, 1877, Miss P ——— consulted me regarding a lump in her right breast, which she had discovered two weeks before. She is a brunette of splendid physique. Her father is living and well; her mother died from cancer of the womb. A sister, thirty-four years of age, had one breast removed, a year ago, for cancer.

The affected breast is larger than the other; the development is in its totality, no tumor being perceptible to the sight. Touch shows increased sensitiveness on the inner side near the nipple, where a tumor the size of a walnut may be felt. No fluctuation can be detected, and the skin is not discolored. Both the physical and the rational signs of mammary abscess are absent. While the family history and the symptoms suggested the possibility of cancer, I was inclined to regard the case as one of tubercle of the breast. Uncertain as to the nature of the tumor, I did not operate, but placed her under the iodo-carbolic acid treatment.

During the first three weeks' treatment, the breast increased in size, but became softer. At the end of that time fluctuation could be detected at the site of the tumor. A week later I introduced a fine exploring needle in the fluctuating portion, and obtained a few drops of pus, somewhat similar to that from a cold abscess. I then made an incision three-fourths of an inch in length into this pus-cavity, from which came about two ounces of a serous pus mixed with caseous matter. The treatment was continued, and in September the breast, except a single hard spot, was well. This spot grew smaller and smaller, and when, six months ago, I saw the patient, a tiny scar alone told which breast had been affected.

It is easy to conceive that in both these cases, the second especially, a diagnosis of cancer might well be made, and it was with some hesitation that I finally pronounced the second to be a case of tubercle of the breast, a lesion but little known, and until recently neither described with sufficient exactness nor by competent authority, owing to the small number of recorded clinical observations. I have searched carefully the literature of the subject, and have failed to find anything pertaining to it (except once) among English or American writers. I propose to give here a summary of our present knowledge of the subject.

Virchow stated quite recently that "the mamma is one of those organs in which tubercle has not yet been found" ("*Geschwulstwerk der Brustdruese*," Bd. 11, p. 679).

No less positive is the statement of Cornil and Ranvier: "We know of no case of tubercle occurring in the mammary gland" ("*Patholog. Histology*," translated by Shakespear and Simes, Philadelphia).

But the beliefs of but a very few years ago are to-day known to be untrue, and the existence of tubercle in the mamma has been fully demonstrated by the researches of Dubar and his followers.

## SCROFULOUS SWELLING OF THE BREASTS.—SIR ASTLEY COOPER.

“In young women who have enlargement of the cervical absorbent glands, I have sometimes, though rarely, seen tumors of a scrofulous nature form in their bosoms, confined in most cases to a single tumor in one breast; but in one case two existed in one breast and one in the other. They are entirely unattended with pain, are distinctly circumscribed, are very smooth on their surfaces, and scarcely tender on pressure. They are very indolent, and vary with the state of the constitution, diminishing as it improves and increasing as the general health is deteriorating. They can only be distinguished from the simple chronic inflammation of the breast by the absence of tenderness and by the existence of other diseases of a similar kind in the absorbent glands of other parts of the body. They produce no dangerous effects, and do not degenerate into malignancy. They do not require an operation; and, indeed, it would not be justifiable to remove them by the knife. But I have seen them removed from an error in judgment respecting their nature, and when cut into, after their extirpation, they are found to be composed of a loose and curdy fibrine very unequally organized” (“Anatomy and Diseases of the Breast,” 1845, chap. viii., page 53).

## TUBERCULOUS ABSCESS.—VELPEAU.

“Though possibly here, as in every other situation, tuberculous abscesses of the breast are, notwithstanding, rare. Their seat by preference is in the glandular system, and up to this time anatomy has discovered no lymphatic glands in the breast. Surgeons who have supposed the existence of glands in the breast on account of certain tumors in them, have probably been imposed upon by growths of the secretory structure and by morbid productions. The breast is, however, sometimes the seat of abscesses, which may be called tuberculous because of the progress, and especially of the character of the pus which they contain. Lymphatic women, of broken constitution, who have been weak for a long period, are particularly subject to this form of abscess, which we also meet with in some persons in other respects of good constitution and health.”

*Case 2.*—A woman, upwards of 40 years old, from Provence, who had previously enjoyed excellent health, came into La Charité for a tumor, the size of the fist, which had arisen insensibly in the right breast in consequence of a slight blow from the elbow. It occupied the inner and upper part of the breast, and had never been accompanied by pain or inflammatory symptoms. Irregular in outline, like a glandular tumor, it was soft and fluctuating in some parts, and so hard in others that it had been mistaken for fibrous, encephaloid, or scirrhous mass. The opening which I made in it gave exit to pus partly serous, partly grumous, resembling in all particulars the pus of scrofulous or tuberculous abscesses. The walls of the cyst were partly formed by the mammary tissue, and had not undergone any morbid change. Attentive examination made it evident that the pus cavity extended by a slightly sinuous passage as far as the cavity of the anterior mediastinum. No change could be detected in the bones or cartilages

nor in the lungs, and, as the abscess finally got well, I was enabled to conclude that it was unaccompanied by any organic lesion ("Maladies du Sein," p. 162).

If some varieties of neuralgic induration and of scattered tubercles lead to the supposition, without absolutely demonstrating the fact, of the existence of lymphatic glands in the mamma, the following case seems to me to add still greater weight to the supposition :

*Case 1.*—A woman of from 40 to 50 years of age, who was for a long time an inmate of the Clinical Hospital, where she died, and whom I saw on several occasions, presented in both breasts numerous tumors, which had almost all the characters of lymphatic glands, much enlarged and degenerated. The tumors were globular, of a pale red color, separated from each other, of almost fibrous density, covered with points and yellowish or greyish clots, like tuberculous glands. There were similar tumors, to the number of several hundred, on the neck, in the axillæ, the groins, and everywhere, in fact, where anatomy has placed the existence of lymphatic glands beyond question. They existed also in a number of other parts where the glandular lymphatic system has never been demonstrated. These tumors were carefully dissected by Mr. Lenoir, who showed them to me, and they were so exactly like degenerated glands that I had no hesitation in classing them amongst the scrofulous or tuberculous tumors of the mamma (*op. cit.*, p. 285).

Tuberculous tumors, without general tuberculosis, may occur in the breast. They are usually single, and have no fixed size or form. Lumpy and irregular in shape, they may present themselves in the centre of the gland just as under the skin, but more commonly they become developed beneath the mamma. Supervening in consequence of a blow, or without evident cause, they sometimes progress very slowly and indolently, and at others more rapidly, and accompanied by sub-inflammatory symptoms. They are composed of hypertrophied, lardaceous greyish tissue, forming a sort of cyst, which is very thick in some parts, and very thin in others; the loculi of which are either greyish, flocculent pus, or free albuminous clots, or caseous or thick tuberculous matter, adherent to or combined with the neighboring tissues. Sometimes, however, they are represented by homogeneous masses, which are solid though friable, and which, by their form, simulate pretty closely encephaloid or colloid masses.

*Case 3.*—In the year 1836, I was requested by Mr. G. Pelletan, to see a woman, about 30 years of age, who had for two years been affected by a tumor of the breast. The tumor, which was about the size of a hen's egg, lumpy, movable, indolent, and situated between the lobules of the mamma, had arisen without external violence, or appreciable cause. No fluctuation could be discovered in it; it was elastic, and tolerably hard, with a certain amount of thickening. It was surrounded by pale and thin tissue, and occurred in a woman who was much emaciated, and whose general health had long been feeble.

The most attentive examination failed to detect any internal organic lesion in the patient, but as the disease of the breast had resisted the different remedies which had hitherto been applied, it was decided, on consultation, to proceed to the extirpation of the tumor. There was nothing remarkable in the operation; it was simple, easily and rapidly executed, and in less than five weeks the wound

had cicatrized. Dissection of the mass showed—1. The fibro-glandular tissue distended, thinned, and forming a sort of cyst incompletely septiform. 2. Masses the size of the thumb or of a filbert or walnut, agglomerated together, and in some parts fixed one against the other, and in others separated in portions of their circumference by vinculi or layers of healthy tissue. There was every indication that these masses were the result of exudation, and they were destitute of vascularity or organization. Their substance was homogeneous, of a light blue or yellowish white. On pressure they yielded, and were broken up, and became transformed into an easily friable substance. They had not the texture of encephaloid, from which they differed in the absence of any organized basis; nor did they resemble colloid, which is transparent or bluish, friable or gelatinous. They were, in one word, masses analogous to crude tubercles, and distinguished from them only by their excess of volume (*Op. cit.*, p. 287).

TUBERCULOUS TUMORS OF THE BREAST WITH PULMONARY TUBERCLES.—JOHANNET.

On December 2, 1847, there came into the Hospital of Bon Secours, Augustine Didier, aged forty. She menstruated at 15, and married at 20, and gave birth to eleven children in the space of thirteen years. But one child, the first, was nursed by her. Her health, up to February, 1847, was excellent. At that time she began to have severe, almost continuous pain in the right axilla, which led her to discover there small round movable tumors; a dry cough followed, and slight spitting of blood. Menstruation suddenly ceased, and in a few days the right breast began to enlarge, but painlessly. Soon the axillary glands enlarged and ulcerated, and from that time the fistulous openings have given exit to an abundant serous and fetid pus. When she entered the hospital her general health was wretched, no digestion, diarrhoeal stools, and sleep broken up by sharp pain in the right breast. However, there is but little cough, no expectoration and no sign of scrofula.

Auscultation and percussion show that a cavity exists at the apex of each lung. The right mamma is the size of that of a child at birth, and the smooth skin preserves its mobility, and its ordinary thickness; here and there it is furrowed by bluish veins. The surface is uniform, without any nodulation, and whatever spot be explored, there fluctuation is evident. A puncture with a bistoury, in the depending portion, gave vent to an abundant semi-serous, greenish-brown, and very fetid liquid, and the patient at once experienced relief. But the symptoms became more acute after a few days, and the patient died on the 29th of November.

At the post-mortem a small cavity was found in the right, and another, which would admit an ordinary nut, in the left lung. A sub-pleural tubercle as large as an oat grain had perforated the third intercostal space and infiltrated the breast. The track of the pus could be followed only with difficulty, as it was a sort of fistulous duct lined by mucous membrane. Here and there, also, the mammary gland presented in its thickness five or six large tubercles. Some of them had softened almost entirely, adding a new element to the suppuration, and leaving



nothing but their shell ; the others were yet in a crude state (*Rev. Méd. Chirurg.*, t. xiii., p. 301).

LYMPHATIC TUMOR IN THE FEMALE BREAST.—JAS. MILMAN COLEY.

The absorbent vessels of the upper part of the breast, leading to the axilla, are subject to a disease characterized by painful, tender and irritable swelling, and consisting of several cord-like indurations, at some times disposed in parallel rows, at other times connected after the manner of anastomosis. Other parts of the breast are occasionally the seats of this affection ; and in whatever situation it occurs, the swelling is transverse, following the direction of the absorbents towards the axilla. On a superficial examination the tumor may escape detection ; but it can always be discovered by taking the suspected part between the fingers and thumb. When the pain and tenderness are extreme, the absorbent glands in the axilla become enlarged from irritation. These glandular enlargements always disappear after the original disease has subsided ; the lymphatic swelling in the breast also frequently retires, leaving no vestige behind it. In extreme cases, however, a permanent thickening takes place, occasioned by the deposit of lymph in the cellular membrane. This disease usually attacks females between the ages of 15 and 35, and is liable to recur repeatedly where the constitution is in the peculiar state predisposing to it. The condition to which I allude is that of comparative emaciation, accompanied with irregular or deficient menstruation, depression of spirits, and general debility. Hence, suckling and chlorotic women are more frequently the subjects of attack. In some instances the patients are inclined to attribute the origin of the disease to external violence ; in the majority of instances, however, if not in all, it has appeared to me to proceed from imperfect menstruation. The size of the tumor in the mamma varies from that of an almond to that of an adult thumb ; and the pain and tenderness attending it are of a remittent character. In some rare cases it attains nearly the size of a pullet's egg, in large and plethoric mammæ.

One of these tumors, which was removed at the earnest solicitation of the patient, was found, on examination, to consist of thickening of the coats of the lymphatic vessels, embedded in a stratum of condensed cellular tissue. As this affection is dependent on the state of the general health, and particularly on an imperfect performance of the periodical functions of the uterus, its duration is uncertain.

The author then relates six cases illustrating the disease of which he treats. I will, however, give only the last of these, in which the size of the breast made the diagnosis uncertain.

“ A lady, aged forty-three, residing in the country, consulted me respecting a tumor in the right breast, which had been a source of pain and apprehension during twelve months. She had been under the care of a general practitioner, and an eminent surgeon, and was led to believe the tumor was of a malignant character. The swelling was as large as a walnut, irregular on its surface, exceedingly tender and painful on pressure, and seated in the upper part of the breast, in the course of the absorbents. Every three or four months the uterus discharged a kind of false membrane instead of the proper menstrual secretion.

The bowels were habitually relaxed; the axilla was free from disease; the pain in the tumor was described as an aching, and sometimes as a stinging sensation. On a careful examination, which was much impeded by the mass of cellular and adipose membrane beneath the integuments, I discovered in the irregular surface of the tumor the enlargement and induration of the lymphatic vessels, which are characteristic of this disease, and I therefore gave my patient a favorable opinion and prognosis, notwithstanding that some retraction of the nipple, quite unusual in connection with this kind of tumor, had taken place.

“May 5th.—Under iron and colchicum the tumor is much smaller and more free from pain, the catamenia has appeared naturally, nipple less retracted, and the lymphatic character of the tumor more evident.

“12th.—All pain removed, and the swelling in the breast rapidly diminishing.

“August 18th.—No return of pain, except on the approach of menstruation; no remains of the tumor left. The remedies discontinued.

“The patient has continued free from the disease to the present time”—(*Lancet*, 1848, p. 579).

#### TUBERCULOUS TUMORS OF THE BREAST, WITH PULMONARY TUBERCLE.

“I have seen,” said Nélaton, in 1838, “Gerdy extirpate tumors that were clearly tuberculous, without any concomitant lesion. The tubercles, six in number, formed a mass, which, before the operation, raised up the skin, and caused a prominence in the form of nodulated tumors. They were similar in every point to those which are sometimes found in the brain of children, and like them had the color and density of cooked chestnuts” (*Rev. Méd. Chir.* t. xiii., p. 301).

#### SCROFULA OF THE BREAST.—BAZIN.

“Scrofulous tumors of the breast have a volume varying from that of a pigeon’s egg to that of a foetal head. They are nearly always painless, and this distinguishes them from cancerous tumors proper. Their surface is more or less nodulated, and they are of unequal consistency. Partial suppuration may take place in them, approach the skin, and thin or perforate it. At the surface of the tumor ulcers are formed through which an unhealthy pus, mixed with tuberculous flakes, escapes.

Scrofula never manifests itself in the mamma alone. Its march is slow. its duration undetermined. In most cases the affection is mistaken for cancer, which explains why certain amputations of the breast are not followed by a return of the disease; the scrofulous affection not being subject to return as the cancerous is.

Eczema of the breast, abscess of the mamma, blows, falls, and, generally, all the causes of local excitement, favor the development of this affection (“*Leçons sur la Scrofule*,” 2nd edition, 1861, p. 409).

#### MAMMARY TUMOR OF TUBERCULOUS NATURE TERMINATED BY SOFTENING AND ISSUE IN THE GALACTOPHEROUS DUCTS.—DR. LÉGER.

“On April 15th, 1878, Miss X, aged about thirty, came complaining of a

tumor in the right breast, which caused her much suffering. The young lady, of frail organization, is unable to give much information as to her family antecedents. Her father and mother are still alive, and a younger sister, who is also delicate. When she first noticed the tumor, in September, 1877, it was an indurated nucleus the size of a filbert, lying at the inferior part of the right breast. This nodule has steadily increased in size, has become knotted, subdivided into lumps, and at the same time painful. Examination shows that the left gland is rudimentary. The right is prominent, conoidal, not hanging, and presenting, in its inferior half, well-marked nodosities. The skin is slightly adherent, especially on a level with the principal nodule; its color is violet, and the nipple is slightly retracted. Pain is felt at times, becoming marked on pressure, when the hardness of the nodules is manifest. No engorgement of the axillary glands exists.

“To sum up the description of this mammary tumor, it may be said that everything points to the existence of an encephaloid carcinoma on the point of ulcerating.

“But on examining the general state of the patient, you see that her health, greatly reduced, is undermined by a cause other than a cancerous cachexia. Instead of a straw-yellow tint of the skin, there is a skeleton-like thinness, with red cheeks. The young lady says that, though the tumor makes her uneasy, she is still more disturbed by an incessant cough, which came on at the same time as the trouble in the breast. She has night sweats, and although the sputa are not as yet stained by blood, they are greenish and very abundant. The exploration of the thorax reveals the existence of a large cavity at the apex of the right lung.

“The question is whether we have to deal with a cancer of the breast in a tuberculous patient or a true caseous mammitis. Although to-day it is admitted that the two diatheses—the cancerous and the tubercular—do not exclude one another, and notwithstanding the resemblance of the lesion to a carcinoma about to ulcerate, the last hypothesis seems to me the more probable one, both on account of the marked tuberculous condition of the patient, and that lesions of the mamma so far advanced, had they been of a cancerous nature, would have affected the axillary glands. The truth of the diagnosis was verified towards the end of August by her death from pulmonary tuberculosis” (“*Bull. Soc. Méd. d’Amiens*,” 1878).

#### TUBERCLE OF THE MALE BREAST.—DR. HORTELOUP.

M. M., aged thirty-nine, has been tuberculous at least ten or twelve years, and there are cavities at the apex of the left lung. There was no anterior syphilis.

In November, 1870, while at Mentone, the right testicle began to enlarge, and after presenting symptoms of great acuteness, causing sharp pains in the belly and the lumbar region, though it did not prevent the patient from standing, passed into a chronic state.

In the month of June, 1871, the right testicle was found to have become as

large as a turkey's egg, uniformly hard in all points, with no nodosities, and moderately painful on pressure. The left testicle was beginning to increase in size and become painful. In July, 1872, the right testicle had diminished in size two-thirds, and the left to its normal volume; there had been no softening, no abscess and no nodosity.

In December, 1871, the patient complained of a pain, on the slightest touch, in the left breast. Direct examination revealed a perfectly circular tumor of the size of a five franc piece, flat, but presenting, however, a thickness of at least one centimetre, and painful to the touch; the skin is slightly reddened, the nipple retracted a little toward the centre of the tumor. Cataplasms were ordered to be kept constantly applied for one month.

At the end of January, 1872, the pain had disappeared almost entirely, but the tumor still kept almost its former volume; the emplastrum Vigo was employed for three months. Slow and progressive diminishing of the tumor followed, and some traces of it still remain to-day, but the patient pays no attention whatever to them ("Des Tumeurs du Sein chez l'Homme," Paris, 1872).

#### TUBERCLE OF THE MAMMA.—BILLROTH.

There is reported the case of a scrofulous girl, who was thought to be tuberculous also, which was seen by Billroth. Nodules containing caseous matter, and varying in size from a hazel to a walnut, were found in the breast. Each one having been incised and then cauterized with argentic nitrate, began to heal. Billroth would call this case one of chronic caseous-matter-producing mastitis.

There is no clinical history of the second case referred to by him, except that the patient was twenty-six years old, tuberculous, and had during her life suffered no pain in the breast. At the post-mortem, numerous cavities, filled with cheesy broken-down masses, which here and there contained in their centre a tuberculous fluid, and small caseous nodules, occupied, or rather studded, the breast. Although the microscopic examination gave no evidence, Billroth is not positive about the presence of giant-cells in the preparation given him, but his conclusion "that this was a rare case of a true tuberculosis of the mamma," is justified ("Deutsche Chirurgie, herausgegeben von Billroth u. Luecke, 1880, lief. 41. "Die Krankheiten der Brustdruese," p. 80).

#### TUBERCLE OF THE BREAST.—DR. RICHET.

"The left breast was enormously tumefied, and the appearance of the skin was masked by the application of tincture of iodine, which had made it brown and scaly. In places the skin was elevated by small nodules, over which irritating applications had been made for eighteen months. On both sides, below the breast, there was eczema. This, without doubt, was caused by the irritating applications. The affection had also developed under the axilla of the left side; for there a large tumor existed, which was hot, covered by a very red skin, with an indurated base, and a soft and suppurating summit, as if it were a phlegmon not entirely softened. Under the skin of the breast you could feel a tumor—elastic, hard, formed of two principal knobs, and situated over the external

part of the mamma, comprehending that half of the hemisphere toward the axilla. The tumor was so changed by the inflammatory phenomena, that a diagnosis was impossible.

“Under emollient applications, the use of antiphlogistics, and a free incision, which gave issue to a large quantity of creamy pus, mixed with clots and flakes, the tumor grew smaller, and the pain diminished considerably.

“When the inflammatory phenomena had given way, the aspect of the case changed completely; the general health improved, the fever disappeared, and the appetite returned. Up to two years ago, the woman had never been ill; lately she has had a cold but no spitting of blood.

“At the outer part of the breast you can now feel a tumor the size of a turkey’s egg; elastic, hard, presenting three principal parts, two of which had been incised and had given issue to pus. When pressure is made at that level, pus no longer flows, but there exudes a sort of plastic lymph, yellowish, stringy, not resembling the fetid discharge of cancerous tumors, but recalling rather the appearance of thickened lymph. Between the two knobs there is a third one, which was not incised because it presented no inflammatory appearances. It is not painful on pressure.

“In three weeks the tumor in the axilla has diminished four-fifths; it has the volume of a large nut and is very hard. The skin over it is wrinkled, no more pus exudes, and the base is like the tissue of the breast, elastic and hard. Though the tumor had a hard and elastic feel, it was not painful, and gave issue to a liquid resembling plastic lymph. I at first regarded it as cancer with a rapid growth (Broca). To-day the possibility of a similar diagnosis does not exist.

“Is it malignant or benign? I do not believe it to be a cancerous tumor, because it is smaller to-day than when it was first observed two years ago. It has diminished two-thirds in three weeks. That is not the progress of cancer; and, besides, there is a great tendency to cicatrization.

“Is it a syphilitic tumor of the breast? The woman has been a long time under potassium iodide, and the tumor is not hard enough.

“Tuberculous or caseous tumors of the breast, alone, have the characteristics and the course observed in this case. Their rarity alone is the only objection to the acceptance of this diagnosis (“*Gazette des Hôpitaux*,” No. 55, May 13, 1880, p. 433. Case at Hotel Dieu; service, Richet.

#### TUBERCLE IN THE RIGHT BREAST.—DUBAR.

M. J., aged twenty-one, entered the Hôpital de la Charité, February 7, 1880. She never had glandular swellings. From her twelfth year she took cold every winter, the cough lasting until the warm season. For the last year she has had a continued cough, but no hæmoptysis. There is no hereditary disease, nor any evidence of syphilis.

In February, 1879, she first noticed a swelling on the outer side of the right breast, not far from the arm-pit. A fortnight later this became the seat of darting pains and the tumor grew larger gradually, and opened spontaneously in April. At first a reddish and later on a yellowish fluid came from it. The

pain, which had ceased with the voiding of the contents of the tumor, soon returned with increased intensity. A second tumor, close to the first, and nearer the nipple, developed, and gave issue to a purulent fluid. The fistulous opening seemingly closed, but afterwards reddened, and caused increased pain. An incision was made into the mamma and a large quantity of pus evacuated. As the parts did not heal, the patient entered the hospital on the 7th of February.

The volume of the diseased breast is double that of the healthy one. Palpation shows a large, indurated, nodulated tumor. The nodules are small, unequal, adherent to each other; most of them are situated outside of the nipple, and merge into the tissues of the gland. In the inner portion of the breast deep-seated indurations are felt. The gland is normal in its entirety, and moves freely upon the deeper parts. The skin is movable over the gland, except for a small space around the fistulous openings. The general state of the patient is unsatisfactory. There is fever, cough, and a muco-purulent expectoration. Rude respiration, sibilant at both apices, prolonged expiration, and a few well-defined crackling sounds at the left apex are heard upon auscultation. The diagnosis of the tumor is—chronic mammitis, probably tuberculous. As the patient did not improve, but rather grew worse, the breast was amputated on the 28th of May. The healing progressed favorably though slowly.

A thorough microscopic examination demonstrated beyond a doubt the tuberculous character of the tumor (“*Tubercules de la Mamelle*,” 1881).

#### TUBERCLE OF THE LEFT BREAST.—L. DENTU.

The patient, twenty-three years of age, has no hereditary taint, but suffered when young from swelling of the lymphatic glands. No scar is visible. In her twelfth year, a tumor the size of the fist developed in the left armpit, and opening spontaneously gave exit to a sero-purulent fluid. The discharge continued for nearly two years. In her twenty-first year, a second tumor, the size of an almond, developed near the same place, and a fistula formed, which healed up four months later. The patient was confined soon after, and nursed her child for three weeks only, as the flow of milk then ceased. About a year later she discovered a tumor the size of an almond in the outer part of the left breast. She says that the tumor has grown larger and harder with each menstruation.

On the fifteenth of February, 1879, when admitted into the hospital, the left breast was nearly double the size of the right. The skin is not freely movable, but otherwise is in a normal state. The tumor itself is the size of a hen's egg, and has a slightly roughened surface. There is a feeling of fluctuation, especially in the outer part; no pain. Believing it to be a cold abscess, Dr. Dentu aspirated it, but it soon filled again. Thereupon a large opening was made into it, and, a finger being introduced, a sinuous cavity with thick walls was discovered. On the 6th of April the opening was closed, and the patient was discharged. In the October following, thirty days before her confinement, the scar opened anew, and a milky serous fluid exuded. After her confinement the right mamma decreased in size, but the left remained stationary, giving no sign of inflammatory action.

The patient returned to the hospital on the 14th of February, 1880. The re-

sults of the examination are : The left mamma is double the size of the right. Left nipple retracted to that extent that the first phalanx of the index finger can be introduced. In the external part of the left breast there are three fistulous openings, from which a serous pus flows. The probe penetrates but little ; the skin over the outer half of the left breast is adherent, that of the inner is movable to a certain extent, and it seems to become thicker as the nipple is approached. Here and there hard nodules, which seem confluent and form a mass, are felt. In other parts there are smaller isolated nodules. The breast, though not sensitive to pressure, is at times the seat of spontaneous pain, especially at the menstrual periods. In the left axilla there are two long, uneven and somewhat painful cicatrices, and several enlarged lymphatic glands. The examination of the lungs shows no signs of tuberculosis.

The diagnosis as regards the nature of the tumor presents great difficulty. The retraction of the nipple, the thickening and adherence of the skin at some parts, and the presence of nodules in the gland, might lead us to consider it a growth of a malignant character. An operation was performed on the 25th of February. On the 12th of March the wound had almost healed, and the patient was discharged. A microscopical examination of the tumor was made by M. Quenu, Chief of the Historical Laboratory, and the conclusion reached was : " We believe ourselves justified in affirming that the case is one of tubercle of the breast " (*Centralblatt f. Chirurgie*, 1881. No. x., p. 318).

#### TUBERCLE OF THE MALE BREAST.—POIRIER.

So far we have dealt only with tubercles of the female breast. In January, 1882, Dr. Poirier published an exhaustive relation of a case of tubercle of the male breast that came under his observation, the tuberculous origin of which—the histological analysis made by Dr. Mayor (Director of the Histological Laboratory of the Hospital of Paris)—leaves no doubt. The subject, a man of strong constitution, 46 years of age, entered Lariboisière Hospital on the 14th of February, 1881, for a tumor of the breast. His father died when 40 years old from an unknown cause ; his mother when 30 from an acute affection, with fever and diarrhoea. He has two brothers older than himself who enjoy good health. The patient is not aware of any tumor or ulcer in his family ; he does not drink, and has not had syphilis. He has suffered from : first, jaundice in 1856 ; second, intermittent fever, contracted in Corsica in 1861 ; third, bronchitis in 1864 ; and fourth, acute pneumonia on the left side in 1871. The man states that about three months ago he became aware of the presence of two small vesicular pimples with indurated bases, three centimetres to the exterior of the right nipple. Little by little the base of the pimples increased in volume and hardness, and a subcutaneous lump resulted. He paid but little attention to it, and attributed the growth to a blow from a fist received in that region two years before in a fight. Lately the swelling, which is constantly increasing, has become painful, and for this reason he decided to enter the hospital.

Examination shows, upon a line drawn from the nipple to the axillary space, the presence of an elongated tumor, beginning at the distance of a finger's

breadth outside the right nipple ; it extends towards the axilla of the same side. The tumor is ovoid, the larger extremity being directed outwards toward the nipple. Its length is six centimetres, its breadth four ; its consistency is hard ; its surface knobbed ; its summit does not terminate sharply, but ends in a diffused subcutaneous puffy mass, which may be followed up to the hollow of the axilla, where two hard glands, each the size of a hazel nut, are found. The tumor is not attached to the pectoralis major, upon which it glides easily ; it is less independent of the skin, to the deep layer of which it adheres, so that the skin above the tumor wrinkles on being pinched. At first sight the tumor seems to have been developed outside of the nipple, in the rudiment of the mammary gland which exists in man, for the nipple does not participate in the movements impressed upon the tumor. The nipple, however, on being pressed, is seen to be puffy, and larger than that of the opposite side. The tumor is sensitive to pressure, but it is only within the last twenty days that it has become the seat of spontaneous pain, which comes on at irregular intervals during the day, is lancinating, and radiates towards the axilla.

As upon examination, the glands of the left axilla, those of the neck and of the inguinal regions were found to be very much enlarged, without hypertrophy of either the liver or spleen, it was decided, before giving a diagnosis, to place him under anti-syphilitic treatment, although he had denied most positively that he had had that disease.

Auscultation gave negative results.

After ten days of this treatment the tumor had nearly doubled its size, and the skin, before of a normal color, became violet-red. Furthermore, one of the knobs of the larger extremity of the tumor had increased to the size of a nut, and gave signs of fluctuation. In turn, a diagnosis of a lympho-sarcoma and a carcinoma was made.

An operation on the 24th of February showed beyond a doubt that the tumor was tuberculous (*“ Le Tubercule du Sein, chez l’Homme et chez la Femme.”* Archives Générales de Médecine, 1882, p. 59).

#### TUBERCLE OF THE RIGHT BREAST.—OHNACKER.

M. W., aged forty-four ; married. The parents are long-lived ; the brothers and sisters all healthy. She herself has always enjoyed good health, and has had five children, the last of whom was born in 1871. She nursed her children, and never had any trouble with her breast until 1881, when she accidentally discovered a hard lump the size of a walnut in the right one. She has no remembrance of any injury. The tumor enlarged slowly. Painless in the beginning, it now makes itself felt, though slightly. Shortly after, a lymphatic gland in the right axilla enlarged, and, being poulticed, suppurated, leaving a fistulous opening.

On the 20th of November, the patient presented herself at the surgical clinic, where an examination was made, with the following results : The right breast is about the size of a large fist. It does not hang down, but projects about one-half the diameter of the fist from the surface of the thorax. The tissue of the



gland, as shown by palpation, is much harder than normal, with the exception of one spot, to be mentioned later on.

On the surface of the swelling are uneven masses and flat lumps. The largest of these, the size of a *marstueckes*, lies just below the nipple and is remarkable for its hardness. Over these hard spots, the skin can be readily moved, and shows no alteration. The gland is not adherent to the muscular tissue below, and can easily be moved up and down. In the upper part of the gland a fluctuating spot about the size of a walnut exists. This begins near the nipple, and extends directly upwards to near the borders of the gland. In the centre of this spot a fluid is felt, which is only covered by the outer skin, here somewhat thinned and reddened. Palpation of the breast causes no pain at the hardened parts, or at the fluctuating spot. The nipple has the same appearance, and projects, as far as the left one, and shows nothing abnormal. The left breast is only one-half the size of the right. It hangs down, and its tissue is so flabby that the borders can hardly be distinguished. No morbid alterations could be detected in this breast. In the right axillary space, a hardened lymphatic gland, the size of a filbert is felt, which is adherent to the skin. Here also is a fistula with ulcerated edges, from which exuberant ulcerations protrude. The matter flowing from this fistula is so scanty that it dries into a scab covering the granulations.

An examination of the deep organs gave only negative results. At the apex of the left lung the percussion note is a trifle duller than at that of the right; but there is naught else to suggest that any disease of the lungs exists; in no part of the body is there a trace of syphilis. The patient complains of great weakness, and has a pale sickly complexion; there is no fever. There is no doubt whatever that the fluctuating spot in the breast is a cold abscess, and that the induration of the gland is due, not to the development of a neoplasm, but to a chronic inflammation. The next question, the cause of this inflammation, could not be solved. As the induration was not limited to one spot, but had spread over the entire gland, and as it had not originated in child-bed, but had appeared in an unusual way, it was deemed advisable to remove the entire gland.

The amputation was performed on the 30th of November. Besides the breast, the ulcerating gland in the axilla was removed. The wound, united by ligatures, healed kindly under antiseptic dressings. On the 14th of December, the cicatrix was quite firm, but above it, where fluctuation had been detected, a small abscess showed itself, which compelled the patient to remain a short time longer in the ward. On January 7th, 1882, she was dismissed entirely cured.

*Case 2.*—Helene H., thirty-three years old; married. Her mother died at sixty-five of lung disease, her father at sixty-six from dropsy. Three years ago the patient had an acute illness, said to be inflammation of the lungs. No sequelæ from it. Patient claims that prior to that time she always enjoyed good health. She was married at twenty-four, and has given birth to four children, three of whom are living and well; the other died in its fifth year. The youngest was born February 6th, 1881, and was nursed from both breasts. In May, 1881, she discovered a hard lump on the outer portion of the right

breast toward the axilla. Her attention was directed to this by feeling pain there after bodily exertion, and she therefore imagined that this exertion was the starting-point of the subsequent disease of the mammary gland. The pain in the breast was so slight that she nursed the child from that breast the whole summer, until the secretion of milk ceased and the child would no longer take the breast. In the meantime the mamma had increased considerably in size. During this slow growth no pain was felt. For some weeks, however, the swelling has increased more rapidly, and a burning pain is felt in the direction of the sternum.

On the 21st of December, 1881, the patient entered the hospital. In the place of the right mamma there is a tumor nearly twice the size of the first. It has an elongated club-shaped form, and its narrow end reaches to the axillary space. This end is free, and no swollen lymphatics can be felt. Palpation shows that that part of the tumor near the axilla contains a cavity filled with fluid. This cavity extends from the outer border of the gland to near the bottom of the axillary space. It possesses undoubtedly a pretty strong wall within which the fluid is imprisoned, for the fluctuating swelling is sharply defined and can be shifted a little on its base. This capsule is in intimate relation with the mammary gland, so that its exact limit cannot be made out, and it seems as if the cavity extended somewhat into the substance of the gland itself. In the mammary gland itself there is, just above the nipple, a small soft spot about the size of a filbert. There are also smaller cavities. Leaving out of consideration the parts just mentioned, all the exterior portion of the gland is indurated. The gland, as a unit, can be moved on its base; the skin over both the hard portion and the cavities is unchanged and flexible. Palpation causes no pain on the exterior portion of the swelling. But the symptoms presented by that portion, extending from the nipple inward to the sternum, are entirely different. Here the skin is reddened, infiltrated and immovable, warmer than the surrounding portion, and very sensitive to the touch. Owing to the infiltration of the skin, the inner portion of the gland cannot distinctly be determined, but fluctuation can be felt with certainty at the bottom. The nipple is well developed, and shows nothing abnormal. The left breast is small and flabby, and no morbid changes are discernible in it. Examination of the deeper organs reveals nothing worthy of note, no disease of the lungs being recognizable. The patient is emaciated and has a cachectic look. Taking into consideration only the exterior part of the diseased breast, the appearances correspond exactly with those of the former cases, so we came to the conclusion that it was a case of tuberculous disease of the mammary gland. To make the diagnosis more certain, on the 22nd of December, 1881, the cavity near the axilla was laid open. It contained pus and a mass of necrotic cheesy tissue, the size of a pigeon's egg. On the following day the breast was removed. At the present time, several months after the operation, the parts have not completely healed, though the general health of the patient has improved greatly, and the cachectic look entirely disappeared.

The microscopic examination of both these cases, which is given at length, left no doubt that they were anything other than tuberculosis of the mamma.

In the first case there could be no doubt whatever, for here the tuberculous process showed itself in the most decided manner. The infiltration of the parenchyma of the gland, with the formation of pronounced miliary tubercle, the peculiar tissue of granulation mixed with giant cells, the slow development of the disease, and the tuberculous cheesy degeneration in the axillary cavity, all are convincing.

The second case appears somewhat different. The gland was much larger, softer, full of large abscesses, over which the skin was partly inflamed and reddened. In this case, without doubt, the modified condition of the gland must be ascribed to the fact that the gland was engaged in active secretion. At this period the mamma is more vascular, and consequently the development of the tubercles was more rapid. This may be the more so, as, notwithstanding the diseased condition, the patient went on nursing her child.

In both these cases, as in the preceding ones, we have to do, without doubt, with scrofulous or tuberculous individuals, so that the diseased state of the mamma must be regarded as a part of the general condition ("Die Tuberculose der weiblichen Brustdruese."—*Arch. f. Klin.*, Berlin, 1882).

#### TUMORS OF THE BREAST.—A. BÉRARD.

*Case 1.*—A woman had received, thirty years ago, a violent blow from a fist upon her right breast; she felt in the contused part (three or four finger breadths from the nipple) a passing pain, which was accompanied neither by redness nor swelling. Soon the pain passed away, and from that time the patient suffered nothing more on that side until last autumn, when the pain, absent for so many years, returned accompanied by a tumor, which soon acquired the size of a small nut. At the time she came to consult me two small ulcers had formed. I thought that one of the lobules of the gland was scirrhus. Later on, one of these ulcers dilated sensibly, and showed a whitish, solid compact mass, that is to say, scirrhus, which detached itself towards the fourteenth day; the appearance of the wound was very good, and the tumefaction had diminished. A short time later, the other ulcer underwent the same process, and gave issue to a glandulous mass similar to the preceding one. Local treatment was continued; the pain and tumefaction disappeared, and cicatrization took place without accident.

*Case 2.*—Catharine Martin, aged nineteen, of a lymphatic temperament, and who had not menstruated for fifteen months, experienced in April, 1865, a slight pain, and perceived that she had a small tumor, the size of a filbert, in the right breast. The tumor soon increased in size, and the surrounding parts became engorged; other tumors appeared, and the breast, increasing in volume from day to day, finally became twice that of the other. It was very hard, and lancinating pains were felt from time to time. A physician who was called in saw grounds for an operation, which was objected to; then abscesses formed and opened.

The patient entered the hospital on the ninth of November. The breast was then hard, resistant, very voluminous, irregularly nodulated, and adherent to the chest; the gland was recognizable no longer, and the nipple had disap-

peared within the tumefaction. The skin had changed somewhat in color, being now roseate and adhering to the subjacent parts. There were three openings from which a serous pus escaped, and the patient suffered, from time to time, from sharp intermittent pains, followed by a feeling of heat.

Five abscesses formed successively under the nodules, and gave issue to a yellow caseous pus. As soon as one of the abscesses had formed, emptied itself and cicatrized, another came, to follow in its turn the same process. Under frictions of potassium iodide, the breast diminished rapidly, the nodules disappeared, the pain ceased, and suppuration stopped, so that the patient left, on the 28th of October, with both breasts of the same size, the nipples well defined, and the gland itself presenting its normal size and mobility (Quoted by Dubar: "*Tubercules de la Mamelle*," p. 106).

Even a review of the histology and pathology of this subject would require far more space than the scope of an essay permits. It would be far better, it seems to me, to deal with the symptoms, so that we may be able to recognize the presence of tubercles, when in a breast, and not mistake them for some other growth.

Hitherto their existence in the mammary gland has been denied. This denial could not have been founded on exclusion, since tubercle is found in connective tissue (Virchow), which is abundant in these glands; nor by its physiological and pathological relations, for though these glands are separated by distance from the rest of the reproductive apparatus, yet they are intimately connected with it, and participate in the alternations of activity and rest which take place in the uterus and ovaries.

Seen from a clinical, or from an anatomical point of view, tubercles of the breast present two varieties, perfectly distinct from each other:

1. A disseminated form.
2. A confluent form.

In either form the onset is insidious; the tubercular matter is developed slowly, and without producing pain, and some time elapses, usually, before the patient becomes aware of any trouble in the breast. Sometimes, but very rarely, even at this period, one or more enlarged lymphatic glands, under the inferior border of the pectoralis major, may be found. They vary in size from that of an almond to that of a hen's egg; they suppurate, and a fistula remains, from which a serous pus, containing caseous clots, exudes. These openings, after existing for several months, may seemingly heal, but with the progress of the disease, in the substance of the gland, they reopen and again discharge.

1. The disseminated form.

Either there is no increase in the volume of the breast, or it is so slight as not to attract attention. The skin is not adherent to the anterior surface of the breast, the nipple retains its usual pouting form, and the mamma moves readily on the underlying tissues. Careful palpation detects hard masses in the substance of the gland. These are disconnected, variable in number, and the size seemingly inversely as their number. Usually they have the size of an almond, but may attain to that of a walnut. They have but little mobility, seeming to

be connected with the adjacent tissues. Their surface is roughened by granulations, their consistence is firm, though not cartilaginous. Seldom do they give rise to pain. They develop very slowly, and often after they reach a certain size the growth ceases. In one case, no increase in volume could be perceived, though four years had elapsed between the examinations. The termination of this form is unknown. Dubar says that he is unable, from his researches, to say whether they may disappear spontaneously in whole or in part, or whether, a subacute abscess being formed, they may thus be eliminated,

## 2. The confluent form.

While the disseminated form may remain latent during the lifetime of the patient, and only be recognized at the autopsy, this is not true of the confluent form. The tubercles, by their agglomeration and fusion, constitute tumors, which, on account of their increasing volume, cannot long remain hidden. The breast may in a few days double in volume from a sprouting out of one or more of these nodules. All these changes may take place without inflammation and without pain; while in other cases, febrile symptoms, gastric disturbances, and severe pain press hard upon the sick one. The pain may be continuous and lancinating, or it may continue several days, then disappear, then return anew. Palpation tells us that the growth is not equally distributed throughout the organ. It is confined to one portion of the gland, and here an ovoid body of uneven surface and variable size may be circumscribed. Almost unmovable in the substance of the gland itself, with which it seems connected, the tumor does not appear to send prolongations backwards. It is unyielding to the touch, and yet, by fixing the mamma by one hand, a sensation of fluctuation may be perceived. In that portion of the gland where the new growth is not so well developed only a diffused swelling exists. The lobulation of the gland can with difficulty be recognized: the skin is normal, is readily moved over the anterior surface of the organ, which itself is not abnormally adherent to the deeper parts. Should a puncture or incision be made into one of the fluctuating points, a varying quantity of a purulent liquid, containing caseous clots, will escape, and the volume of the breast will diminish. After a varying time—a month and a half in one case—the fistulous openings close, and a slight puffiness alone remains. Sooner or later, however, the swelling reappears, and a new incision is made or an opening appears, which remains permanent. When the fistulas are well established, the disease has reached its full development, and the appearance of the gland is characteristic. In that part of the breast greatest in size a well-defined tumor exists, and on a level with it one or more fistulous openings. At the anterior wall of the axilla, fistulas, in the centres of circumscribed tumefactions, with fungous ridges are found. The skin around these openings is a dusky red, and for a slight distance is adherent to the subjacent parts. The nipple may be retracted, should the fistulous opening be in its neighborhood. Behind the fistula, palpation reveals more or less extensive induration. At the axilla, the fistulas are not deep, while in the mamma the probe may penetrate from one to two inches. The exploration is not painful, nor does noticeable bleeding follow. The bottoms of the openings are found to be very soft and

friable. We would suppose that this ever-extending, though slow growth, would sooner or later destroy the whole organ. It is not impossible, however, that a portion of it may be spared.

The termination of tuberculosis of the mamma without intervention is unknown. Generally, a deposit in some other organ, as the lung, terminates the scene.

The existence of tubercles in the breasts has been demonstrated; the cases given leave no room for doubt, and although my own cases are open to criticism, as they lack histological support, they are nevertheless interesting from a clinical standpoint.

It may be said that I have done nothing new. I claim that I have at least called attention to, and aided in establishing more firmly :

1. That the breasts may be the seat of tumors similar to the pathological products, found in many other organs, to which the name of tubercle is given.

2. Tubercle in the mammary gland is much more common than is generally supposed.

3. That mistakes as to the true nature of these growths have often been made, and ablation of the breast, from a belief in their cancerous nature, has often resulted.

4. That during life we may by clinical observation distinguish these from other tumors.

5. That as no absolute necessity for the ablation of these tumors exists, we should refrain from operating, unless unequivocal signs of malignancy develop.

ARTICLE II.—THE INFLUENCE OF THE CONSTANT USE OF HIGH-HEELED FRENCH SHOES UPON THE HEALTH AND FORM OF THE FEMALE, AND UPON THE RELATION OF THE PELVIC ORGANS. Read before the Gynæcological Society, 1883. By SAMUEL C. BUSEY, M.D., Washington, D. C.

THE foot and its coverings is not a new subject. Far more attention has been given, however, to the style and display of the covering than to the comfort and physical well-being of the foot. The *Athenæum* attributes to Pliny the statement that shoes were invented by Boethum, but intimates that sandals in some form have been in use since the original pair discovered the difference between "the flower-carpeted paradise and the hot sands and sharp stones of that dreary plain." The ancient Egyptians made them of leather, and for the priests of palm leaves and papyrus. The Hebrews made them for soldiers of iron and brass, but for others of linen and wood; and the lovers displayed their gallantry by engraving the likenesses of the adored ones upon the soles of their foot-dress, "so that the pathways of the lovers became the picture galleries of the loved." The *calcei*, with uppers and soles of leather, were worn by those who walked much. The *soleæ*, which were variously ornamented, were for use in the house. The red or purple shoe was first worn by the kings of Alba, and last by the old Roman dandies. Then followed the sharp-toed shoe and half-boots of old Germans; the high-heeled, long buskins, and the shoe with leather soles of the Roman women, which enabled the wearer to move about at home with-

out any other foot-covering. The old bark shoe was probably the progenitor of the French sabots, which were in common use and very fashionable throughout Europe during the ninth and tenth centuries. During the reign of William Rufus, a famous beau, surnamed the Horned, introduced the long-pointed toes, twisted like a ram's horn; and during the time of Richard II. the toes were lengthened, so as to be fastened to the knees by chains of silver and gold. For three centuries the church and public officers inveighed against this fashion, but not until 1463 was it prohibited by an act of Parliament. Afterwards fashion and taste expressed their extravagance in increasing the width of the toe of the shoe, which Queen Mary was compelled to restrict to six inches; and then followed the elegant buff-colored shoes, with enormous and lavishly embellished tops. The heel at first was a device to make short men look tall, and, like the other parts, has undergone many changes to suit the whims of fashion and taste. The French high heel worn by women is not only very high, but also narrow, and inclines from behind forward, so that its inferior extremity (Onimus), instead of being under the calcanean tuberosity, is directly under the plantar arch; so that increased height, with diminution of the size of the foot, is secured. This style was introduced during the Regency. Under Louis XIV. the heel was high and circular, but not oblique. During the reign of Louis XVI. this objectionable style began to disappear, but has been again revived, and is perhaps more general now than at any previous time. During all these periods the feet were the objects of the most conspicuous vanity, fantastic conceit, and costly decoration. At some of the barbaric courts the soles of the shoes worn by men were made of plates of silver or gold, and the brilliant material of those worn by the ladies was half covered with precious stones. Even as late as the time of George III. a young married couple was presented at court wearing shoes with buckles worth two hundred thousand pounds. Popular patterns have, at different times, been designated by the names of prominent persons, or for a special class of the nobility, but only in a single instance known to the writer has a prince or emperor derived his name from the style and material of the shoe, and that one the brutal Caligula.\* In the seventeenth century the patterns were greatly modified, and made more simple and less ostentatious, but with little regard to the physical well-being of the foot. Towards the close of this century Camper published his work on the best form of shoe, in which he discussed the question from the standpoints of anatomical construction, utility and comfort.

Every intelligent observer must have recognized the potent and pervading influence of prevailing fashions and common customs upon the human mind and body. Few, if any, can alienate themselves from the insidious and ever-changing agencies of association, example, and observation. Habit is not less potential in producing modification of form than in effecting alteration of single parts and disturbance of the functions of special organs. Everywhere, among all civilized nations, in all countries and climates, in every sphere of life and grade of society, in all trades, occupations, and professions, individuality is characterized by diversity of form, inequality of mind, gradations of caste, and varia-

\* The historic details have been collated and condensed from Camper, Dowie, Onimus, and the *American Cyclopaedia*.

tions in temperament, disposition, and constitution. If it were not so, human life would be simply the monotonous change from birth to death.

The causes that have produced these inequalities and dissimilarities in the descendants of a common parentage are as numerous and multiform as the distinctive differences of individuality. Nevertheless, we recognize types that distinguish races, nations, communities, and families. These types refer to modifications of form, and to the mental and personal qualities that characterize peoples, not individuals, and are the results of a complex and constantly changing combination of influences in long-continued, persistent, and habitual operation.

The variations in form of the types of the different races and families are far less marked than their social, mental, and personal qualities. It is not possible, at this time, to trace the gradual, imperceptible, and progressive evolution of these types of form, or to determine the combination of influences, or even the most constant or potential factor of any group or succession of circumstances, which have established the forms now accepted as the standard of race and family development.

The deviations from these types of species and families that distinguish individuality are even more numerous, diversiform, and variable than the differences of types of form; and their causes are equally diversified and composite, but very frequently can be ascertained with an approach to accuracy.

The evolution of the typical and individual forms of the female sex have, undoubtedly, been influenced, and in a measure determined, by the same general order and succession of events and circumstances of life; but the anatomical differences and peculiar physiological functions have so marked the general contour of form that concealment of sex is almost impossible, however skillful the effort to escape detection. These characteristics are not so apparent during the earlier years of life, and it is not improbable that if the physical, mental, and moral training were alike in both sexes, subsequent and mature development would exhibit, in the general outlines of form, fewer and far less obvious dissimilarities.

Age, pregnancy, and maternity are manifest and admitted agencies in the causation of deviations of the female form. Stature and the habits of posture and carriage are perhaps equally potential. The development, tone, and exercise of muscles; sparseness, redundancy, and distribution of adipose tissue; laxness or tension of articulations; the mobility of joints, and degree and extent of the normal curves, are also factors, operating either singly or conjointly, sometimes as primary, and at other times as correlative and compensative, agencies. Asymmetry, either connate or acquired, is the most common of physical defects. Lateral asymmetry is the ordinary result of over-use or disuse of corresponding parts. Disproportion between the trunk and lower extremities is more frequently a natural defect of embryonic and pre-natal development, and is a characteristic of some species and of many families.

From the foregoing considerations it must appear that the study of the natural history of the evolution of the types, variations, and individualities of form would involve an extensive research in ethnology; the determination,



grouping, and sequence of causes ; and an examination of the mechanism of the human frame and its adaptation to the exigencies, mutations, and successions of life. Into such an inquiry I do not propose to enter.

The study of the influence of a single factor, such as I have indicated, is embarrassed by all the conditions of life to which I have referred. Hence the dogmatic assertion of any general law, applicable alike to the different types and diversities of form, is unattainable. Experimentation is impracticable, except under circumstances that would admit of the comparative management of two identical forms, under like conditions and development, from early life to maturity, and even to advanced life: the one being subjected to the artificial props beneath the plantar surface, and the other left to bear her weight upon the unprotected soles of the feet. Of the first, numerous illustrations in process of continuous development are supplied in every town and village in the country. To secure the latter would prove a difficult task in this esthetic age. I must therefore be content with a cursory and general presentation of the subject, and the conclusions reached through the processes of observation and inductive reasoning.

Paget has supplied the following description of a perfect female foot: "Great breadth and fullness of instep, a well-marked great toe, a long second toe, projecting a little beyond the great toe, and a very small, or in some cases almost suppressed, little toe." The foot is divided into the tarsus, metatarsus, and toes ; and the sole is so formed that we rest upon the heel ; the articulation of the instep with the toes, and, externally, upon the tuberosity of the fifth metatarsal bone. The bones of the foot form a double arch, the inner span extending from the heel to the distal end of the first metatarsal bone, and the outer span from the heel to the fifth metatarso-phalangeal articulation. The elongation of this arch is of a two-fold character ; first, by flattening under the weight of the body, and consequent recession of the toes and heels, and lengthening of the foot forward and backwards ; the second, at the articulations of the instep and toes, when the toes are turned upward, and is due to the hinge-like nature of these joints. When the toes are stationary upon the ground, elevation of the heel will produce elongation backwards. This backward elongation is to a considerable extent compensated by the tension of the muscles of the sole upon the heel bone, and the consequent elevation of the height of the arch. This double-spanned arch also possesses lateral expansion.

The feet and legs constitute a complex arrangement of levers with movable fulcrums, hinge-like and socket joints, surrounded by elastic and elongating structures of very variable strength and tensile mobility, so that every deviation of the base of support is so quickly compensated that equipoise is maintained. In walking, the heel touches the ground first, and supports (Onimus) the whole weight of the body for a moment. A little later the point of the foot touches, and assists in preserving the equilibrium by increasing the base. During the second movement of walking the heel is raised (see Figs. 2 and 3), and the weight of the body is shifted more and more to the centre of the foot and to the toes, the latter spreading and pushing the body forward. This last is the movement which displays to the greatest advantage the suppleness and elasticity of

the articulations of the foot, and the adaptation of the arch to receive the weight of the body and to transfer it to its distal pier, while the body is being moved forward by the same act. It is the execution of this movement which gives to the gait of women that elegance and those graceful undulations which are so attractive. Comparative observations show that high and narrow heeled shoes not only displace the supporting base and upper part of the foot, but so modify the movement that there is no longer succession of contact and pressure. Practically both piers of the double-spanned arch strike at the same time, and from the moment of contact the weight of the body is upon the distal pier (Fig. 3) and toes. Hence, walking, instead of being undulating, is stiff and hobbling, and the body advances by jerks.

Fig. 1.

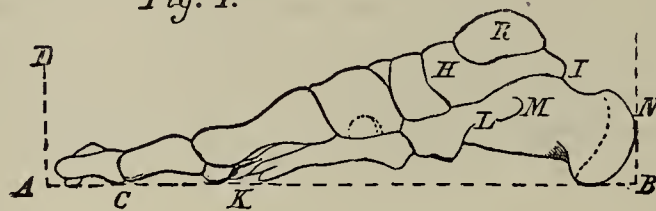


Fig. 2.

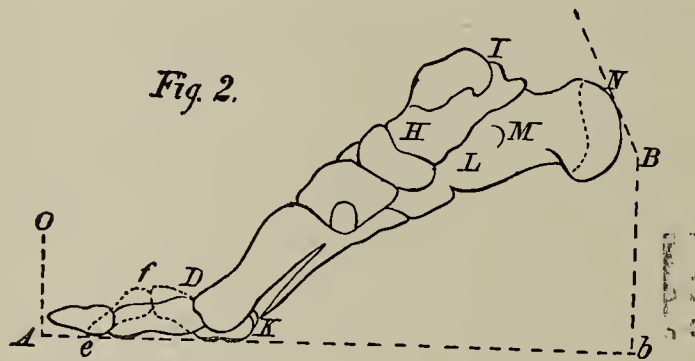
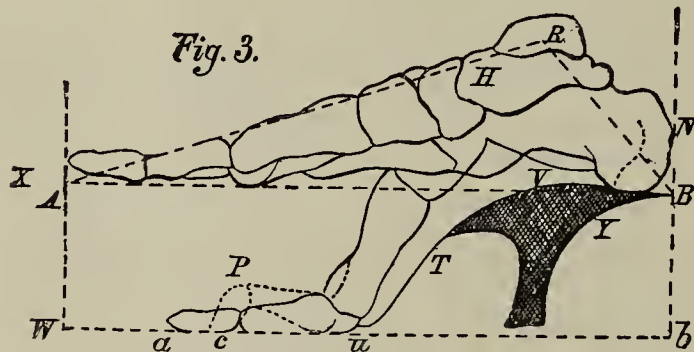


Fig. 3.



(FROM CAMPER.)

The bones of the instep are capable of but very little movement. When standing, the heel bone ( $N M I$ , Fig. 1), the joint at  $K$ , and the great toe  $A C$ , touch the support upon the line  $A B$ . When the feet are shod according to the present fashion, the line  $A B$  is made to assume the concave form shown in Fig. 3 by  $B V T u$ . The instep is made more convex and rounded, which is specially esteemed by a certain class as a peculiar beauty, and the foot is actually shortened (see  $A B$ , Figs. 1 and 2). In those long accustomed to such shoes it is more than probable (Camper) that the heel bone receives the astragalus ( $H$ , Fig. 1) upon the eminence  $M L$ , and the astragalus ( $H$ , Fig. 3) is bent

downwards. This is most apt to occur in young persons, while the neck of that bone remains cartilaginous. The constant elevation of the heel places the body of the pedestrian in the same position as when standing upon an inclined plane, which is not only a weak attitude to sustain weight, but very fatiguing to the muscles thus called into action, and compels the lifting of the knee higher. It imposes also a greater expenditure of force, because a new start is made on stilts from a comparative state of rest at every step. Again, the heel is so shaped and located (Dowie) that it forces up the key-stone of the arch, and weakens the whole structure. If the arch needs support the span of the support ought not to be less than that of the arch, yet the mechanical construction of the shoe heel and shank not only ignores this principle, but may injure an arch needing strength. The alteration of the normal line of the sole of the foot, caused by the rigid fixation of the arch in this strained position, produces atrophy of the muscles of the heel, instep, and ankle, because of the comparative disuse; weakens the lateral and longitudinal arches; increases the curve of the sole, giving rise to a rocking motion and jolting gait, retarding progression and consuming muscular force; bends the toes upward, thus injuring the muscles of the sole by too continuous extension, and those above by excessive contraction; injures the fleshy part of the great toe by too great and constant pressure; cramps the toes; diminishes the elasticity of the foot; prevents elongation of the arch, and the ready adaptation of the system of levers to the variations of stature; calls into action strained muscles, and imposes upon them unaccustomed movements; and so disturbs the natural bearings of all the parts as to interfere with the general health.

A comparison of the normal or perfect female foot and the malformed foot represented in Figs. 2 and 3 ought to convince the most enthusiastic devotee of the evil effects of the French high-heeled shoe. A further examination of the diagrams will show that the toes may also be greatly distorted. The continuous pressure upon the joints of the instep and toes and the tension of the muscles and tendons of the sole of the foot produced by the misplaced heel distorts the toes, as shown by the lines  $Dfe$  in Fig. 2, and  $aPc$  in Fig. 3, so that the tread of the foot, represented in length by the line  $AB$ , is shortened by the distance  $Ae$  in Fig. 2, and  $Wc$  in Fig. 3.

The astragalus receives at  $R$  (Fig. 3) the weight of the body, which is transmitted along the lines  $RB$  and  $RA$ . If the hollow of the foot should be made to touch the ground, the line  $AB$  would be lengthened by the distance from  $A$  to  $X$ . The conditions of superincumbent weight, which would thus flatten the arch and increase the length of the foot, might exaggerate the deformity shown in Fig. 3 in a foot geared in this style of shoe. The diagrams show, furthermore, that the measurements taken in the air, as is usual, of feet thus distorted, are necessarily too short, and the feet will be cruelly pinched in the erect position between the lines  $NB$  and  $AO$  (Fig. 2) by shoes made by such measures.

The casual observation of awkwardness and unsteadiness of carriage of the wearers of high-heeled shoes, and the occasional occurrence of injuries to the feet and ankles attributed to their use, had long ago impressed me with the belief

that the inexorable precept of fashion had lengthened the shoe heel far beyond the conveniences of easy and graceful locomotion, and that results would follow their continued use other, and perhaps graver, than the callosities, bunions, ingrowing nails, sprained ankles, and painful calves which so frequently torment the votaries of this reprehensible practice. But not until I had seen, under advantageous circumstances, not long ago, at a fashionable summer resort, the most advanced style of full toilet foot gear, did I appreciate the probable extent of its influence upon the growing form of the female. It had become the custom for the lads and misses of all ages, from five years to early puberty, to assemble, during the evenings, in the parlor, and engage in the dance. This company comprised many different sizes and forms, which exhibited the grades and phases of childhood development in great variety. The feet and ankles of the larger number of girls were geared in shoes with heels so high and slender as to fasten them in the position as if always walking down hill, the toes being pushed more and more forward. The rigid fixation of the feet in this unnatural position diminishes their size, lessens the spring and elongation of the double and elastic arch of the instep, and confines the muscles, tendons, ligaments, and bones in strained relations, impeding, if not arresting, the processes of formation, waste and repair. It disturbs the articulation of the diversely shaped surfaces of the many small bones comprising the instep, destroys the easy, free, and elastic mobility of the tarsal and metatarsal joints, and transforms the tarsus, metatarsus, and phalanges into a rigid body not unlike a shoemaker's last. The excessive elevation of the heel displaces the centre of gravity, which should coincide with the centre of movement, and transfers the weight of the body, for the most part, from the heel to the metatarso-phalangeal articulations—joints arranged with shallow sockets to facilitate movement in every direction, and to expedite progressive motion, but not to bear the burden of the body-weight.

The movement, attitude, and poise of those whose feet were thus tackled with fashion's latest and choicest pattern of high-heeled shoes were in marked contrast with those of the less ostentatiously dressed, who retained the free and natural play of their muscles and joints, and the capacity and elasticity of motion and posture which restore the body to its balance from any slip or vacillation without apparent effort. The movements of the former were stilted, uneasy, restrained, and executed with caution, under mental strain and with unnecessary expenditure of force. As I sat, evening after evening, in that gay saloon, a silent and unknown spectator, I could see the gradual effacement of the merry dimples and glow of health from their cheeks, the deepening lines denoting wear of body and tire of nerve, and the pallor of distress creeping over their youthful faces, as they limped or staggered to places of rest.

The physical well-being of the feet is a necessary and important part of the general sanitation of health. Pedestrian exercise is the great promoter and conservator of functional activity and constitutional vigor. To enjoy it, and to realize the benefit to the fullest extent, the feet must be healthy and the foot-tackle free and easy. Sore, contracted, and crippled feet, strained and stiffened joints, altered and displaced articulating surfaces, restrained mobility, and alteration of the line of gravitation (any one or all of which results may find their

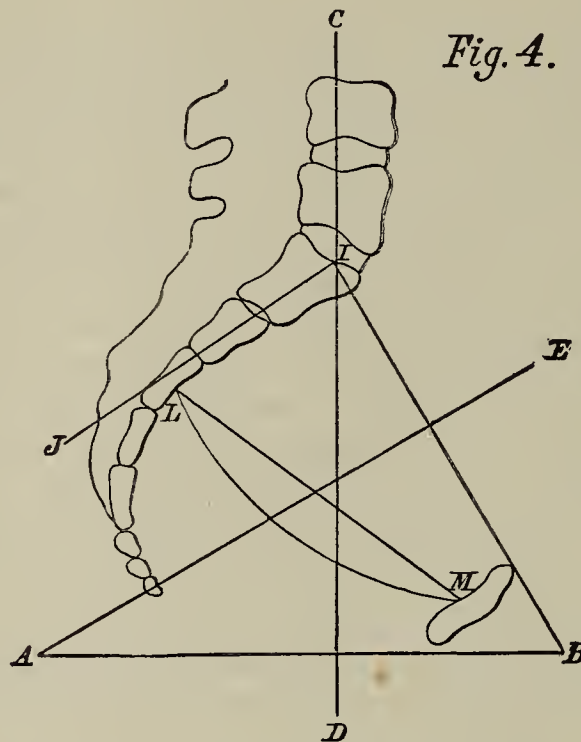
cause in too early and too constant use of high-heeled shoes) impede and augment the fatigue of locomotion, and make walking exercise painful. *Per contra*, they conduce to the acquirement of ungainly habits of carriage; to disproportion of the component parts of the body; and to a sedentary life, with its manifold disturbances of the animal economy.<sup>1</sup> Yet how many matrons throughout the land will entail upon the mothers of coming generations some one or more of these injuries, with the long train of consequent sufferings, rather than abandon the fashion of a shoe!

The injuries are not, however, confined to the feet, their joints and component structures. During the same series of observations I had the unusual opportunity of studying the influence of heel-elevation upon the general outlines of the body; for the exuberance of fancy in toilet was not limited to esthetic decorations of the calves and feet, nor were the devotees of extreme styles narrowed to the ages of growing and immature girls. I could outline the comparative increase of the ankle, knee, and ilio-femoral flexures, and the exaggeration of the curves of the spinal column. These alterations of the natural angles and curves give the fore and aft outline of the general contour an in-and-out or zig-zag course. The degree of the angles and radii of the curves vary according to stature, form, and size. The law of adjustment seeks compensation for the primary deflection by exaggeration of the nearest flexure in the opposite direction. The elevation of the heels displaces forward the base of the line of gravitation, and transfers greater weight to the distal extremity of the plantar arch. The equilibrium of the body can only be maintained by increase of the natural bendings and curve along the lines of the bony framework. These angles and curves are usually so concealed or obliterated by the necessary coverings and decorations of the figure that the effect upon the attitude and pose of person is not necessarily either displeasing or unattractive. The opportunities for embellishment are rather increased than diminished. Art and nature may become co-laborers in the display of artistic costumes and in the arrangement and deception of adornments, if taste and delicacy are not outraged. The exaggeration of the dorso-lumbar curve\* gives fullness to the buttocks, rotundity and plumpness to the abdomen, elongates the chest, and increases the prominence of the bosom; to which in some are added, by the compensating change in the position of the head, elevation of the face, and rounding and filling out of the neck and throat, with effacement of the depressions and irregular outlines—the whole imparting to the general carriage an air of haughtiness and command, which happily is often modified and softened by the innate womanly virtues which find expression in the language of the face and tongue. But I am seeking to present the subject in its physical, and not in its decorative, aspect.

The uterus occupies nearly a central position in the pelvis, is “delicately and unstably poised,” and is supported “on every side by the soft and elastic structures which everywhere surround it as closely as if it were enveloped in a fluid.” Its longitudinal axis is coincident with or parallel to the axis of the plane of

\* This “peculiar bending of the back in the lumbar region” Onimus calls “*l'ensellure*, from its resemblance to the appearance of a horse's back which has been accustomed to the wearing of a saddle.”

the pelvic brim, forming, with the vagina anteriorly, and upon itself at the junction of its cervix and body, very obtuse angles. So that the line of gravitation, which, because of its position and attachments, is through its longitudinal axis, would, according to natural laws, be vertical through its centre of gravity. Its centre of gravity, being supposed (Duncan) to be the centre of its mass, must be above, and the vertical line of gravity must be anterior to, the cervical attach-



PLANES OF THE PELVIS, WITH HORIZON.

- A, B*, Horizon. *C, D*, Vertical line.  
*A, B, I*, Angle of inclination of pelvis to horizon, equal to 60 deg.  
*B, I, C*, Angle of inclination of pelvis to spinal column, equal to 150 deg.  
*C, I, J*, Angle of inclination of sacrum to spinal column, equal to 130 deg.  
*E, F*, Axis of pelvic inlet. *L, M*, Mid-plane in the middle line.  
*N*, Lowest point of mid-plane of ischium. (FROM PLAYFAIR.)

ments. The plane of the brim inclines (see diagram No. 4) at an angle of 60°, and the longitudinal axis of the womb, vertical to this plane, inclines at an angle of 30°. This relation, though not mathematically accurate as thus expressed, is the generally accepted rule of normal anatomical relation in the erect position of the body, except so far as it may be disturbed by the exigent oscillations, within a limited arc, of a body so delicately poised amidst contiguous organs subject to such fluctuating conditions as the female pelvic viscera. Then, so long as the coincidence or parallelism of these axes is maintained, so long will the uterus approach the horizontal line, in direct proportion with approximation of the plane of the brim to the vertical line; consequently, as the inclination of the plane of the brim increases or diminishes, so, reversely, will the uterus, through its long axis, approach or recede from the vertical line.

The weight of the trunk is balanced upon the ilio-femoral articulations, and “the centre of gravity of the parts above is (Duncan) nearly vertically over

these articulations." The line of gravitation and the axis of the body,\* though not universally believed to be coincident lines, are, with sufficient accuracy, represented by a vertical line bisecting a horizontal line passing through the centre of the ilio-femoral articulations. The centre of gravity and line of gravitation vary with every backward and forward movement of the trunk upon these joints; and the inclination of the womb follows the variations in the inclination of the pelvis, according to the law as previously stated. In an elastic and flexible body, like the human form, with its numerous deviations from a straight line, nature re-adjusts disturbances of equipoise by compensating alterations of the bendings and flexures.

The question now arises, How are these relations of the natural conformation influenced by the excessive and constant elevation of the heels by the use of high-heeled shoes? The primary deflection of the line of gravitation takes place at its base, The ilio-femoral articulations being the pivot upon which the body is balanced, and the fulcrum of its support, and the long arm of the lever being all that part of the stature above these ball-and-socket, and most movable of the limb-joints, readjustment of equipoise is necessarily most easily and quickly restored by increased flexion at the hip, with displacement backwards of the pelvis, which sooner or later will find its compensation in exaggeration of the dorso-lumbar curve. The law of compensation which determines other and permanent alterations of form is well defined, though subject to many variations dependent upon size, height, general conformation, and habit of carriage.

This law may be briefly stated as follows: Every primary curvature is compensated† by a second and generally equal curve in the opposite direction, usually occupying the part of the column immediately adjoining the first, and may follow the column in extended sequence of two, three, and even four deviations. The compensation in lordosis is obtained by increased inclination of the pelvis. The ordinary anterior curvature in the loins involves a corresponding displacement of the pelvis backwards, and more especially when the lumbar curve is itself compensatory and consequent upon too great inclination of the pelvis. The latter is most frequently the primary deviation. Pelvic inclination and dorso-lumbar curvature bear a direct and positive relation to each other, the excess in either being compensated by a corresponding excess in the other, so that cause and effect react upon each other, producing increased backward displacement of the pelvis and greater spinal curvature. In curvature of the lumbar region forwards, and "in excessive inclination of the pelvis, with which the lumbar curve coexists and to which it is due," the chest is increased in length; and while the breadth of its lower part is strikingly greater than natural, it is very pointed above, and flattened from before backwards. Of course

\* A summary of the conclusions of Rokitansky.

† In the diagram of Hodge ("Disease Peculiar to Women," pp. 317 and 328), the axis of the body is represented by a line touching the anterior surface of the third lumbar vertebral articulation, and passing through the body of the ossa pubis. In his "System of Obstetrics," p. 30, Hodge says, "The axis of the body, when in the erect position, may be represented by the line of gravity. This line of gravity, or vertical line extending from the top of the head to the ground, passes through the lumbar vertebræ, the base of the sacrum, and cavity of the pelvis a little anterior to the tubers of the ischia, bisecting a line drawn through one acetabulum to the other."

the ordinary movements of expansion and contraction of the chest are disturbed, the diaphragm is depressed, the abdominal organs are displaced downwards, and the vertical pressure of the superincumbent viscera upon the pelvic organs is increased. This pressure does not impinge upon the top of the fundus of the uterus *in situ naturali*, but upon its posterior surface. The tendency, therefore, of (Hodge, Duncan) all pressure from above, the accumulated weight of the organs, aided by the contractions of abdominal muscles, is to press the fundus downward towards the pubis, and to carry the cervix towards the hollow of the sacrum. When the organs are healthy and in a natural position the forward proclivity of the fundus is prevented by the presence of the bladder and small intestines in front, and the ascent of the cervix is resisted by the mass of intestines in Douglas's cul-de-sac. "The bladder (Aveling), when filled, is a heavy organ. In the erect posture, when the pelvis is normally inclined, it rests upon the pubes; but when the pelvis is tilted back, the whole weight of the urine gravitates directly into the pelvic cavity, and presses upon the anterior wall of the vagina. Should this be weakened by disease or child-bearing, it gradually descends and allows the bladder to fall back, describing in its progress an arc of a circle around the pelvic bones, to which it is anteriorly attached." Thus, in cases of excessive pelvic inclination, the viscus, which is directly instrumental in the redression of the womb and in the preservation of its mobility, becomes a potential factor in establishing a malposition, and complicates the uterine displacement with frequent, difficult, and painful micturition. Cystitis, as the necessary result of incomplete evacuation, may also add its chain of suffering, unsatisfactory cure, and frequent relapses. The rectum is an important organ, and it is not improbable that the disturbance of its postural relation with the sigmoid flexure, by excessive inclination of the pelvis, may promote the establishment of the habit of constipation, which is so common among females, and so often the cause of no less intractable, but even more painful, affections.

The uterus is so delicately poised *in situ naturali* that it is probably never at rest during the lifetime of a woman. The varying conditions of vesical repletion and collapse, of rectal emptiness and distension, and the movements of respiration keep it constantly moving up and down a plane acutely inclined to the line of gravitation, and to and fro on its transverse axis. This mobility and incessant movement constitute the necessary and most essential method of uterine hygiene. It is this local exercise that promotes healthy circulation, expedites the processes of change and repair, prevents congestion, maintains normal nutrition, and preserves functional activity.

The vascular, postural, and nutritive disturbances growing out of deflections of the skeleton, which I have attempted to show, may find their starting-point in too great and habitual elevation of the heel, are not necessarily confined to the bladder, uterus and rectum. All the tissues and organs, the vagina, ovaries, Fallopian tubes, ligaments and fasciæ, may become involved. Hyperæmic conditions, distortions and displacements, either singly or collectively, may follow in an extended sequence of local and general disorders, but menstrual disturbances and vaginal discharges are probably more common.



To enumerate these affections would extend this paper beyond a reasonable limit. I might show that diminished mobility of the uterus and excessive inclination of the pelvis, with other and consecutive alterations of form, enter also into the causation of posterior deviations and descent. The moment the fundus, in posterior oscillation, passes in the arc of rotation beyond the point of greatest tension of the round ligaments, that moment their action carries the fundus down the arc of rotation towards Douglas's cul-de-sac. This movement would be aided by vesical repletion, deflection of the line of gravitation and of the vertical pressure of the superincumbent viscera, transference of the intestines from the anterior to the posterior surface of the womb, and by relaxation of the abdominal walls.

The equipoise of the body upon the ilio-femoral articulations must be preserved, and Duncan has called attention to the fact that, while "the small and especially short-bodied women" seek the readjustment of the centre of gravity by moving backwards the head and shoulders, "the tall and long-bodied" seek it by moving forward the supports, which is accomplished "by diminishing the angle which the pelvis forms with the horizon." This change in the pelvis is analogous to that taking place in old age, when the forward stoop is counterbalanced by it. The same distinguished authority points out the fact that when adjustment is effected by backward inclination of the head and shoulders, the hips become prominent, indicating "a probable considerable obliquity of the pelvis." In the other class the hips are flattened, indicating lessened obliquity and elevation of the pelvis. These mal-relations of the pelvic and corporal axes are consequent upon pregnancy, and may also follow acquired habits of carriage and posture, such as I have suggested ensue from the constant and habitual elevation of the heel.

I might also trace the obstacles which excessive inclination of the uterus, and consequent backward displacement of the os and cervix, present to the transmission, tubulation, and lodgment of the sperm cell, impeding the processes of insemination and fecundation, and producing sterility. I need not pause to consider the obstructions to parturition which excessive pelvic inclination may offer, or to trace them back to the gearing of the feet in earlier life. They are sufficiently obvious to every obstetrician.

Onimus says the local and functional troubles are frequently mistaken for strange manifestations of hysteria, varying according to the temperament and predisposition, and very often concealing the true nature and origin of chronic invalidism. In Paris young girls often complain of violent pains in the muscles of the leg, which extend along the external region of the calf to the thigh. A sharp pain from the sole of the foot to the external malleolus is the most frequent initial symptom. The articulations of the knees are many times equally painful, simulating the condition one feels after descending from a high mountain, which has occupied several hours. But the long peroneal muscle is the one most often affected, because it is most fatigued by the irritation transmitted by its tendon from its insertion at the great toe along the plantar arch. The constant tension of certain muscles, to maintain the equilibrium rendered necessary by the height of the heel, produces painful cramps and a sensation of constrict-

tion, even when not walking, and young girls are compelled to seek relief from the lancinating pains by rest in bed. It is easy to comprehend how the general health may be influenced by such functional and local disturbances, and when such conditions exist in women, where the nervous systems are always waiting for an opportunity to become troublesome, we may look for serious pathological consequences.

In the foregoing presentation of the subject, I have endeavored to confine the discussion to the physical aspect of the question, and to trace out the relation of cause and effect which may subsist between the prevailing fashions of foot gear and many of the maladies which come under the observation of the gynæcologist.

ARTICLE III.—DYSTOCIA IN A CASE OF TWINS, WITH A LUSUS NATURÆ IN ONE OF THE CHILDREN. Notes of the case. By EDGAR W. ROBERTSON, M.D., Onancock, Acco. Co., Va.

March 9th, at about 1.30 P.M., I was requested to visit Mrs. R., in her second labor, about seven miles in the country, the messenger alleging that a child was born about 8 o'clock A.M., and another one to be delivered. Before reaching the patient another messenger met me, telling me to hasten on, as they regarded her condition serious; and as I drove in the yard gate some one informed me that she was dying.

I found one child born as stated; the woman in agony with a second child, which was presenting head and feet, and, giving her morphia, followed by a stimulant, then chloroform, essayed to change position of child by manual measures; then applied the forceps as best I could in the condition and position of parts, but both times they became disengaged. I then turned my attention to the crotchet, but, upon reflection, desisted before perforating with the scissors, and concluded to send back to town to Dr. L. to assist me; the friends, in the meantime, were clamorous for delivery, on account of imagined failure of strength on the part of the patient. After well-nigh straining my muscular system to its fullest capacity, I encouraged the congregation (too great an audience under the circumstances) of friends to be "cool," and gave the patient the attention best to my ability, until about 6 o'clock, when Dr. L. arrived. I pushed the chloroform further at his suggestion, and he attempted to turn, but was not successful. At his request, I again introduced my hand, and finally, after repeated attempts and failures, succeeded in bringing one foot near enough to the os vaginæ to admit of the passage of a strip of new, stout calico around my hand or wrist, by Dr. L., and together we slipped it over my hand, and beyond, and then around child's ankle, and, being tied, pulled child down, and delivered, of course, by pedalic version. The child was "still-born."

The woman did well, and scarcely had any fever during the eleven days seen.

And now to the first child: As formerly stated, this child was born some seven hours before my arrival (from 8 A.M. to about 3 P.M.), and as the midwife failed to notice anything unnatural about it, or report it if she did, my attention was not especially turned to the child, except to prescribe spirits of nitre for a little temporary urinary retention, until the 12th, when the mother informed me that she did not believe it would live, because it had no "vent" to its bowels.

I immediately had the child stripped, and, on inspection, found a well-formed male child, with this exception: not the slightest sign of an anus, nor any bulging of the bowels. The child vomits, and nurses some.

13th, 5.40 P.M.—Again examined, and Mrs. C. and I saw and perceived the odor of meconium on the napkin; and on further watching, saw solutions of it pass from the penis. The child has natural ways—sleeps and nurses. The raphe reaches from the penis to a point just over the end of the coccyx. No bulging of the parts in the least—they are as yielding and slack as linen.

14th, 3.30 P.M.—“Baby living?” “Yes, sir.” “Pass any more?” “Yes, sir; just like it was last night, precisely.”

On inspection, find napkin besmeared with dark, offensive meconium, and the same dark fluid oozing from the urethra. It has a fishy-like odor. Abdomen tympanitic, as ascertained by percussion. Nurses but feebly; not vomited today. Sleeps pretty nearly all the time.

Put the thermometer in the axilla and it would ascend no higher than  $96^{\circ}$ .

15th.—Comments: That a fluid, such as urine in the bladder, will tend to keep feces soluble, and thus facilitate passage, would be admitted by most non-medical minds, as I remember to have interchanged views to that effect with some on that point. But on reflection, my experience with searchings for gallstones, by making fecal solutions by means of water passed through a sieve would seem to favor the practicability of such a passage through the urethra. Something will depend upon the size of the channel, or the nature of the communication with the bladder. There can be no doubt, however, of such fecal passages in this case. The urethral discharge was different at different watchings; for, after noticing that of meconic nature, also subsequently saw that of urinary character dribbling (not continuously) from the penis, over the testicles.

This would point to one of two things: Either that the feces were washed from the bladder as it was there deposited or dissolved; or, another passage or tract leading through to the upper part of the urethra below the cystic cavity.

3.10 P.M.—At the house they tell me the baby nurses more freely than yesterday; has not vomited, and passes the characteristic discharge. On inspecting the napkin find it so, but less than that found on yesterday's examination. Child cries strongly.

4.30 P.M.—Thermometer  $96^{\circ}$ . The discharge passed in my presence is more urinary, though the soiled napkin shows the characteristic dark passages.

4.45 P.M.—Just met Dr. L. on street, and showing him one of the napkins obtained a day or two ago, agreed with me that it was meconium.

17th, 3.55 P.M.—The family testify that it nurses heartily, cries naturally, sleeps well, and the mother now “supposes it is going to live.”

(This is the 9th day.) 3 P.M.—Thermometer  $98^{\circ}$ . The discharge more of a yellowish-green now.

19th, 10 A.M.—The baby sleeps, nurses, evacuates “same as he generally does” (mother). Inspection evidently shows fecal passages on napkin of a darkish greenish-yellowish color. The feet and hands have bluish appearance, which the mother has noticed all along. No evidence of the establishment of any other fecal outlet, but thought yesterday I observed little circumscribed

bulging or firmness in the raphe, about the size of a grain of wheat, when I made the skin tense. I can see no evidence to-day.

The child is somewhat jaundiced, especially in facial region. The child's expression I think less distressed to-day; seems less narrow. The prepuce slightly swollen, and the scrotum and joint flexures on either side have a slight tendency to erythema. The child's chance seems to be in favor of life, perhaps, but expressed by the term precarious, as it might be made an easy victim to death.

20th.—Just met Dr. L., who, on being informed by me the child was still living, and passed its feces in spots on napkin something like a chicken, supposed the urethra must be large. But informed this was not the case. Seemed to think it would die—though the books speak of such cases. The child died a few days afterwards. No post mortem

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## RÉSUMÉ OF ORIGINAL ARTICLES

IN OTHER JOURNALS.

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PLEURAL VICARIOUS MENSTRUATION.—Dr. J. H. Lee (*Southern Practitioner*, March, 1884) reports the following case: A sixteen-year old plethoric and highly-nervous girl had not menstruated for four months. He found that she had an intense headache, flushed face, coated tongue, deeply congested, hurried respiration, pulse 120, temperature 102, severe pains in the side resembling in character pleuritis, and dragging pains in the pelvis. The young lady, according to her mother, had been quite regular until the present, which she thought to be about time for her turn. The diagnosis was pleurisy, complicating a natural inefficiency to re-establish the menstrual function. She was ordered a free purge (saline cathartics), with opium and quinine, in conjunction with a hip-bath, and blisters to the side. Next morning, to his disappointment, Dr. Lee found not one symptom allayed. The blister instead of relieving, had added to the pain in the left side. Addressing the young lady in plain and positive terms, she said that since her twelfth year she had intermitted from two to three months, up to four months ago, since which time she had seen nothing, except one day at the beginning of the present illness, which was suddenly checked by getting her feet wet. At each menstrual molimen, when the discharge did not appear naturally, she would be troubled with epistaxis. Dr. Lee followed nature's suggestion, by taking at least ten ounces of blood from the arm, followed by instant relief.

OÖPHIORECTOMY.—Dr. H. R. Bigelow (*Cincinnati Lancet and Clinic*, March 29, 1884), says that speying is always a matter of very serious consideration, and it becomes doubly so in those patients who happen to be within the pale of kinship. The temptation to its general adoption by gynecologists is a great one—younger men will practise it for the sake of

reputation and statistics, and older men as a plausible way out of a puzzling dilemma. However little it may affect the child-bearing function, already rendered practically impossible in women suffering with degenerated ovaries, and in however slight a degree it may influence the feminine graces, the fact remains that the woman will always feel that she has been deprived of a distinctive, integral factor in her sexual make-up. Except in especially aggravated cases, he thoroughly believes in the efficacy of medicinal treatment. If the patient can be controlled for a sufficiently long period of time—months, or even years, perhaps—watching every symptom and meeting each emergency; if the physician regulates hygiene upon an intelligent basis, reduces congestion by appropriate treatment, remedies the dislocated uterus in such ways that the remedy may not be worse than the disease; if the patient is not cured, her life will be so rendered bearable that she will never think of having recourse to surgical interference. Dr. Bigelow never yet used a pessary in any of these cases complicating a displaced uterus, and probably never will if he continues to hold to his present way of thinking. Only in exceptional cases does he use a pessary in any event, because he is firmly convinced that the whole theory governing its use is radically wrong; and in the same degree that he deprecates the indiscriminate use of pessaries, so he condemns the use of the sound within the cavity of the uterus for its restoration. He does not mean to affirm that there are not certain conditions in which the sound, in scientific hands, is of great avail; it is against its general use that he is opposed. In looking back over the histories of his cases, one of whom has now been under observation for five years, he sees no reason to regret the postponement of surgical interference. A most aggravated instance has now been under care for some years—a long period of time—but when weighed in the balance with the suffering that preceded treatment, it shall count as nothing. In this woman every painful symptom has been gradually alleviated; and while the steps to improvement have been most insensible to herself, and while she has had much to discourage, she has the assurance now of a bright future, and with all the attributes of her sex untouched. The opinions of Dr. Bigelow are borne out by Dr. Battey's comment (*Chicago Medical Review*, vol. 5.) on Dr. Tait's numerous oöphorectomies: "That if he (Dr. Battey) could get as good results from the operation as Tait he would do it oftener."

FRACTURE OF THE SIXTH CERVICAL VERTEBRA.—Dr. McGrew (*Medical Age*) reports the following case: The patient was a nineteen-year old boy who had been tossed by a bull. On examination, there were no marks of external violence, with the exception of a scratch across the back, in the cervical region, evidently made by the bull's horn. The legs felt as if they were dead, and examination revealed marked paraplegia. There was found great tenderness on pressure in cervical region of the spine, but no deformity. The patient was re-

moved to bed and placed in recumbent position, with directions to apply ice to seat of injury and to observe perfect rest and quiet. By the same evening there was no marked change. Some distention of the bladder, which was relieved by flexible catheter. On the evening of the next day the patient became quite restless. The thermometer registered in the axilla  $105^{\circ}$  F., and between the thighs  $107^{\circ}$  F.; pulse averaged 90. He was ordered potassium bromide, gr. xv.; chloral hydrate, gr. x.; to be repeated every two hours until sleep was produced. The bowels were kept open by enemata, and catheterization was practised twice daily. No unusual amount of cystitis occurred. The patient was able to partake of considerable nourishment from day to day. No signs of improvement occurred as regards the paralysis, but, on the other hand, the paralysis of the upper extremities increased. Ten days after the injury, respiration became markedly affected, and from that the patient gradually sank, dying twelve days from the receipt of the injury. Autopsy revealed a complete fracture, through the body, of the sixth cervical vertebra, also through the superior articular process, with marked displacement. Fracture extended through the lamina of the fifth cervical. The cord was very much softened and broken down, as a result of inflammatory process. It is to be regretted that a more careful autopsy was not made.

TREATMENT OF SYCOSIS.—Dr. Gamberini (*Journal of Cutaneous and Venereal Disease*) says: Wilson usually advises avulsion of the hairs and the application of parasitocides, especially corrosive sublimate, or iodide of sulphur in ointment (2—30). Of the same therapeutical opinion are Tilbury Fox, Anderson, Behrend, Piffard, Duhring, Bazin, Hardy, and all those who recognize the parasitic nature of the disease. In his clinic Gamberini follows the following practice: As epilation is troublesome and often painful, he commences with emollient cataplasms in union with belladonna. After this he removes the hairs as completely as possible, and then applies the parasitocides, using by preference the oil of cade and tincture of iodine. When the sycosis is severe with extensive infiltrations, excisions and carbolic lotions are used. It should be remembered that sometimes alcoholism, syphilis, scrofula, and arthritism complicate the trouble, and should be taken into serious clinical consideration and the appropriate remedies adopted. Before treating the case, however, it is important to ascertain whether it is simple or parasitic sycosis. In non-parasitic sycosis, if the disease is produced by a local cause, the removal of the same is necessary. The crusts are to be softened and removed by oily or slightly carbolated lotions. After this, epilation should be practised as in the parasitic form, insomuch as the hairs act as foreign bodies and tend to prolong the inflammation. If epilation is not performed, the inflammation may run so high as to completely destroy the follicle. Gamberini therefore urges artificial epilation. This sometimes becomes troublesome, because the hair becomes firmly

fixed during the early period of the peri-folliculitis. The hairs having been removed, it is necessary to seek the resolution of the peri-follicular inflammation, which is accomplished with diachylon or Vigo plaster, with *sapo viridis* or potash, diluted with glycerin or vaselin. Sulphur, sulphur iodide, white or red precipitate, or mercury biniodide may be used. If the pus is deep, it must be let out with the lancet. Plumbe and Wertheim recommended the daily shaving of the hairs. This method may have its advantages, but it is usually disagreeable to patients, and does not compare in usefulness with the epilation. Duhring especially recommends external treatment, at the same time paying attention to the patient's general condition. He insists on the removal of the irritating causes, and the avoidance of the extremes of heat and cold. Veiel cuts the hair short, and detaches the crusts with poultices, then applies an ointment composed of two parts of tar and one part *sapo viridis*, and thus facilitates the extraction of the hairs. After the completion of the epilation, he applies acetic acid. This is followed by a crust which falls off in three or four days. These operations are to be repeated, completing the treatment with a sulphur ointment for four weeks longer. The shaving should be continued four months to prevent a relapse of the disease. Stewart recommends potash nitrate dissolved in a large quantity of water, bathing the parts several times a day. He states that he has accomplished rapid cures. Having observed that simple syccosis frequently co-exists with alcoholism and arthritism, Gamberini resorted, with benefit, to the internal use of alkalies, and the external use of ointments, at first with a base of potassa carbonate, and then of flowers of sulphur, always premising epilation. In accord with Fox, he had seen advantage from the internal use of Donovan's solution, when the syccosis proceeded from herpetism or was connected with syphilis.

TUMORS OF THE ABDOMEN.—Dr. Jacobi (*New York Medical Journal*) cites the case of a four-year-old boy whose abdomen had begun to enlarge last September. At the time of presentation there was considerable tympanitis. Besides this condition, a rather large and firm tumor could be felt in the right hypogastric region which was scarcely, if at all, movable. Several smaller nodules could be made out in the neighborhood of the large tumor. Examination per rectum gave a negative result. The functions of the urinary apparatus and of the bowels were normal. There was an area of tympanitic percussion sound between the tumor and the liver, proving that there was no connection between them. There was no history of inflammation of the peritonæum, and therefore the diagnosis of perityphlitic exudation could be excluded. It was probably a case of multiple lympho-sarcoma. Dr. Gerster, referring to the difficulty of diagnosis in cases of intra-abdominal tumors, mentioned the case of a woman who had a swelling in the abdominal cavity which an expert diagnostician thought was a sarcoma of the mesentery. When

Dr. Gerster examined the patient he found the large intestine full of scybala, which it took weeks to remove. When this had been accomplished the tumor had disappeared. Dr. Jacobi remarked that the boy presented had never suffered from constipation, and that therefore there could be no suspicion of an accumulation of fæces. It should, however, be remembered that diarrhœa results from constipation, and that popular evidence on this point is therefore very fallacious.

VACCINIA AND VARIOLA.—Dr. Voigt (*British Medical Journal*) concludes, from the results of careful experiments: 1. It is possible to create vaccine by the inoculation of the calf with lymph from the pustules of human beings the subjects of smallpox, but success must not be expected in every case. 2. The energy of variola-vaccine obtained in this way is such that it is not fit for the purpose of vaccinating human beings until it has been several times transmitted from calf to calf, or from ox to ox, and its intensity has been thus diminished. 3. In the first year this new lymph has a greater protective power than animal lymph of older stocks. 4. Vaccinia and variola are derived originally from the same contagium, and give to those affected by them an immunity one against the other. 5. The duration of this immunity depends on the intensity of the pathological process. 6. After the lapse of twelve years, persons who have been attacked with smallpox show the same susceptibility to vaccination as those who have been vaccinated at an equally remote period; consequently, children of twelve years of age, vaccinated in infancy, present a moderately favorable soil for the poison of smallpox. 7. Therefore, revaccination of all children at or even after the age of twelve is highly to be recommended. 8. Animal lymph, originally very active, diminishes in efficacy when transmitted from calf to calf sooner than humanized lymph transmitted from arm to arm. On the whole, that is, after a long time, humanized lymph gives better results both in man and beast; whence it follows that animal lymph from old stocks give less success than retro-vaccine of the first generation. 9. Carefully generated, and in well ventilated and regulated stalls, variola-vaccine is the most energetic of all, not only when taken direct from the calf, but especially in humanized form.

BULIMIA AN ELEMENT OF PÆDIATRIC PROGNOSIS.—Dr. E. B. Hadra (*American Journal of Obstetrics*) calls attention to an aberration of appetite as an element of prognosis in children's diseases. He says: In exhaustive diseases, such as diarrhœa, typhoid fever, and others, after having for days persistently refused nourishment, the child suddenly swallows with avidity whatever is offered, food or medicine indiscriminately. Even quinine will be taken as readily as sugar. Such an occurrence, in his experience, frequently warrants an unfavorable prognosis. An explanation of this sudden change may, perhaps, be found in the cessation of cerebral function, through the want of nutri-



tion or of stimulation. Combined with this behavior is often found the Chyene-Stokes breathing, and this coincidence goes far to support the above explanation, as this respiratory disorder has been traced also to the want of stimulation of the respiratory centres.

ZINC OLEATE.—Dr. Stelwagen (*Medical and Surgical Reporter*) says that oleate of zinc is a dry, white, pulverulent, impalpable powder of a soapy touch, resembling powdered soapstone; if pure, it should make a clear solution with oils, lard, etc., over a water-bath. It may be used either as a dusting powder or as an ointment. An ointment of one or two drachms to the ounce of cosmoline or any fatty base is most commonly used. Sometimes the oleate made up in ointment form with oleic acid seems to be more efficacious. A very good way of prescribing it is as follows: ℞. Zinci oleatis; acidi oleici, aa ʒj.; petrolati; cerati simplicis, aa ʒiij. Ft. ugt. To a great extent this oleate replaces the oxide of zinc, and may be ordered whenever that substance is indicated. Acute vesicular eczema may be successfully treated with the application of black wash and the subsequent application of an ointment of oleate of zinc; the wash is to be applied with a sponge or soft rag for several minutes two or three times daily, after each application has dried, a small quantity of the ointment being gently rubbed over. In some instances, the disease seems to be more favorably influenced by the oleate employed as a dusting powder. When such is indicated, the following will prove an eligible formula: ℞. Pulv. zinci oleatis; talci veneti, aa ʒiij.; amyli, ʒij. M. This is to be dusted over the parts several times daily. The same plan of treatment is frequently of advantage in all weeping eczemas. In intertrigo, a dusting powder, such as given above, is very comforting. This oleate makes a harmless toilet powder, and combined with talc and calamine, as in the formula below, will make an excellent powder for such purpose: ℞. Calaminæ præparatæ, ʒij.; talci veneti; zinci oleatis, aa ʒviij.; olei rosæ, q. s. M. S.—Toilet powder. This last may also be employed as a dusting powder in moist eczema and similar inflammations.

FATAL CASES OF CHOREA.—Dr. J. Rudisch cites (*New York Medical Journal*) three cases of chorea, with fatal termination, observed at Mount Sinai Hospital. The first was that of a nineteen-year-old boy, admitted to the hospital eight years ago. The symptoms were slight at the beginning, but in spite of active treatment with arsenic, they increased in severity. The patient's temperature rose to 104°, and even 105° F. Chloral hydrate and other hypnotics were employed in order to stop the jactitations and to induce sleep. Dr. Adler made a post-mortem examination, and found the vessels of the pia mater congested, punctiform hæmorrhages in the gray substance, and œdema of the brain. The second case, that of a fifteen-year-old girl, was similar in its course to the first. The third case was that of a girl of the same age, who had

been in the institution twice. The first time she was under the care of Dr. Heineman, who examined her heart, but could not detect anything abnormal. When admitted for the second time, she came under the care of Dr. Rudisch, who, upon examination of her heart, heard a systolic murmur, but found no enlargement of the organ. Ether, hypodermic injections of morphine, and large doses of potassium bromide were needed to control the violent jactitations. Two days before death the temperature rose to 101°. On the night before the fatal issue one-eighth of a grain of hyoscyamine had to be given subcutaneously in order to produce sleep. At the autopsy made by Dr. Heineman, the pia mater was found to be congested, the cortical substance of the brain was studded with minute hæmorrhages, and there was stenosis and insufficiency of the mitral valve. Dr. A. Jacobi said that the changes in the brain were evidently of a secondary nature, produced by the chorea, and should not be looked upon as the cause of the disease. Dr. Rudisch said that there had been no positive history of rheumatism in any of the cases reported, but no value could be attached to this circumstance, because rheumatism in children was overlooked as a rule, or confounded with "growing pains."

The question naturally arises, was the termination not due to treatment? chloral hydrate produces bad effects in cardiac disease, and the dose of hyoscyamine was very unnatural.

"AN OBSTETRICAL AMPUTATION."—Dr. W. T. Taylor (*Medical Bulletin*) reports the following case under the above title: The primipara had been in labor during the day, and an old doctor (fifty years in practice) was called, who when he arrived found a hand presenting at the vulva, which he did not know what to do with. In his efforts to deliver the child, he had actually pulled its arm off from the elbow. To assist him in his dilemma he sent for his grandson, and they had endeavored to apply the forceps over the child's shoulder. Being frustrated in this attempt, they sent for a "professor" to help them out of their trouble, but he did not come. They then called upon a surgeon, but he refused, as not being engaged in midwifery practice. Being unsuccessful in obtaining help down town, they concluded to seek assistance a little nearer home, when Dr. Taylor's friend was sent for, who, not wanting the responsibility of the case, came for him, telling Dr. T. of the torn arm, which he had found under the foot of the bed. On arriving at the house, Dr. T. had the old doctor and his relative summoned before the husband of the patient, to make their statement of the case up to the time when Dr. T.'s friend was called, so as to exonerate him from any connection with the torn arm. This was done with the additional remark by the grandfather that the arm came off very easily, and if anything wrong had been done he was responsible for it. On making an examination, Dr. Taylor found the stump of an arm presenting, and the head lying in the right iliac region. He easily introduced his hand, and as the head was small, soon brought it down to a vertex presentation; a

loop of the umbilical cord accompanied it, but, as the child was dead, he left the case to nature, for it would soon be born without any further trouble, which occurred about an hour after his departure, greatly to the surprise of the old doctor, who had told the family that the patient could not be delivered without the forceps.

ACCIDENTAL HYPNOTISM AND OPHTHALMOLOGICAL OPERATIONS.—Dr. L. Connor (*Detroit Lancet*) cites the following case of accidental hypnotism, which proved of value in an operation. The patient had had a corneal abscess, which he had for some time treated himself. He had a morbid fear of anything like an operation. He had a pterygium on one eye, which Dr. Connor advised him to have removed, but he refused to have any operation made on his eye. One day Dr. Connor asked him if he was ready to have that pterygium taken off. He did not at once declare that he would not have it done, and to Dr. Connor's surprise promised to come that afternoon. He kept the appointment, followed the doctor's directions without the least hesitancy, went through the operation without the use of an anæsthetic, behaving admirably under it; but when it was finished seemed quite incredulous as to his having submitted to it, and to this day he cannot understand how he could ever have given his consent, and seems to have no recollection of the circumstances.

SURGICAL USES OF COLLODION.—Mr. Sampson Gamgee (*Birmingham Medical Review*) mentions some uses of this therapeutic agent, which he thinks is not in general sufficiently appreciated or utilized. He remarks that, being composed of ether, gun-cotton and spirit, collodion is a powerful anti-putrescent; and, by ready evaporation and contraction, it exercises the dual antiphlogistic power of refrigeration and compression. In acute orchitis he knows no plan of treatment so simple, rapid and satisfactory, as coating the cord and scrotum with layers of collodion, by the aid of a camel-hair brush previously dipped into it. The sensation is momentarily sharp, the shrinkage rapid, and so is the subsidence of the inflammatory process. To swollen parts which cannot well be bandaged, collodion is especially applicable for the compression attending its contraction. The author was consulted in the case of a good-looking boy considerably disfigured by a red and swollen nose, which became very pale, and visibly contracted just after being painted with successive layers of collodion. The application was repeated three times in the succeeding fortnight, with the effect of producing shrinkage of the organ to its natural size and color. When the nasal bones are fractured, Mr. Gamgee recommends as a very effective mould for keeping them immovable, after adjusting them with the fingers, the following: Place over the nose a thin layer of absorbent cotton soaked in collodion; as it dries, another layer of cotton and more collodion, taking care that the application extends sufficiently on each side to give

buttress-like support. The patient compares the feeling to the application of a firm bandage on the nose, and the bones consolidate effectively under the shield, which may be renewed as it cracks and peels off. In the dressing of fresh wounds, the author speaks highly of the same. A man had suffered for ten days from a wound of the shin inflicted by a carriage-step. Water dressing had been applied continuously, and the agent to be applied after thoroughly drying the surface. Its effect is also good when applied in other than fresh wounds, as in a case cited where surface of the sore had suppurated, and its edges for some distance around were red and tender. The limb was raised to empty it of blood, dried with an absorbent, and painted with collodion, then bandaged, and cicatrization was perfect in four days, the patient having sustained no interruption of his use of the leg.

ASYLUM MANAGEMENT.—Dr. S. V. Clevenger, of the Cook County Hospital for Insane (*Medical Journal and Examiner*, March 1884), says: The visiting physician system, as formerly organized, has proved valueless. The State should employ well recognized skilled specialists, in addition to the regular resident physicians. By recognition is meant repute among reputable physicians. What has the specialist accomplished? what does he know? should be the questions of fitness, and the superintendent of the asylum should be untrammelled in his selection and dismissal of these specialists. The same objections to having business interferences with the superintendent, apply with equal force to his contact with coadjutors. The resident staff for a 500 population asylum should consist of medical superintendent, three assistant physicians, one pathologist, one female physician as gynæcologist, one clinical clerk. A consulting staff to visit the patients weekly, or as suggested by the superintendent, to consist of one specialist in skin diseases, one eye and ear physician, one surgeon. Internes could be selected from medical schools among those wishing to fit themselves in psychiatry, and the clinical clerk is in Europe selected on that basis. There need be no fear of increased expense in such an arrangement, for the consulting staff would serve for the honor of the positions, and internes receive no salaries from any hospital fund. The additional cost for board of the extra medical men could be afforded for ten years by one year's curtailment of unnecessary building details. Millions of dollars are expended in unwise architecture, absolutely lost by the necessity for being undone in time. At Danvers, Massachusetts, a palace asylum was undergoing construction, while the insane of the State awaiting its completion starved and were frozen in dungeons of almshouses, and were without any medical attendance. This was before Governor Butler's day. It is evident from such instances that mere desire for display was at the bottom of the erection of a grand asylum, and that no question of benefiting the prospective inmates by medical or any other treatment entered into the intentions of its founders. Can economy be said to have justified this condition of things?

## ORIGINAL TRANSLATIONS.

INFANTILE NODULAR RHEUMATISM : ITS ETIOLOGY AND ITS TREATMENT. Hôpital des Enfants-Malades (service de M. Descroizelles). Translated from *L'Union Médicale* of Dec. 8th, 1883, by H. McS. GAMBLE, M.D., Moorefield, West Virginia.

CHRONIC PROGRESSIVE RHEUMATISM OF CHILDREN. AS FREQUENT IN BOYS AS IN GIRLS. ETIOLOGICAL INFLUENCES. HEREDITY, ETC.

Bed No. 32 of Ward Saint Ferdinand has been occupied for several weeks by a boy eight years and a half old, the subject of a chronic affection as rare in hospital establishments set apart for the use of children as it is relatively frequent in the asylums of old men and the incurable. What, in fact, especially attracts attention, even in a superficial examination of this patient, is the alteration and the functional articular disturbance of the hands, of the wrists and of the elbows, in the upper extremities ; of the toes, of the ankle and of the knee, in the lower extremities. These symmetrical, deforming and poly-articular arthropathies are well defined, very apparent, and, at first sight, most striking.

At this moment, although the disease has for a long time been domiciled in these numerous joints, the skin which covers them possesses a normal color and temperature. This patient has no fever, but he is pale, and his general condition one of suffering. Even within a recent time this was not the case, and M. Descroizelles was the witness of a painful paroxysm, the subacute onset of which he actively combated with salicylate of soda. There is wanting, it is true, information as to the hereditary antecedents of this child ; but we know that as an orphan he has been the victim of persistent privations, and deprived of hygienic care. Besides, upon the bones of the thoracic walls, upon those of the leg and arm, there exist rachitic incurvations ; finally, not long ago, he was attacked with a scrofulous ophthalmia. In fact, in default of the confessions of the patient and of the declarations of his nurses, these commemorative indices reveal clearly that the ground of evolution of these arthropathies is that of a general debility acquired or congenital.

Compelled to keep his bed at the moment of his admission, under the charge of M. Descroizelles, he was suffering with pain and stiffness in the joints. Since then, if the pains and the articular disorders have been ameliorated, the deviations, the deformities, the functional troubles, the motility, persist none the less ; so that to-day these arthropathies still possess their clinical aspects of the first day.

These deviations are as follows : With the exception of the thumb, the segments of which preserve their direction, the fingers have taken the form of a Z. Combined with the deviations of the metacarpus and of the carpus, this attitude gives the appearance of a kind of paw to the two hands, the cubital border of which has an inward inclination, and the palmar surface a slight flexion upon the forearm. The wrists and the elbows are swollen, and their articulations seem to be grating. In the lower limbs are observed deviations as

manifest, although less pronounced in the different intermedial segments of the articulations of the foot, of the ankle, and of the knee; the great toe has lost its form and its direction.

But the physical aspect of the diseased regions is not only modified by these deviations; they are also the seat of deformities of the contiguous osseous extremities. These embossments, hard and resistant to pressure, are not accompanied by any redness of the skin. There are multi-articular knots apparent especially upon the hand and foot, that is to say upon the small articulations, bilateral moreover, and clearly symmetrical upon each homologous segment of the upper or lower extremities.

There exists are traction of the peri-articular fibrous tissues and of the aponeuroses, lesions which, with the osseous deformities, contribute to produce the deviations and the disorders of motility. Whence those grating sounds which accompany movements when provoked; whence the functional disorders, the difficulty in walking, for example, or of prehension? When the little patient wishes to change his position, he lifts with difficulty the lower members. There is a great stiffness in the knees, the hips and the ankles. Being unable either to flex or extend these articulations, according to the expression of Trousseau, he walks like a duck. If he attempts to carry his hand towards his mouth, he experiences the same difficulty in moving the elbow or the wrist. Finally, another cause of functional impoetnce, and an evidence of the relatively ancient origin of the disease, the muscles have lost their volume and their contractility.

To resume, the following is the actual clinical description of this disease: Chronic, multi-articular, nodular and symmetrical arthritis, with progressive evolutions and subacute paroxysmal exacerbations existing in a boy in the second period of infancy, with all the attributes of constitutional debility acquired or congenital. These symptomatic conditions, the age excepted, are indeed those of *chronic, progressive articular rheumatism*, of adults or of old men; that is to say of the *nodosities of the joints* of Haygarth, of the *rheumatoid arthritis* of Garrod, better known, better designated, and above all carefully studied, by the French clinicians under the name of *nodose rheumatism*.

If, since Sydenham, Musgrave, Landré-Beauvais and Haygarth, the medical literature of this affection, in individuals advanced in age, has been enriched by the works of Fuller, of Garrod, of Trastour, of Lasègue, and above all of M. Charcot, to mention only a few names, it is, per-contra, very poor in clinical documents upon nodular infantile rheumatism. So, in spite of patient bibliographic researches, M. Moncorvo (de Rio-de-Janeiro) and M. Maurice (de Bordeaux), the learned translator of the monograph of this esteemed Brazilian physician, have been able to collect only nine cases in the periodical publications anterior to 1877. Moreover, the authors of classical works upon the diseases of children, Henri Roger, Barrier, Rillet and Barthez d'Espine and Picot; West, Fleetwood Churchill, Galigo, Vogel, Steiner, Pepper and Ellis, do not dwell upon it. M. Descroizelles, one of the first, has just opened a special chapter upon it in his very recent, very complete and very practical work upon infantile pathology and clinique.

In 1877, M. Dally and M. Blache each reported a case to the Therapeutical

Society, so that by adding them to the preceding cases and to that of the patient in Ward Saint Ferdinand, we obtain a total of eleven cases more or less reported in detail. It is then wrongfully that—before the oral testimony of M. Bouchat, who, according to M. Moncorvo, had, during his long career, observed half a dozen cases, before, also, the declaration of M. Cornil in his annotations to Niemeyer's book—is assigned to childhood an absolute immunity in regard to chronic rheumatism. However exceptional this latter may be in regard to the frequency of nodular arthritis at an advanced time of life, nothing in the general history of rheumatism would authorize casting a doubt upon it in the little patient of Ward Saint Ferdinand in the presence of the symptoms above mentioned.

It is upon the arguments borrowed from etiology, from pathogeny and from symptomatology that are based definitively the grounds of this diagnosis.

Will any one offer as an objection, from an *etiological point of view*, the tender age of the patient? Be it so. What is observed in comparing the eleven cases mentioned above, in patients less than sixteen years of age? Three times the affection has made its appearance at the age of two years (Moncorvo, Smith, Blache), twice at sixteen (Charcot, Vulpian), twice at fifteen (Durand-Fardel), twice at ten (Martel, Charcot). Remains, then, the patient actually under treatment in Ward Saint Ferdinand, and that of which M. Laborde communicated the history to the Society of Biology. The latter is eight years old, and the former also; but his disease dated from four years of age.

These two last cases are not without analogy, since the polyarthritis deformans of the patient of Ward Saint Ferdinand is anterior by long months to his admission during the service of M. Descroizelles. In this whole series the morbid manifestations were then observed seven times between the second and the tenth year, and four times only at the age of fifteen or sixteen years.

In regard to *sex*, Cruveilhier has designated the nodular rheumatism of adults under the name of the *gout of women*. As far as concerns childhood, this law deserves revision, in spite of the statistics of nine patients, of whom M. Moncorvo speaks, and of whom six were girls. To these figures may be opposed others, by adding the present case to those which have been reported by different authors, we attain, then, the very different proportion of six cases in boys in a series of twelve observations of infantile nodular rheumatism. It is, then, wrong to attempt to draw any diagnostic argument from considerations of sex.

Sex is an etiological element of mediocre value; is it so in regard to the other pathogenic factors? Here, in the absence of information relating to the past, and standing upon the ground of facts, it is necessary to place heredity out of consideration, whilst taking account of its ever-probable influence. Here less than elsewhere, the patient being a child, one will not invoke to a certainty the chloro-anæmic state in order to occasionally rehabilitate the *arthritis chlorosa* of Musgrave. On the other hand, the trophic disorders of which rachitis is a revealing indication, scrofula, general debility, cold, defective hygiene and alimentation, are a common ground which has been favorable to the development of this arthritis deformans. The nodular rheumatism of this little patient is then really the *gout of poverty* and the *disease of the poor* of Adams.

In his learned memoir upon rheumatism, M. E. Besnier dwells with reason upon the action of these influences to explain the preponderance of cases of nodular rheumatism in adult life among women. Is it not the same for indigent or debilitated children of both sexes? Is it not also the ground upon which, according to the testimony of the preceding statistics, the nodular rheumatism of children is likewise more frequent in boys than in young girls?

Whence the *practical* importance, after the final repair of the articular lesions or of the functional disorders, of a careful differential diagnosis of infantile nodular arthritis from the diathetic and tabetic arthropathics, or from the deformities of the joints in progressive muscular atrophy.

Among the first, the gouty arthropathics are, as an element, easily put out of consideration, the gout not being a disease of infancy. Besides, this is no longer the time when the gouty origin of nodular rheumatism was discussed; justice has been done, and the separation pronounced between these arthropathics of different natures. Here *indolent asthenic gout* has given place legitimately to *arthritis rheumatismo superveniens*. It is not always the same in the discrimination from the scrofulous arthropathics, when only the general condition is considered. Many of these patients bear strumous cicatrices or possess scrofulous antecedents; many also succumb to phthisis or are born of phthisical parents. Nevertheless, hesitation would still be unallowable in presence of the seat and of the physical characters of these symmetrical arthrites located upon the entirety of the small articulations, and only upon a few of the large joints. And, on the other hand, has not strumous arthritis, almost constantly mono-articular, always more or less tendency to suppuration?

Is it useful to distinguish them from *tabetic arthropathics* or *from the deformities of the joints from muscular atrophy*? No, certainly not. The first are so rare at this time of life, according to the remark of M. Descroizelles, that we ought not to take ataxia into consideration in a question of infantile pathology. As to the second, their physiognomy and their seat are quite different. The muscular atrophy of sclerosis of the anterior horns differs in its generalization from the peri-articular muscular dystrophies belonging to old nodular rheumatismal arthritis. Sometimes even, with some degree of reason, we have to distinguish them from the *post-traumatic arthropathics* consecutive to wounds of the nerves. Here such is not the case; to enounce the question is to resolve it.

If the patient was further advanced in age, it would be necessary, in order to complete this discussion, to establish the *diagnosis of the form of the progressive articular rheumatism*; that is to say, to differentiate nodular rheumatism from partial chronic rheumatism, or from chronic rheumatism of the phalanges. Of what use to dwell upon it? Although united by the bonds of intimate relationship, *senile arthritis* and the *nodi digitorum* of Heberden are the appanage of old men, and more rarely of adults; whilst nodular rheumatism alone is up to the present time common to them with the child.

The diagnosis of infantile nodular rheumatism is not, then, absolutely difficult. It is not the same as to the determination of its prognosis. In the majority of cases, as with the patient of Ward Saint Ferdinand, the arthropathics are multi-articular, and assume the *chronic form at once*. In spite of this so-aggressive



march, the destruction of the cartilages and the eburnation of the osseous extremities are rarely complete; in these patients the functional impotence results from fibrous and not from osseous ankylosis, a fact which must be remembered in order to attenuate the severity of the prognosis. On the other hand, once only, in the patient of M. Martel, has the complication of pericarditis been observed, and in none of the cases published has death been the termination of the disease. From this point of view, every final estimate upon the issue of the disease would then be premature in the absence of more numerous observations.

Whether the affection remains stationary or ends in recovery, the state of general debility, the diathetic conditions of the patient, the hygienic surroundings in which he lives, are pathogenic factors upon which M. Decroizelles advises, laying great stress in the prognosis as well as in the therapeutic measures. Experience proves it, since, under the influence of rest and of a suitable hygiene, the morbid symptoms, of the boy in ward Saint Ferdinand have notably amended. It is then only in observing simultaneously these conditions that we have seen faradic and galvanic electricity, massage, hydrotherapy produce cures, salicylate of soda suppress the acute paroxysms, and alteratives such as iodide provoke the resolution of the local lesions. The morbid index of a premature organic decadence, this nodular infantile rheumatism is then amenable to the most powerful of the general alteratives; hygiene, associated with the therapeutical employment of local modifiers.

C. ELOY.

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## ORIGINAL ABSTRACTS.

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(BY J. G. KIERNAN, M.D., CHICAGO, ILL.)

TURPENTINE IN DIPHTHERIA.—Stoke's lectures on fever claimed such good results from turpentine in typhoid fever that it is scarcely astonishing to find that Dr. Satlow (*Jahrb. für Kinderh.*, b. xx.) has had excellent results from its internal administration in diphtheria. Fresh distilled turpentine was given to adults in tablespoonful doses twice daily, and children under fifteen were given teaspoonful doses, followed by copious draughts of warm milk. When vomiting was produced, 15 minims sulphuric ether were given; small doses were useless.

COSTAL RESECTION FOR EMPYEMA.—Féréol (*Medical Press*) reports the case of a patient completely healed of a pleural fistula by Estlander's operation. A young man of 22, eighteen months ago, was admitted into the Lariboisière Hospital for pleurisy with extensive effusion. Thoracentesis gave temporary relief, but the pleural sac refilled after some time, pushing the heart greatly to the right, but at first the patient refused all operative interference. However, the dyspnoea became so distressing that he yielded, and nearly two quarts of laudable pus was drawn off by the aspirator. The amelioration that followed was but of short duration, and the operation for empyema was tried, but with no better result. As a last resource, resection of the ribs was decided upon, and the consequences were highly satisfactory. From the fourth up to and in-

cluding the eighth rib, were portions removed, and now—six weeks after—the fistula has entirely closed, but the affected side is diminished in circumference by three inches. This is the practice insisted upon by Warren Stone.

TRACHELORRHAPHY DURING PREGNANCY.—The *Weekly Medical Review* reports a case which recently happened in Chicago. A woman was operated on for cervix laceration, a disease, by the way, which has been frightfully prevalent for the past few years. There were four gynecologists present, and the operation was a brilliant success. Unfortunately, however, the woman gave birth, within the twenty-four hours following, to a seven-months' foetus, and in twelve hours more she was a corpse. A singular circumstance connected with the affair, and going to show the perversity of some women, this woman had been operated on by the same surgeon, and for the same disease, on a previous occasion, and, although that operation brought away a three-months' foetus, she made a good recovery. The *Medical Age* says: "The lesson from this would seem to be that while trachelorrhaphy is a safe procedure when the woman is only three months gone, there is danger when she has gone on to seven months."

JABORANDI IN CONGESTIVE CHILLS.—Dr. Thomas Keefe, of Deming, New Mexico, states (*Medical Age*) that he has employed jaborandi with entire success in quite a number of cases of congestive chills. His *modus operandi* is to inject subcutaneously about 29  $\mu$  of the fluid extract of jaborandi, which is to be repeated in 20 minutes later if necessary (which is seldom the case). In about 15 to 20 minutes profuse perspiration sets in, the chill is broken and the patient rapidly recovers.

APPLICATION OF FORCEPS TO THE BREECH.—Dr. Truzzi (*Gazetta Medica Italiana Lombarda*) concludes: 1st. In wedging of the breech in upper or middle part of the pelvic excavation, if rapid extraction be necessary, in lieu of traction on the fold of the groin with the finger or the crochet, the forceps are preferable. Traction in the groin admits of a better adjustment, and exercises less force than the forceps, but these advantages do not make up for the accidents which so frequently result: fracture of the femur, and laceration of the soft parts of Scarpa's triangle. 2d. Ollivier's proposition to apply the forceps on the thighs and not on the foetal pelvis is seductive, but not practical. In the sacro-iliac posterior position, the hold being upon the thighs, the posterior borders of the blades always compress the abdominal walls of the foetus, and as the extremity of the forceps should (Ollivier) extend almost to the knees, compression might injure the parenchyma hepatica. The forceps are liable to slip gradually, and, after traction, lose their hold and produce antero-posterior chafing. 3d. It is much surer and less dangerous to apply the forceps to the sides of the foetal pelvis. The iliac bones are then quite elastic; are protected by soft parts, which form true cushions, and can sustain considerable pressure before appreciable lesions can be produced upon the foetal pelvis. In careful dissections made after these experiments, no fracture of the iliac bones, or lesions of the sacro-iliac or pubic articulations were found. 4th. To obtain a firm grasp, the blades of the forceps must reach the level of the crest of the ilium, and should be brought together so as to make these crests the points of resistance during traction, and to give the hips of the foetus a convexity of form, thus filling in the space and preventing injury to the abdominal viscera. This mode of application of the forceps is absolutely without danger. The Porro forceps, applied to the sides of the pelvis of the foetus, give an excellent hold, especially in anterior presentations. In posterior presentations, if the forceps slip, it is better to rotate the sacrum anteriorly, and then reapply them. It is well in the intervals of traction to keep up a certain degree of compression of the handles, since the iliac bones tend,

by their elasticity, to return to the previous shape, and, pushing aside the blades, cause them to lose their hold.

**IODINE IN AMENORRHŒA.**—Chéron (*Révue de Thérapeutique*) says that amenorrhœa and dysmenorrhœa are not infrequently complicated by lumbo-abdominal neuralgia. Tincture of iodine freely applied every two or three days over the region of the kidneys stimulates the vasomotor innervation centres of the lumbar portion of the cord and sympathetic, and tends to relieve the congestion of the genital apparatus, which retards or suppresses the normal uterine flow. Tincture of iodine alone will suffice when the lumbo-abdominal neuralgia is not internal. If it be internal, Chéron employs the morphinated tincture of iodine: Tincture of iodine, 30 parts: sulphate of morphia, 1 part. Used internally, iodine is one of the surest emmenagogues, more particularly in cases of corpulent persons, in whom the lymphatic type is predominant. Iodine in the following formula may be employed with good effect, whatever the cause of the menstrual trouble: Tincture of iodine,  $1\frac{1}{2}$  parts; tincture of aconite, 2 parts; syrup of tolu, 400 parts. S. Dose, one, two or three teaspoonfuls before each meal, or one teaspoonful for three days, and three for as long a time as may be desired. Skene (*American Medical Digest*) says that his experience confirms the views of Chéron in regard to the use of iodine in amenorrhœa of corpulent, lymphatic women. Presumably it acts by stimulating the mucous membrane to higher functional activity. Women of this temperament are most liable to amenorrhœa, hence the value of the remedy.

**LIGHTNING AS A CAUSE OF CATARACT.**—Dr. C. S. Turnbull (*Medical and Surgical Reporter*) says: Leber reports the case of a sea captain of thirty-one, who had been struck by lightning, burning the skin of the left side of his body down to the thigh, and producing total hemiparesis of that side. After these affections had been cured, cataract developed in both eyes in the course of a few months, in the left more than in the right, while there was also partial atrophy of the optic nerve, mydriasis, paralysis of accommodation of that eye. The result of the operation was comparatively good. Five similar cases of cataract were found in searching through the bibliography, eight cases of amaurosis in pre-ophthalmoscopic times, and periodic amaurosis or amblyopia respectively in four cases, among them the interesting one of Reich, of rupture of the choroid. Generally both eyes are affected, rarely (Sæmisch) only one. The electric discharge is the cause of all these affections, no matter whether lightning strikes the body itself or only passes close to it. The direct physical, chemical, catalytic action of the electric discharge upon the lens is the cause of the cataract.

**ENLARGED FŒTAL SPLEEN CAUSES DYSTOCIA.**—Dr. Webber (*Medical Press and Circular*) has had under observation the following case: A twenty-year-old well-formed primipara was attended in labor by a midwife. Labor had continued for several hours, when Dr. Webber was called, owing to the cessation of all pains after the delivery of the head. The child was dead, but he corrected the position with facility, bringing the shoulders down, and hooked down the arms with his fingers. In this position traction had been made for two hours without any advance, when the head became detached. The woman was placed under chloroform, podalic version performed, but without effecting delivery. The child's abdomen, the distension of which was the obstacle to delivery, was opened by a guarded scalpel. After the opening was made, an enormous and hard tumor was detected, which required to be broken up before it could be removed. Delivery was easily accomplished. It was discovered

that the tumor was an enormously enlarged spleen. The woman made a complete, though slow, recovery.

**QUININE OLEATE IN SCALP DISEASE.**—Dr. Stelwagon (*Medical and Surgical Reporter*, March 15, 1884) says that quinine oleate is in color brownish, of plastic consistence, and of a sweet and oily odor. So far, the use of this oleate has been limited to inunction to impress the system at large. For this purpose, it should be mixed with olive oil, lard, or oleic acid. In the past year another use has suggested itself. As is well known, lotions containing quinine have been employed for several years past for the treatment of premature baldness, seborrhœa, etc. Unquestionably the oleate is better adapted for this purpose than any lotion of quinine heretofore employed, and in the few cases in which it has been tried, has seemed to act favorably; further experience in its use for these diseases may corroborate the favorable impression already formed. The ointment which he has employed in the few cases referred to is the following:  $\mathcal{R}$ . Quiniæ oleatis,  $\mathfrak{z}$  ss.; adipis benzoat.; petrolati, aa  $\mathfrak{z}$  ss. Ft. ugt. A small quantity of this ointment is to be rubbed in every evening, or less frequently, as may seem indicated.

**HALLUCINATIONS, ILLUSIONS AND DELUSIONS.**—Dr. R. Bartholow (*Med. Bulletin*, February, 1884) gives the following definitions: "A hallucination is a disordered mental conception. It is something in the mind. The mind conceives that to exist which has no existence. If I, looking at the table on which there is nothing, fancy that a man is sitting on the table, that is a hallucination. If, however, there be a chair on the table, and I fancy that the chair is a man, that is an illusion; that is the perversion of an object which exists. A hallucination is the mental conception of that which has no existence, while an illusion is the perversion of an object which does exist. What is the distinction between hallucination, illusion and delusion? A hallucination may also be a delusion, provided the individual is unable to see that he is the subject of a hallucination. In other words, if the hallucination is real to him, and his reason cannot correct it, or your reasoning cannot convince him, then he is deluded, or that is a delusion. Again, if the perversion of an external object, which we call an illusion, is real to the individual, and he cannot be convinced of the error of his perception, then he is the subject of a delusion." These definitions, which purport to be for medico-legal purposes, are much too prolix, and convey erroneous ideas. All delusions do not originate in hallucinations.

**MORAL INSANITY.**—Dr. C. H. Hughes (*Alienist and Neurologist*, April, 1884) says that moral insanity is insanity of conduct, feeling or impulse, or all combined, without such appreciable intellectual derangement that it would be recognized as insanity without the display of morbid feeling, impulse or conduct. It may, as Esquirol thought, include *délire partiel*, and undoubtedly does in many cases, and still be entitled to be designated moral insanity, because of the predominance and overshadowing and overmastering character of the aberration of the moral faculties over the faculties of the understanding. It expresses itself rather in action than in speech, though it may utter itself in both, but unlike pure intellectual mania, which is often only recognized in the patient's language, it never expresses itself alone in written or spoken words. Before the time of Pinel or Prichard, morbid changes in the appetites, propensities and feelings were recognized by medical nosologists. The morosities or morbi-pathetici of the older nosologists embraced them. Rush, in this country, also a little later, described some of them.

SELECTIONS.

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THREE CASES OF EMPYEMA, SHOWING THE ADVANTAGE OF INCISION AND DRAINAGE. By V. M. REICHARD, M.D., Fair Play, Maryland.

The accompanying cases occurred in the practice of my friend and former preceptor, J. McPherson Scott, M.D., of Hagerstown, Maryland, by whose kind permission I am allowed to report them. The following abstracts are taken from his case-book :

“ Case I.—L. E., female, white, æt. 6 years, came under observation in May, 1880, suffering with pleurisy with effusion. Had been under the care of another physician, hence knew nothing of the earlier history. Put on quinine, iron, and cod-liver oil, with nourishing diet. In about a week began to have hectic fever, with rigors and sweats. Suspecting an empyema, passed the needle of a hypodermic syringe and drew away pus. Decided bulging of intercostal spaces, but no pointing. Next day passed a good-sized trocar between tenth and eleventh ribs posteriorly, and drew away about a pint of pus, somewhat to the relief of the child. Inserted a drainage-tube, but it became clogged, and had to take it out. The opening closed. In about a week was as bad as ever. After local anæsthesia, made an incision down into the pleural sac and let out about three pints of pus. The opening was kept patulous with a tent. The discharge continued in diminishing quantity for about two months, when it ceased entirely, and the opening was allowed to close. The child began to improve after the free incision, and now is stout and hearty.

“ Case II.—B. S., male, colored, æt. 20. In June, 1881, seized with pleurisy with effusion. In about a week began to have rigors and sweats. Passed hypodermic needle and drew away pus. Next day aspirated, and nearly a gallon of offensive pus withdrawn. In about ten days the chest had refilled. Aspirated again, but, owing to defective working of the apparatus, did not succeed well ; only about a quart withdrawn. Rigors and sweats continued. In a short time the effusion was so great as seriously to impede respiration. The pleural sac was now freely laid open by incision between tenth and eleventh ribs. A large amount of pus came away. A discharge kept up constantly for several months, though in slightly diminishing quantity. The case then passed from under observation for about six months. When seen again, the opening had closed ; the boy was in the last stage of consumption, and died in a few days.

“ Case III.—J. W., male, white, æt. 35. In 1872 was called to see him. Was suffering with an empyema. Had had a pleurisy, and an empyema necessitatis formed!! A surgeon had made an opening on lower and posterior aspect of thorax, but failed to get any pus ; said it would come all right. Found him with greatly impeded respiration and suffering very much. He declined any further operative interference. Having no aspirator at hand, took a piece of rubber tubing and fitted it to a barrel syringe. Passed the tubing down into the pus cavity, and in this way drew away several pints of pus, affording great and instant relief. He was soon about again. Urged an operation, which he

declined, saying he would 'stick to the first apparatus.' A discharge, never very profuse, was constantly kept up. When there was trouble in breathing, we resorted to the syringe and tubing. In 1880 he had a hæmorrhage into the pus cavity. Was relieved by passing catheter and washing it out. The washing would relieve the discharge, but not cure it. Tubercles now began to develop in the lungs. In the spring of 1881 had another hæmorrhage into the sac. In December, 1881, died of phthisis pulmonalis."

These cases present some points for study. They show that the best chance for recovery is after free incision. Whether the case be one of suppurative pleurisy or one in which a serous effusion has become purulent, the indication is the same—free incision. The pleural sac is simply a pus cavity, and must be treated as such. In Case I. improvement began as soon as free drainage was established. The child is now robust, with very little retraction of the chest-wall. In Case II. aspiration was given a fair chance, but failed entirely. It is a fact observed by all who have had much experience with negroes that thoracic diseases are badly borne by them. Under the continued drain, tubercles developed, and he died with acute consumption, although the empyema was almost cured.

Case III. is another against aspiration. Though the pleural sac was often emptied and washed out, drainage was never fairly established, and at last the system succumbed to the purulent secretion—only, however, after the lapse of nine years. Had an incision been made through the chest wall, and this pus cavity been treated as one in any other part of the body, the result might have been different.

It is of the first importance that the incision be made into the lowest part of the sac. In some subjects it is not an easy matter to find the lowest ribs. In such cases a good plan would be to aspirate with the hypodermic syringe. Even if the needle were passed below the diaphragm, no harm would result.—*Medical Times*.

#### PLASTER OF PARIS SPLINTS IN THE IMMEDIATE TREATMENT OF FRACTURES OF THE LEG.

Dr. John Croft, in the *Maryland Medical Journal*, thus concludes an able article on this subject:

"I still hold that for the immediate treatment of fracture the splints are superior to the plaster-of-Paris bandages, and for the reasons stated in my original paper, that the bandages form a thick case which it is comparatively difficult to remove. It is most desirable in the cases under consideration to put on an apparatus which, in case of accident, such as rapid, unusual swelling, pain, or misadventure in application or manipulation, can be easily taken off with the least possible disturbance of the broken limb. To remove the complete case made by plaster-of-Paris bandages, it must be cut open, and then the limb extracted from it; another case must be built up. These steps cause the injured limb much disturbance and some pain. When the splints have to be removed for some accidental cause, the process is a very easy one. The muslin bandage is easily cut up by scissors; the splints can be removed or turned aside,

one at a time, so that the limb is not left without support. In the majority of the few instances in which this change has to be made, the same splints may be reapplied with fresh muslin bandages.

The apparatus consists of—firstly, inside and outside splints made of common house-flannel and plaster of Paris ; and secondly, of muslin bandages. The splints for fractures below the knee are shaped somewhat like the old short outside splint ; the footpiece is, however, wider ; the splint for the inside of the leg is similar in length and width to that for the outside. The splints should be long enough to extend from above the knee to the middle of the metatarsus, and together they should be in width about one inch less than the circumference of the limb at the corresponding part. A rough guide to the shape of the splint may be found in the injured person's stocking when it is laid flat on a table. Each splint is constructed of two layers of the flannel ; the outer layer carries the gypsum ; the inner layer forms a dry, warm elastic lining, and protects the skin. These splints are applied by means of the muslin bandages. The bandage is put on like any other, from the toes to the knee ; one thickness is enough. Two bandages of five or six yards in length are more convenient than one of twelve yards.

*To Make the Splints.*—1. A piece of house-flannel or an old shrunk blanket, or any suitable substitute, is selected. The pieces may be shaped by measurement, taking the circumference of the limb above and below the knee, at the biggest part of the calf just above the ankle-joint, from the front of the ankle-joint round the heel to the front again, and at the middle of the metatarsus. The flannel of each splint should be in width half an inch less than half the circumference at any of these points. The width of the two splints should be one inch less than the circumference of the limb at any corresponding part ; it should be long enough to extend from above the knee to the middle of the metatarsus. Four pieces are required—two for each splint. 2. Two bandages of common muslin are prepared, each five to six yards long, and two inches and a half in width. 3. A handful or two of dry plaster is mixed with water to the consistency of thin cream. 4. The inside pieces of flannel may be laid on the table or bed, the outer surface being upwards. 5. The outside pieces are to be soaked in the plaster separately, and laid out on their respective inside pieces.

*Application.*—While traction is kept up, and the ends of the broken bones are maintained in apposition, the splints are to be applied and smoothed ; then the bandage is to be put on. Traction is to be maintained during the hardening of the plaster. The latter takes place in about three minutes. Next, the limb should be laid on a large soft pillow, the toes directed upward, and the knee a little bent. In the application of the bandage great caution should be observed that it is not drawn tightly anywhere, and that no one turn of the bandage is tighter than another. The support is to be equal everywhere. The two splints should not meet by about half an inch, either down the front or back. The intervals are spanned by the dry porous muslin ; at the sides the bandage is fixed to the splints by the plaster which oozes into it from the outer layer of flannel. If it becomes necessary next day, or later, to ease the splints or to inspect the

limb at any spot, the bandage can be slit up with scissors along the middle line in front. One or both of the splints can then be eased from the limb, and readjusted by the addition of another bandage. It is undesirable to wholly remove the splints. They are hinged together at the back by the muslin bandage which spans the interval there. The trimming of the apparatus may be done as soon as the plaster shall have hardened. Should the surgeon be short-handed with regard to assistance, he may apply the outside splint first, and lightly bandage that on; and when that splint has nearly hardened he may put on the inside one. As the swelling subsides, and the splints become more or less loose, an additional bandage should be put on. At the end of ten days, if the patient be convalescing, the outside bandage may be gummed or a fresh gummed bandage rolled on. That apparatus will last until splints are no longer needed. At the end of a fortnight or three weeks, as the case may be, the patient may leave the hospital for his own home.

This mode of treatment is admirably adapted to oblique fractures, accompanied by displacement of the tibia, to cases of Pott's fracture, and to comminuted fractures.

APHORISMS CONCERNING LIGATION FOR ARTERIAL HÆMORRHAGE. By JOHN B. ROBERTS, M.D., Philadelphia, Pa.

I.—In primary hæmorrhage do not ligate arteries not actually bleeding, but have the patient carefully watched. Reasons for this rule: 1. It is possible that bleeding has permanently ceased. 2. It is difficult to be sure from which arteries the bleeding came. 3. All manipulations in wounds are to be avoided unless demanded. Exceptions to this rule: 1. When a large vessel is plainly seen pulsating in the wound. 2. When the occurrence of even slight secondary hæmorrhage would be very disastrous, as in very anæmic patients. 3. When the patient must necessarily be away from surgical scrutiny.

II.—In both primary and secondary hæmorrhage the ligature should be applied, when practicable, in the wound at the point where the artery bleeds, and not above, in the continuity of the vessel. Reasons for this rule: 1. It is frequently impossible to know which artery is injured until the wound is opened. 2. Secondary hæmorrhage may occur even after such ligation in continuity from establishment of the collateral circulation. This secondary bleeding may come even from the proximal end of the cut vessel, if a branch of considerable size is given off between the wound and the point of ligation. 3. Ligation in continuity makes a second wound and adds the possible complications of this wound to the patient's original dangers. 4. Ligation in continuity remains as a reserve step, still possible, if ligation in the wound fails. Exceptions to this rule: None.

III.—If the artery is completely severed, both ends should be ligated; if it is partly divided or punctured, a ligature should be applied on each side of such wound. Reasons for this rule: The collateral circulation will probably cause secondary hæmorrhage from the distal portion of the vessel, unless double ligation is adopted. Exception to this rule: When the distal end of the artery cannot be found, pressure must be made in its neighborhood.



IV.—If a large artery is wounded near its origin, tie it below the wound, and tie the trunk from which it arises both above and below the point of origin of the branch. If a trunk is wounded near the origin of a large branch, tie the trunk with two ligatures in the ordinary manner, and apply a third ligature to the branch. Reason for this rule: The force of a large current of blood near the internal clot may lead to its displacement and cause secondary bleeding when the silk ligature causes ulceration of the external coat, or the catgut or flat ligature has been absorbed. Exception to this rule: None.

V.—When ligation of the artery in the wound is impracticable, as happens in deep wounds of the pelvis, ligation in continuity may be permitted.—*Polyclinic*.

GALLIC ACID IN HÆMORRHAGE FROM THE URINARY ORGANS. By LIONEL S. BEALE, M.B., F.R.S., Professor of Principles and Practice of Medicine, King's College; Physician to the Hospital.

OF the styptics in ordinary use gallic acid, according to my experience, is one of the most potent in relieving hæmorrhage from the urinary organs. The reputation of this remedy would, I think, soon be greater than it is if those who try it would give it in sufficiently large doses, and persevere in its use for several days before replacing it by other astringents. As gallic acid probably acts according to the strength of its solution which bathes the bleeding tissue, it is necessary to insure the introduction of a certain quantity into the blood by the frequent administration of successive doses. We must remember that gallic acid soon passes away from the blood, being carried off in the urine. It is, therefore, only by administering frequent doses that we can hope to compensate for this continual draining away of the remedy, and we must give it in quantity and often enough to more than compensate for what is removed with excrementitious matters.

In chronic bleeding from the surface of the mucous membrane of the pelvis of kidney, ureters, bladder and urethra, and from villous growths, as well as in the very obstinate hæmorrhage from large fungous tumors of the kidney and bladder, I have found gallic acid most valuable in a large number of cases, and for some years past I have been led to depend upon it more and more. In that spongy condition of the prostate, when the veins are large and the capillaries of the surface considerably dilated and forming here and there little pouches like aneurismal dilatations, hæmorrhage is often not only very obstinate, but from time to time in such excessive quantity as to blanch and weaken the patient. The remedy should be given in frequent doses, day and night, until the bleeding is very decidedly reduced in degree, when it may be ordered once in six hours, or less frequently, being again increased in frequency if the patient ceases to improve or the hæmorrhage again increases in severity.

Gallic acid seldom disagrees in any way. Some patients complain of its taste, but it is generally well borne by the stomach. It does not cause constipation, and even when the crystals are swallowed in a state of suspension in water or mucilage, no inconvenience results, and the stomach is not disturbed by their

presence. The glycerine of gallic acid is, however, the most pleasant form in which to prescribe the remedy. This contains one part of gallic acid in four. Forty minims will contain ten grains, and may be given in distilled water, peppermint, orange, or other water. But it is most essential that the patient should persist in taking the doses regularly for several days. Gallic acid is absorbed by the blood, and passes away unchanged in the urine; and it is probable that it acts directly on the parts from which the bleeding is taking place, and therefore a certain strength of solution is necessary to get the good effects, and this can only be obtained by its persistent introduction into the stomach, and so into the blood, at short intervals of time. I have given gallic acid in ten-grain doses every three hours without intermission for three weeks, no objection having been made on the patient's part. Whether much larger doses would be absorbed I doubt, but I am not aware to what extent the remedy may be pushed, nor do I know in what respect very large doses would be deleterious. On these points I should be glad to learn the experience of other practitioners who have largely employed the remedy. I have generally found that the desired effect has resulted after ten-grain doses had been kept up for three or four days, and in cases where the bleeding did not actually cease it was certainly well under control. In several of those painful cases of hæmorrhage from fungous growth, the bleeding was much lessened, and the fatal result postponed; in some of my cases I should say that death was due rather to exhaustion and weakening of the general health than to the hæmorrhage. I therefore commend this remedy in the cases of hæmorrhage to which I have referred, and I prescribe it with confidence, so that its use may be steadily continued until its beneficial action is clearly established.—*Lancet*.

#### CONDYLOMA OF THE RECTUM.—SODOMY.

DR. W. M. POLK, in his recent clinic, presented the following case: The next patient, gentlemen, whom I shall bring before you is one with whom I shall detain you only a moment. She has ulcerations on various portions of the body, and on making an examination we find specific ulceration about the genitals. But this is not all; we find a peculiar condition of the rectum. There is complete destruction of the retentive power of the sphincter, and the anus presents a peculiar color, which is partly suggestive of hæmorrhoids and partly suggestive of syphilitic condyloma. We find, as is to be expected, that she is troubled with a constant discharge from the rectum; this is sometimes purulent, sometimes fæcal, sometimes bloody. In addition to this there has been entire cessation of menstruation during the last six months. But the point of greatest interest is that connected with the rectum. In trying to find out what is the precise cause of such trouble, we find that patients tell all kinds of stories. They attribute it to this thing, that thing, and the other thing, and this patient finally winds up by saying she had posterior rectotomy performed, and that since that time she had been afflicted with this constant flow from the rectum.

I wish you to notice these hæmorrhoids and condyloma, and the great irregularity of surface around the anus. I wish you to notice also that the operation of the posterior rectotomy was never performed; because, by putting your finger

upon the posterior margin of the rectum, along the coccyx, you will see that the tissue has never been touched by the knife. You will notice that there is no perineal body, and that there is no sphincter, although the margin of the sphincter is intact all around. Now the ulcers which you see there in the vagina are easily understood, but how about the condition of that anus? We pass our finger deeply into it and find a certain amount of ulceration of the tissues just inside the internal sphincter, but we can go more deeply, and we do not find any special evidence of constriction. All that we do find, then, is ulceration of mucous membrane, ulceration at the anus, and the formation of these tumors. It is not a very difficult matter for those of us who come in contact with this class of people, as we are obliged to do in these public institutions, to diagnose the presence of specific disease, and I wish for humanity's sake we could stop at that. It is evidently a poor devil who has given herself up to sodomy. The condition of that rectum is such as you always find present in such people, the improper use to which this poor creature has subjected herself having evidently brought all the train of symptoms which you see present here. That syphilitic infection of the anus has been direct; it has not come, as it sometimes does come, from a chancre situated at the fourchette. Examine the fourchette as carefully as you may, and you cannot find the characteristic cicatrix of the primary chancre. Coming to the rectum, however, you find all the evidences of direct infection, with destruction of the retentive power of the anus, as a consequence of the stretching to which it has been subjected during the act of unnatural coition. There is no object, gentlemen, in showing you cases of this kind, save to enable you to avoid being deceived by these people. The only redeeming trait in that woman's character to-day is, that she is ashamed to acknowledge how she came to have the condition in question. But confession is not necessary. With regard to treating such cases, well, you will have to manage with them the best you can, and as they are not fit subjects for treatment in one's private practice, you had better send them to a public institution.

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DEATH FROM ETHER.—A death occurred recently at the Gloucester Infirmary, of which the following were the particulars furnished at the inquest. The deceased was a laborer, aged 50, and, when admitted to the infirmary, he was suffering from a cancerous growth in the gums and throat. An operation had to be performed, and it was decided to remove beforehand some of his teeth, which were sources of irritation. He was accordingly placed under the influence of ether, and one tooth had been removed when it was noticed that his breathing was bad, and pulse failing. Artificial respiration was attempted, but proved of no avail, for the patient died in about a quarter of an hour from the first exhibition of the ether. The patient had been weak from the exhausting nature of his malady, but there was no sign of disease in the heart or lungs to contraindicate the use of ether. He had been an habitual smoker, and as a soldier had served in the Crimea and in India. The saliva which he was continually swallowing was of a poisonous nature. When he was found to be in a dangerous condition everything appears to have been done to restore animation, but the efforts unfortunately proved fruitless.

ORIGINAL CORRESPONDENCE.

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*To the Editor of Gaillard's Medical Journal :*

15 RUE CAUMARTIN, PARIS, May, 1884.

DEAR DOCTOR: The medical world of Paris is much disturbed at present in regard to the subject of the "illegal practice of medicine." By this term is meant the exercise of the prerogatives of the doctorate without the possession of a diploma from a French faculty, or an authorization from the Minister of Public Instruction, either of which is regarded as a qualification by the laws of France. The physicians of this country esteem all foreign schools of doubtful repute, and they are generally loath to receive medical men of other nationalities as their equals and brethren. So much pressure has consequently been brought to bear upon the Ministry, that it is now absolutely impossible for a stranger to obtain an authorization, and he is forced to secure a diploma in order to acquire the right to practice "within the limits of the Republic." Neither recognized attainment nor acknowledged standing avails aught in this regard, and no amount of influence at home or abroad counts for anything in behalf of the foreigner who seeks to gain admission into the ranks of the profession here. The door is absolutely closed and barred against every applicant who hopes to have the diplomas which he has obtained in the schools of his own country recognized and respected in France. The only possible avenue to the field of practice is the ordeal of the regular examinations of some one of the faculties of this country. Indeed, a law is now being matured the provisions of which prohibit those who already hold authorizations from styling themselves "doctors," and to compel them, after the expiration of six years, to present themselves for examination and to obtain "diplomas" or abandon the practice of medicine immediately and definitively.

I have thus gone into this matter, because Americans are constantly coming here who are entirely ignorant of the existence of restrictions to the pursuit of their vocation, or who suppose that all such impediments can be easily overcome. I have repeatedly seen gentlemen of the highest distinction, and of the most influential connections, fail utterly in the attempt to obtain the authorization to practice medicine in France, and, to my certain knowledge, a favorable response has not been given to the application of an American within the last six years. Should any one suppose that this statement, with the lesson of discouragement to be learned from it, originates in any selfish view of the situation, I would respectfully refer him to the Minister of the United States, or to any one whose position here has made him *au courant* with the facts of the case as they are at present, and have been for some time past. Until very recently it had been supposed that the "illegal practice of medicine"

necessitated the actual residence of the offending party in France, and his habitual attendance upon the sick, as a matter of business.

It has, however, come in my way to ascertain that a more extreme interpretation is now being given to the law which defines and punishes this offence. Such a construction, in fact, as interests every physician who is likely to visit this country. The authorities hold at present, that the writing of a single prescription by an unauthorized doctor, whether he be a resident or a non-resident, is a violation of the law, and renders the offending party liable to its penalties.

It certainly is the duty and the prerogative of a community and of the profession to protect themselves against incompetency and imposition in this regard, but, in my judgment, thus to establish it as a principle, that all evidence of the qualification of an applicant shall be rejected, save that furnished by the test of a technical examination, conducted by a hostile faculty in an alien tongue, is to commit a great injustice, and to warrant the belief that some other than a disinterested motive prompts to the present violent crusade against the "illegal practitioners domiciled in France."

It is a significant fact, likewise, that this opposition to foreigners has not among its promoters leading medical men—those who have made their reputation and who are above the scramble for patients which is going on around them—but that its especial champions are a class of practitioners who are entirely "unknown to fame," and whose action is influenced by a desire to hold on to the profitable "business" which comes to them through the instrumentality of their friends, the couriers, landlords and concierges of Paris. Not an observation on this subject has been uttered by such men as Labbé, Ricord, Charcot, De Mussy, Peter, Gayon, Simon, or, in truth, any one of the great physicians and surgeons of the country; while from the rapacious crowd of professional chiffoniers and souteneurs a cry for suppression and expulsion is heard incessantly, and with ever-increasing virulence.

As you doubtless know, a large majority of the hotels and *maisons meublées* on "this side of the water" have connected with them certain medical jobbers, who call themselves "médecins titulaires." These doctors are usually chosen from those who, in the desperation of their impecuniosity, can be forced to disgorge a large percentage of their fees, and undertake any dirty work which may be required of them, without compunction or complaint. Of course, they practice exclusively in the interests of their employees, without regard to the cure or convenience or the comfort of their patients, and it makes but little difference who the suffering guest may desire as his physician, the doctor of the hotel usually secures the case. The physician asked for can never be found, and the one introduced is palmed off as some "great luminary in the world of medicine," whose coming is to be regarded as a special providence and the guarantee of a speedy cure. The "médecin titulaire" being once installed, "mine host," whose pliant tool he is, immediately

becomes master of the situation, and the luckless sufferer is either hurried off to a *maison de santé* for fear of contagion, or is consigned to his bed until nature triumphs and returning health clears the sick-chamber of its flock of cormorants, or a "first-class funeral" fills to repletion the pockets of his attendants with the gold which rightfully belongs to his heirs at home.

I once knew of a child who was suffering with bronchitis, accompanied by an insignificant rash, driven from a hotel in a drenching rain, against the protests of its regular medical attendant and the appeals of its frantic mother, to satisfy a craving and grasping landlord, who feared that the case might be scarlet fever, and would possibly injure his house. In this instance the doctor was introduced clandestinely during the temporary absence of its mother, and with the full knowledge that the physician of the family was accessible. Fortunately, the little sufferer was not sent to the *maison de santé* with which this wretch was connected, but to a neighboring hotel, where it was tenderly cared for, and soon recovered, without the manifestation of a single symptom of scarlet fever.

In another instance, a young American, who was slightly nervous from overdrinking, was confined to his rooms for several weeks, guarded by an attendant, who prevented him from communicating with his friends—who were actually in Paris at the time, and exceedingly solicitous in regard to him—at an expense of about six hundred dollars for medical attendance. The excuse offered for this incarceration was an alleged attack of *mania à potu*, and yet, not only were his friends kept from a knowledge of his condition, and a consultation with another doctor refused, but he was lavishly supplied with the finest wines and liquors, by the special order of his doctor.

I could easily fill this letter with instances illustrative of the chicanery and dishonesty of the groveling creatures who thus live exclusively upon "the crumbs which fall from the tables" of houses of public entertainment here, in the form of the sick and suffering travelers who are confided to their bungling hands, but I will let the subject drop for the time being, with the remark that a fatal termination is the result which they most desire, for "dead men tell no tales," neither of multiplied items in medical bills, nor of partitions made with hungry harpies who do not hesitate to seek their spoils at the portals of the grave itself.

Professor Chancellor, of Baltimore, in a letter to one of the Maryland papers, written during a recent visit to Europe, after drawing a graphic sketch of these so-called *médecins titulaires* gives the following excellent advice respecting them: "Travelers should make it a rule to take any other physician than the one proposed by a landlord, concierge or courier, unless the one thus recommended be a compatriot, or is endorsed by some disinterested person; and they should insist upon having the doctor of their choice really sent for, accepting no substitute for him, and taking no excuse for any delay or neglect in regard to the matter."

Coming as this advice does from a gentleman of character and intelligence, who has had an opportunity of investigating the subject for himself, it should be treasured up and acted on universally and invariably. It is earnestly to be hoped that every physician who has at heart the best interests of the profession, and the welfare of the public, will make it a point to impress the timely admonition of Dr. Chancellor upon the minds of such friends as may propose at any time to visit Europe. He cannot, by any possible means, render them a greater service or one that they will be more grateful for in the end.

Residing abroad, and having essentially an American *clientèle*, I naturally feel a deep interest in the overthrow of this pernicious system—this infamous conspiracy against the lives and purses of my compatriots—but it is from far higher and better motives than any degree of selfishness could inspire that I call the attention of the members of the profession to this end, and urge them to prompt and vigorous measures for its suppression.

In exposing these frauds, I do not mean to attack all who hold relations with the landlords and concierges. There may be honest and reputable men among them, and, if such really exist, they deserve all the more honor because of the resistance of the temptations which surround them, and their disregard of the example set by their less scrupulous associates.

Nor do I mean to assail the physicians of France *en masse*. While asserting that as a body they revere the institutions of their own country pre-eminently, and are disposed to view with distrust the claims of their alien competitors, I can bear emphatic testimony to their courtesy, honesty and learning. Among their representative men I have found as high a sense of personal honor, and as profound a regard for the interests of the profession, as the most exacting standard in these regards could suggest. The English journals have recently spoken most contemptuously of medical education in America. They have even had the temerity to assert that no diploma from our schools deserves recognition, which is only another way of saying that the physicians of the United States are not entitled to be received and treated as equals by their foreign brethren.

While the limits of this letter prevent the demonstration of the fact that alike in the field of surgery, of medicine and of authorship, American physicians have achieved results which compare favorably with those of any other nationality, there is one practical circumstance which should teach these gratuitous revilers the lesson, at least, of silence in regard to the supposed defects of our schools, and the consequent deficiencies of their graduates.

I have before me the *American Register* of Paris, and on turning to its "directory" I find conspicuously displayed, under the head of "American Medical Advisors," the name of an Englishman who holds only London degrees, and who was never out of sight of British shores save when he crossed the Channel and came over to France.

Now, as it is impossible even to suppose that a representative of all the

superiority which has been claimed for English graduates, individually and collectively, could be influenced by other than honest motives, this advertisement can only be considered in the light of a tribute to the higher standing and acknowledged excellence of the American medical profession. It proves logically, and by English testimony, that the title of "American Medical Advisor" is more honored and esteemed by the world at large than is any qualification appertaining to the institutions of the country to which this individual really belongs, and in vaunting which so many disagreeable things have been said against us. It shows incontestably also, that when a Briton finds himself out of his isle, among dispassionate judges of the situation, and wishes to be considered somebody, the peer of competitors and confrères, he has the tact to drop his nationality for the occasion, and to hoist the American flag, even if in so doing he has to incur the *souçon* of being a renegade, and to pay for the dodge at the heavy rates demanded by the *Register* for its complicity in the attempted deception.

People will talk, and there are some about town who are so ungenerous as to think, and to assert, that the party referred to is a professional pirate, and deliberately sails under false colors, with the design of bagging American customers; but the icy way with which he treats all who by chance fall into his hands, together with the ethical consideration to which I have called your attention, certainly seems fatal to this hypothesis. Give the devil his due forever!

Nevertheless, though the world has grown familiar with the process by which every foreign-born "tooth-puller," who aspires to the fame and fortune of an Evans or a Kingsley, is transformed into an American dentist, it beholds with amazement the trick whereby a full-blooded "English sawbones" is transmitted into an "American Medical Advisor," and hails it as an advance in jugglery without a precedent or a parallel. So runs the world away, and such is the *comble* of human ingenuity *outré mer*.

The fame of Charcot grows daily. The fecundity of his intellect is a marvel in itself and a wonderment to his most reliant admirers. Though seemingly overwhelmed with the demands of private practice and the duties of public positions, to the surprise and delight of the profession he finds the time to investigate and elucidate the most recondite problems appertaining to all the departments of medicine. Each day of his busy life but adds some greater discovery to the domains of science, and contributes a fresher laurel to the crown of his own imperishable renown. Heedless of the malice of jealous rivals, deaf to the adulation of ardent admirers, and indifferent to the demands of personal necessities and requirements, he devotes himself exclusively to his mission as a physician and a scientist—to the relief of human suffering and to the solution of the great problems in physiology and pathology which he has made his specialty.

His *salle de réception* is one of the veritable curiosities of Paris, filled



as it daily is with crowds of impatient clients, speaking every conceivable language, and struggling to make terms with the consequential *portier* for a speedy admittance to the presence of the "man of destiny" within.

I have known an invalid, who had crossed the ocean for the special object of obtaining Charcot's opinion and advice, sit out three entire series of "hours of reception" without having his turn for a *séance* arrive, and then find himself constrained to get another physician invite "the Professor" to a consultation in due form, at his hotel. Dr. Charcot prides himself upon being essentially a "consulting physician," and the best way to secure an audience with him, and to get the full benefit of his skill, is to pursue the course to which I have just alluded, viz.: for the patient to place himself under the charge of some other physician and to have him request "a consultation at the earliest convenient moment." This will cost rather dearly—for in this country both parties to a consultation receive the same fee—but it will secure a more thorough examination and deliberate opinion at the hand of the great specialist. When seen in this way—apart from the burry and pressure of his office hours—he is one of the most sympathetic of physicians and charming of men. Of a grave but attractive presence, speaking English to perfection, listening attentively to any statement and suggestion of his patients, quick to perceive and appreciate every symptom of the case, and without an atom of pretention or quackery in his nature, he bears himself in the chamber of sickness like a friend, a gentleman and a master, and he never fails to make an impression as profound as it is pleasant and inspiring.

To his skill as a physician, and his triumphs as a savant, the world can testify; but of his loyalty as a friend, and his character as a gentleman, it is my special privilege to speak. Nearly thirty years ago, when he was an unknown and struggling young man, we became acquainted under circumstances which drew us closely together, and ever since—alike in storm and sunshine, under all circumstances, and to the fullest measure of his ability—he has shown to me and to mine the affection and the fidelity of a brother. It is mainly to the potency of his great name that I enjoy the right to practice medicine in France, and to wear the Cross of the Legion of Honor upon my breast. And in the intimate relations of all of these years I have had abundant opportunities of testing the material out of which his real nature is constructed, with the result of finding it to be genuine metal—without a trace of alloy or counterfeit. But I have occupied space enough in your pages for the present, and I must reserve the other matters to which I would invite your attention, for future occasions. *Au revoir*, and believe me,

Very truly and respectfully yours,

EDWARD WARREN (Bey), M.D.

Rooms of Joint Committee of Conference (G. A. R. and ex-Confederates), organized to aid in erecting a Home for Disabled ex-Confederate Soldiers, 55 Liberty street (Room 52).

J. B. GORDON, Chairman.

J. R. O'BIERNE, Vice-Chairman.

WM. HANCOCK CLARK, Secretary.

W. P. STOWE, Assistant Secretary.

NEW YORK, April 29, 1884.

*To the Editor of Gaillard's Medical Journal:*

DEAR SIR: You are perhaps advised of a movement which has been set on foot by ex-Confederate and Union soldiers, with the co-operation of Northern and Southern citizens, without reference to party affiliations, for the erection of "Homes for Disabled ex-Confederate Soldiers." A number of meetings have been held, and the undersigned has been selected as Chairman of the Central Committee in charge of this movement. It is safe to say that no movement made since the war is destined to have so beneficent and lasting effect for good upon the future of this country as this. The primary object, which is to give shelter and comfort in their declining years to the brave men who lost limb and health in battle, and who cannot appeal to the general Government for pensions, is one which, of course, must find sympathy and support in the hearts of every good man and woman; but this object, however laudable, is perhaps the least of the benefits which are to accrue. These homes will become, when their disabled occupants shall have passed away, institutions for the education and training of their children. They will also become monuments of a real peace and real union, as well as monuments to the magnanimity of the victors in the late war.

I do not write you to make any appeal for any contribution whatsoever. It is simply to make known to you that such a movement is on foot, and that funds are being received for this purpose. It is the unalterable determination that this movement, in order to attain its highest purposes, must find its own support in the sympathies of the people, and make its way to success by none of the ordinary methods of solicitations through agents or otherwise. No one is authorized or permitted, so far as the committee can control the matter, to solicit a subscription for this cause.

I am glad to tell you that the contributions are coming in even before the business arrangements are fully completed; that one of the leaders of the Union armies in the late war, whose name I withhold from considerations of delicacy, has already tendered, not only all his influence, but \$500 in money. Other subscriptions have been sent by private Union soldiers, themselves poor and wounded, who donate a portion of their own pensions received from the Government. Northern ladies, who withhold their names, send in their contributions. A large number of

Southern gentlemen, resident in New York and vicinity, have also furnished the Committee various sums, ranging from considerable amounts down to very small sums, for paying the necessary expenses of inaugurating this movement on a scale commensurate with its high and patriotic aims.

This letter, as stated above, is not intended by any means to solicit from you a contribution, but it was thought due to you that the matter be brought to your attention, as the committee could not assemble all our friends in meetings, because not advised fully of the addresses of Southern men now resident or sojourning in New York and vicinity.

In a few days the banking arrangements will be fully perfected, but in the meantime Mr. W. M. Connor, proprietor of the St. James Hotel, in this city, has been appointed treasurer for this fund. Should you feel inclined to contribute, you can send to him such amount as may suit your convenience or wishes (notifying me, as chairman, on enclosed card), with authority to use such portion of the same as may be necessary to pay the incidental current expenses. It is, perhaps, needless for me to say in this connection that those expenses include only the rent for the necessary rooms, the printing, postage, stationery, etc., incident to the extensive correspondence already on hand, and which will accumulate rapidly from day to day. No salaries or commissions, of course, are paid to any of the parties engaged in this great, charitable and patriotic movement, which may be said to be spontaneous and unsolicited.

I am sincerely yours,

J. B. GORDON,

Chairman Central Committee.

NOTE.—This eloquent letter needs no commendation to impress the beneficent objects of it upon the attention of the liberal, the charitable and the just. It is therefore published without further supplement than this brief note.

While history and the victors in the great battles which so recently billowed this country with graves have termed the Confederate appeal to arms "a rebellion," and have, so far as a mere name can effect a verdict, sought to cover this appeal with ignominy, there are increasing evidences coming yearly before the Public which show that, in the judgment of the just, both parties in the late war staked their lives upon causes believed by each to be right, and noble, and true. And while the horrors of battle have given place to the sun of peace, and though the best and the bravest in the "lost cause" have rendered to this Government an allegiance which is past criticism in its fidelity, no one worthy of notice can believe that the defeated respect less the cause for which they offered up their lives, their fortunes and their happiness. More than this—the noble amongst the victors esteem and respect those who bravely lost a cause believed to be just, even as highly and as sincerely as they do those who fought against and overpowered them. This movement in behalf of wounded ex-Confederate soldiers is one of the many contemporary evidences of the truth of this statement; and in support of this movement are now to be found the noblest (of both sexes) among those who gave so liberally in support of the Federal cause.

There are among "the Confederates" a few mean and depraved enough to be ashamed of the cause they once claimed to support, and there are among the "anti-Confederates" some yet fanatical enough to regard as the only noble cause that which they (in the rear) claim to have supported; but such Confederates and such anti-Confederates, if they cannot blush for themselves, at least cause their friends to blush for them.

The noble and the true are the liberal and the just. This appeal is for them. They are asked to give it their earnest and liberal support.—E. S. G.

## BIOGRAPHY.

## PROFESSOR SAMUEL D. GROSS.

Professor Samuel D. Gross, M.D., died in Philadelphia, May 6, 1884. He was born in the suburbs of Easton, Pennsylvania, on July 8, 1805. His early education was acquired at the Wilkesbarre Academy, and at the High School in Lawrenceville, N.J. He began the study of medicine with Dr. J. K. Swift, in Easton, and subsequently entered the office of Prof. George McClellan, of Philadelphia. He was graduated from the Jefferson Medical College of the latter city in 1828, and began the practice of his profession in Philadelphia. His leisure hours were occupied with study, and the translation of standard medical works from the French and German. Two years after his graduation he published the first of the numerous medical treatises which have helped to make his name known to the profession throughout the civilized world. This first volume was entitled "Diseases and Injuries of the Bones and Joints," and in it particular mention is made of the use of adhesive plasters as a means of extension in the treatment of fractures; now a practice general with physicians of this country and Europe.

The same year he returned to Easton, where he practised medicine for three years. In 1833 he was made Demonstrator of Anatomy in the Medical College of Ohio, at Cincinnati, and two years later he was made Professor of Pathological Anatomy. While holding this position Prof. Gross delivered the first systematic course of lectures on morbid anatomy ever given in the United States, and also composed his "Elements of Pathological Anatomy," which was the first work of the kind ever published in the English language. In the fall of 1840 he accepted the Chair of Surgery in the University of Louisville, and labored for ten years in the lecture-room. In 1850 Prof. Gross came to this city, where he had been elected to fill the same chair he vacated in Louisville in the University of New York, as successor of the venerable Dr. Valentine Mott.

He left New York after the first session of the University, and returned to Kentucky. This was done because Dr. Gross desired to return to his late home, and because Prof. Paul F. Eve, who had succeeded Dr. Gross in the University of Louisville, resigned his chair, as soon as he heard of the desire of his predecessor. This noble and generous act deserves to be recorded here. The noble act of a noble man.

Dr. Gross remained until 1856, when he was elected Professor of Surgery in his alma mater, Jefferson Medical College, in Philadelphia.

He remained the Professor of Surgery in Jefferson Medical College for 26 years, and in 1882 he tendered his resignation because of his advanced years and a desire to afford younger men an opportunity. In November of the same year Dr. J. Marion Sims and his son, Dr. Harry Marion

Sims, gave Prof. Gross a reception at the Hotel Brunswick, in this city, at which all the leading physicians of this city and many eminent medical practitioners from all parts of this country and Europe were present, to signalize the great surgeon's retirement from the active practice of his profession.

During his Professorship in Philadelphia, Dr. Gross made his name known throughout the world, not only as a surgeon, but as an author. In 1857 he was elected President of the American Medical Association, and four years later was chosen Chairman of the Teachers' Medical Convention at Washington. He was one of the founders and early Presidents of the Kentucky State Medical Society, and while in Louisville he published an elaborate and exhaustive treatise, called "Report on Kentucky Surgery," in which he first established the fact that the late Dr. Ephraim McDowell, of Danville, Ky., was entitled to the honor of being the father of ovariectomy, which had been previously ascribed to other surgeons. Soon after his return to Philadelphia, in conjunction with Dr. Da Costa, he founded the Philadelphia Pathological Society. In June, 1870, he was chosen President of the Pennsylvania State Medical Society.

In 1872 Prof. Gross made his second visit to Europe, whither he was preceded by his reputation as a surgeon of brilliant success and an author of world-wide reputation. The University of Oxford, which was then celebrating its one-thousandth anniversary, recognized his genius and fame by conferring upon him the honorary degree of D.C.L., he having previously received the degree of LL.D. from the Jefferson Medical College. The University of Cambridge followed the example of its sister institution, and also conferred upon Prof. Gross the degree of LL.D. Honors came upon him thick and fast. He was made a member of the American Philosophical Society; the Imperial Medical Society in Vienna; the Medical Society of Christiania, in Norway; the Royal Medical and Chirurgical Society of London; the Medico-Chirurgical Society of Edinburgh; the Medical Society of London; the British Medical Association, and of almost all the medical societies in this country. He was twice an accredited delegate from this country to the British Medical Association, and was President of the International Medical Congress which met in Philadelphia in 1876.

Prof. Gross was a voluminous author. In addition to the works previously named, he is the author of a "System of Surgery," upon which his posthumous fame will most probably depend. The work first appeared in 1859, and before 1872 had passed through five editions. The last edition, issued in 1872, was thoroughly revised by the author, and brought up to the state of science existing then. It is in two volumes, and is illustrated by more than 1,400 engravings. It was translated into the Dutch language, and published at Nieuwediep in 1863. It is the most exhaustive and elaborate treatise on surgery ever written by one man. Prof. Gross also edited a large work on "American Medical

Biography," and was one of the founders and chief editors of the *North American Medico-Chirurgical Review*, which had a successful career for five years, and was discontinued when the war commenced. He was the author of numerous addresses on medicine, surgery and biography, of a "History of American Medical Literature," and a "History of the Progress of American Surgery During the Last Century." Among his standard medical works, which are in continual use among the medical profession, are: "Diseases, Injuries and Malformations of the Urinary Organs;" "Elements of Pathological Anatomy;" "Wounds of the Intestines;" "Foreign Bodies in the Air Passages;" "Results of Surgical Operations in Malignant Diseases;" "Report on the Causes which Retard the Progress of American Medical Literature," and "Manual of Military Surgery."

Prof. Gross was always an ardent and earnest advocate of professional progress and a higher standard of medical education. He was so systematic and economical of his time that he studied and composed while riding about on his daily routine of professional duties. He was an active teacher of surgery for almost half a century. He was the best compiler known. Though not original in thought or action, he achieved magnificent results.

#### DR. WILLARD PARKER.

Dr. Willard Parker died at his late residence, No. 41 East Twelfth street, at 3 o'clock P.M., April 25th, 1884. About a year and a-half ago the symptoms of the disease which resulted in his death first appeared. The cause was pyelitis. He was ill for some time, but during last summer the symptoms were abated. The intense pain passed away, and for a time Dr. Parker enjoyed a fair degree of health. About six months ago the symptoms returned with renewed intensity, and he sank gradually under the intense drain upon his vitality, until the evening of Sunday, December 9, when his death was hourly expected. The next day he was relieved.

On the evening of April 13, Dr. Parker's illness was intensified by aphasia. Since that time he had been unable to articulate any but the words "yes" and "no," and these replies were unintelligible except to his relatives and attendants. He had been gradually sinking since that time, but his death was apparently painless.

Willard Parker, M.D., LL.D., was born in Lyndeborough, N. H., September 2, 1800. He came of Puritan stock on both his father's and mother's side. His father was a farmer. Willard Parker was an ambitious youth, who assisted his parents on the farm in summer and attended the village school in winter. His ambition was to secure a college education. To provide money for this purpose, he began teaching when 18 years old. He taught for four years, and, having accumulated what seemed a sufficient amount, he entered Harvard University in 1822, and was graduated in 1826.

Dr. Parker entered college with the intention of studying for the ministry. An incident which occurred in his Freshman year led to a change in his choice of a profession. His "chum" had strangulated hernia, and a local physician failed to give relief to the sufferer. Dr. John C. Warren, of Boston, was called in, made his diagnosis, and reduced the hernia so skillfully, that young Parker decided to devote his life to the study and practice of medicine and surgery.

In the spring of 1827 he received an appointment as an *interne* at the Chelsea United States Marine Hospital. He remained there about two years. Afterward he was appointed Professor of Anatomy in the Berkshire County Medical College at Pittsfield, Mass., then one of the leading institutions of its class in the country. In 1832 he was made a Professor of Surgery, and for four years filled both chairs, delivering two lectures daily. In 1836 he accepted the Chair of Surgery in the Cincinnati Medical College, remaining there three years. During his occupancy of this position, he made a trip to Europe to study the methods in the French and English medical colleges. In 1839, after his return from Europe, he settled in this city, having been appointed Lecturer on Surgery in the College of Physicians and Surgeons.

His success was immediate, and he rapidly rose to the position of one of the foremost surgeons and general practitioners of the city and country, his fame extending to the European continent. Dr. Parker was both successful and popular as a lecturer. This was due to his wonderful aptness in illustration, in which he avoided as far as possible technicalities.

Among the public works in which Dr. Parker took an active part was the reorganization of the city hospital system in 1845. This resulted in converting Bellevue Hospital from an almshouse into a charity hospital, under a board of governors. Dr. Parker and the late Dr. James R. Wood were appointed visiting surgeons. Though not, perhaps, so prominently identified with the growth of that institution as was Dr. Wood, he was more or less actively and intimately connected with the steps which led to its growth. He took a deep interest in its success, and contributed much to this end. Dr. Parker was also prominently identified with the reorganization of the health department of this city. In 1865 he succeeded Dr. Valentine Mott as President of the State Inebriate Asylum at Binghamton, entering upon the work as a matter of duty. He saw a possibility of carrying out well-digested views as to the treatment and cure of dipsomania. He believed that alcohol was a poison and never a food, and that drunkenness was a disease, often hereditary in character. He counseled all his patients to abandon the use of spirits at all times, except on the advice of a physician. Dr. Parker resigned his active duties as Professor in 1870, in which year he received the degree of LL.D. from Princeton College. Since that time he had been consulting surgeon to the New York, Bellevue, St. Luke's, Roosevelt, and Mount Sinai Hospitals, and Professor Emeritus of Surgery in the

College of Physicians and Surgeons He was an active or honorary member of many societies, medical and surgical, in this and several other States. With his retirement from teaching came a partial retirement from his labors as a general practitioner. He continued to practice, however, in many families whose physician he had been through a long series of years, and he was frequently called in consultation in surgical and medical cases.

Dr. Parker insisted upon having the full confidence of patients, and in return confided to them his full diagnosis of the case, its causes, possible results and mode of treatment. The necessity of a full co-operation on the part of the patient was impressed upon him, and the case was fully explained, frequently by the use of plates and books from his library, one of the most extensive medical libraries in the country. To this method he ascribed much of his success. His methods of treatment were of the simplest possible character as a rule, and he had no faith in, or fondness for, medication, save where he deemed it absolutely necessary. Homely remedies, such as are sometimes called "old women's remedies," and which called simply for an obedience to the rules of health, a simple diet, an abstinence from medicament, were often his sole prescriptions. Since retiring from teaching in 1870, Dr. Parker had passed the greater portion of his time at his farm in New Canaan, Connecticut. There he indulged his fondness for agriculture, and found health, rest and strength. His first city residence was at the southeast corner of Bleecker street and Broadway. There, during his first year's practice, his income from his professional business amounted to but \$300. During the height of his professional career, however, this sum would not equal his weekly income from the same source.

It was as a surgeon that Dr. Parker achieved his most brilliant successes. He was ambidextrous, using either hand in operating with equal ease and facility. Even during the past year he performed delicate operations without the use of glasses, using either hand, as it came most conveniently. Among his contributions to the art of surgery were cystotomy, for the relief of chronic cystitis; an operation for the cure of abscess of the appendix vermiformis, and the laceration of the perinæum and sphincter ani during parturition, cured by the division of the coccygeal attachment of the sphincter and subsequent closure of the perinæum by sutures. Dr. Parker was not a writer, and even his reports of remarkable cases or delicate operations have been made for him by other members of his profession. Though a close student, he disliked to write, this aversion being in part due to the fact that the pen was not rapid enough to follow his thoughts. A large number of reports of his cases appear in medical and surgical journals.

It was due in great part to Dr. Parker's simple mode of life that he displayed so much vigor in his advanced years. He had an erect carriage, an elastic step, and eyes and features that sparkled with life and animation. The purity of his life was a bright feature, and one that was



frequently commented upon. His home life was of the happiest, and buried among his books, when not in his family, he enjoyed a contented, peaceful life. He was twice married, and leaves a widow, a son (Dr. Willard Parker, Jr.) and two daughters. His second daughter, Mrs. Lindley, who died in 1879, was for ten years a missionary in Africa. Dr. Parker was a member of the University Place Presbyterian Church, of which he was for a long time a trustee.

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## PROCEEDINGS OF SOCIETIES.

[NOTE.—The weekly medical journals very properly publish the proceedings of societies as soon as the societies adjourn. This journal being a monthly cannot, of course, do this; it will publish, therefore, only such carefully obtained proceedings of American and European societies as are most interesting and instructive.—ED.]

AMERICAN MEDICAL ASSOCIATION.—Thirty-fifth Annual Meeting, held in Washington, Tuesday, Wednesday, Thursday and Friday, May 6, 7, 8 and 9, 1884.

*Tuesday, May 6th—First Day.*

THE meeting was called to order at 10.30 A.M. by the Chairman of the Committee of Arrangements, Dr. A. Y. P. Garnett. After a prayer by the Rev. William A. Leonard, the Chairman introduced the President of the Association, Dr. Austin Flint, of New York.

Address of welcome read by Dr. Garnett, after which he announced the list of entertainments.

Communications from eminent medical men of Europe read and ordered on the minutes.

The registration showed five hundred and ninety present. On registering, each delegate had subscribed to the following declaration: "In acknowledgment of having adopted the constitution, by-laws and code of ethics of this body, and of my willingness to abide by them, and use my endeavors to carry into effect the objects of this Association, I hereunto affix my name."

### THE PRESIDENT'S ADDRESS.

Dr. Austin Flint, President, then delivered his address. He first made reference to the origin of the Association and to the objects for which it was founded. The plan of organization, with constitution and by-laws and code of ethics, was adopted in 1847, and therefore it was in the thirty-eighth year of its existence.

Little was to be expected from State Legislatures in those days, and in that respect no marked progress had been made, for the terms regular and irregular were then, as now, not entitled to legal distinction. There seemed to be, therefore, need of unity of council of the members of the medical profession from all parts of the country for its own protection.

The development and growth of the Association were rapid, and it has passed through a healthy adolescence into mature age. It had outlived and profited by the errors of its youth, and before him was the evidence that it was replete with vitality and vigor.

It had been said that the recommendations regarding medical education had been nugatory, but there was less room for reproach in that direction than some

had supposed. It would be absurd to suppose that the recommendations first made were those which should be followed at the present time, for most of them had been surpassed by the medical colleges. That there was room for further advancement no one would deny, but it was not at all certain that it would continue to the satisfaction of those who regarded with disparagement the progress in medical education manifested in this country.

The President then referred to the close relation which should exist between didactic and clinical teaching, the substitution of recitations for didactic lectures, extension of the period of time for medical teaching, and the advantages of a preliminary education. Concerning the latter, it might be fairly questioned whether the time spent in the study of Greek and Latin might not be expended with more profit in the study of physics and chemistry and the French and German languages.

The progress which had been made with regard to the preliminary education of the medical student had been less satisfactory than that made in medical instruction. That more progress had not been made was partly the fault of the medical schools and partly that of private preceptors; more, however, with the latter than with the former.

#### WHAT CAN THE ASSOCIATION DO TO PROMOTE THE STANDARD OF MEDICAL EDUCATION?

First, of the things desirable not to do. It was not desirable to decry medical instruction in this country as unworthy of any commendation, and contemptible when contrasted with the medical education of other countries. Such disparagement was not warranted by facts, and we had no occasion to be ashamed, as the members of our profession in this country are not ignorant or in any respect unworthy. The profession was honorable and honored. In no country was its social status higher. The sweeping charges against the medical schools were unwarranted, unwise and unbecoming. He did not wish, however, to appear as an apologist for abuses which affect, directly or indirectly, the standard of medical education. He suggested the appointment of a standing committee, whose function should be to communicate with State associations and medical colleges, with the view to securing uniform action concerning the requirements for matriculation and graduation, and to report to the Association what had been actually accomplished. Not all the improvement desired could be accomplished, but perhaps the question of preliminary education could be considered first and with decided advantage.

With regard to establishing

#### BOARDS OF MEDICAL EXAMINERS, INDEPENDENT OF THE TEACHING BODY,

the President, without stopping to discuss this point, said that, while there might be some seeming advantages in the plan, it would be impracticable to secure uniformity in the different States of the Union, and it also contravened the principles of self-reliance in matters pertaining to the medical profession. He devoted considerable space to the consideration of the subject of

#### MEDICAL ETHICS,

and answered several objections which had been urged against the Code of the American Medical Association; for example, that it was antiquated, inoperative, etc. Attention was directed especially to the clause regulating consultations, and the views were expressed which have been set forth in a series of comments previously published by Dr. Flint, and with which the profession is already familiar.

The voluntary assumption of a distinctive name, and the announcement to the

public that his medical practice is based upon a distinctive system of medicine opposed to legitimate medicine, constitutes an irregular practitioner, and one with whom consultation cannot be held without violating the Code.

While it might be regarded as hazardous to attempt to tamper with the Code, it was safe and reasonable to have interpretations of the Code offered from time to time, and he therefore submitted the recommendation "That the Association adopt resolutions embodying the grounds, more satisfactory than they are given in the Code as it now stands, for refusing fellowship with irregular practitioners." These could be passed, and others of like purport, from time to time, without necessitating any change in the By-laws or Constitution, and could therefore become at once operative.

Concerning means of enlightening public opinion, the popular diffusion of our Code of Ethics might be beneficial. With regard to emergencies, there was no antagonism between acts of humanity and the Code of Ethics.

The President then referred to the work done in the sections, the friendly feeling fostered by international associations, and suggested that steps be taken with the view to securing the meeting of the International Medical Congress in 1887 in this country. The suggestion was not the outgrowth of his own thoughts alone, but was proposed by Dr. Samuel D. Gross.

In conclusion, he thanked the Association for the honor conferred upon him, the grateful appreciation of which was enhanced by the fact that it came unsought.

Dr. J. M. Toner, of Washington, D.C., moved a vote of thanks to the President for his address, and the request for a copy for publication. Carried.

Dr. Toner also offered a resolution of sympathy for Dr. S. D. Gross, in his severe illness. Adopted. The Association directed that the communication be sent by telegraph.

Dr. Gilson moved that the portion of the President's address relating to Professor Gross be forwarded by telegraph. Carried.

Dr. Richardson, of New Orleans, said that he saw Dr. Gross only a few hours before, and when he asked him if he had any special message to send to the Association, he replied: "Give them my love."

A telegram from Dr. W. O. Baldwin, of Alabama, announced regret at his inability to attend the meeting.

On motion of Dr. L. A. Sayre, of New York, the Association empowered the President to appoint a committee of five to carry into effect measures to secure the Meeting of the International Medical Congress in this country in 1887.

On motion of Dr. Ferguson, of Troy, N. Y., the President's address was referred to a committee of seven, to be reported on as speedily as possible.

Dr. Albert Blumenberg, of Alleghany County, Pa., and Dr. B. F. Shreve, of Iowa, were named for

#### MEMBERS BY INVITATION.

Dr. Keller, of Arkansas, raised the point that none could be made members by invitation except those from regions not otherwise represented. The point was declared to be well taken.

Dr. Keller then moved that all those who had been named as members by invitation be invited to seats in the present meeting of the Association.

Dr. X. C. Scott offered a protest against the admission of Dr. A. G. Sherman, which was referred to the Judicial Council.

The Association then adjourned, to meet at 10 A. M., May 7th.

*Wednesday, May 7th.—Second Day.*

The Association was called to order at 10 A. M. by the President, and prayer was offered by Rev. W. A. Bartlett, D.D.

COMMITTEE TO PREPARE RESOLUTIONS ON THE DEATH OF SAMUEL D. GROSS.

The President referred to the death of Dr. Gross, and appointed the following Committee on Resolutions: Drs. T. G. Richardson, of La.; Lewis A. Sayre, of N. Y.; J. H. Packard, of Pa.; F. H. Hamilton, of N. Y.; Moses Gunn, of Chicago; W. T. Briggs, of Tenn.; and I. Minis Hays, of Pa.

On motion by Dr. Jenks, of Texas, the President was added to the Committee, and on motion by Dr. Richardson, Dr. Flint was made Chairman of the Committee.

The Secretary read the following telegram, received from Dr. Samuel W. Gross, addressed to the Association: "Your resolutions and extract from the President's address were received too late. Accept the warm thanks of the family with great tenderness and consideration."

The communication was accepted and ordered entered upon the minutes.

The Secretary announced the following

COMMITTEE ON NOMINATIONS:

Jerome Cochrane, Ala.; P. O. Hooper, Ark.; G. L. Porter, Conn.; F. W. Hatch, Sr., Cal.; Jesse Hawes, Col.; Hector Galloway, Dak.; William Marshall, Del.; J. W. H. Lovejoy, D. C.; R. B. Burroughs, Fla.; W. F. Holt, Ga.; E. P. Cook, Ill.; Thomas B. Harvey, Ind.; H. C. Huntsman, Ia.; F. F. Dickman, Kan.; W. H. Wathen, Ky.; T. G. Richardson, La.; F. C. Thayer, Me.; J. F. Lynch, Md.; Charles A. Savory, Mass.; H. F. Lester, Mich.; D. Leasure, Minn.; B. A. Duncan, Miss.; N. F. Essig, Mo.; S. D. Mercer, Neb.; Joseph Parrish, N. J.; C. G. O'Hagener, N. C.; J. W. S. Gouley, N. Y.; J. W. Parsons, N. H.; W. M. Beach, O.; J. B. Murdock, Pa.; James H. Eldridge, R. I.; William Huger, S. C.; Duncan Eve, Tenn.; J. H. Pope, Tex.; Alexander Harris, Va.; George Beard, W. Va.; William Fox, Wis.; H. D. Holton, Vt.; N. L. Bates, U. S. N.; J. R. Smith, U. S. A.; Walter Wyman, U. S. Marine Hospital Service.

COMMITTEE ON THE PRESIDENT'S ADDRESS.

N. S. Davis, of Illinois; W. W. Dawson, of Ohio; W. T. Briggs, of Tennessee; T. F. Prewitt, of Missouri; J. L. Cabell, Virginia; H. B. Ransom, and D. W. Stormount.

MEDICAL SERVICE ON SHIPBOARD.

The committee appointed to frame resolutions in favor of securing more competent medical and sanitary service on board trans-oceanic passenger vessels reported, through its Chairman, Dr. A. N. Bell, of New York, that a bill had been prepared and presented to Congress which covered the matter. Dr. Bell stated that the mortality on board emigrant ships entering the port of New York for four years, up to 1883, was 35.12 in a thousand, being considerably greater than for a like period ending in 1873. This death rate was at least three times as great as it ought to be. The causes of death were largely negligence and filth.

Dr. Keyser, of Pennsylvania, said the bill before Congress was excellent, so far as it went, but it did not go far enough; it provided that the ship's surgeon might report to the captain, and the captain to the company—but to whom was the company to report? The bill should require the surgeon to report directly to the United States Government.

Dr. Irwin, an English physician, thought the object of the bill was excellent,

but that it was impracticable as it stood, and would prove ineffectual. He suggested certain points of improvement.

On motion, the report was received, and the committee continued, the suggestion having been made that information in regard to the matter be reduced to writing and submitted to the committee.

Dr. Pratt, of Michigan, moved the following resolution, which was carried unanimously :

*Resolved*, That the American Medical Association, now in session, urge upon Congress the necessity of suitable and efficient legislation to promote the well-being of immigrants to this country, and to protect our public health.

#### . THE ADDRESS IN MEDICINE.

The Chairman of the section, Dr. John V. Shoemaker, of Philadelphia, then read his address.

#### THE ADDRESS IN OBSTETRICS

was read by the Chairman of the Section in Obstetrics and Diseases of Women, Dr. T. A. Reamy, of Cincinnati ; he said that he would depart from the usual custom of giving a review of progress in the department, and would refer the members to current literature for the same. He read notes of 231 cases of laceration of the cervix uteri in which he had operated.

Dr. F. Horner, representative of the Virginia State Medical Society, offered a resolution with reference to

#### A PERMANENT FUND FOR THE FAMILIES OF DECEASED PHYSICIANS.

It was ruled out of order, as it was new business, which could not be entertained on the second day of the meeting.

Dr. Henry Smith, of Philadelphia, offered the following resolution concerning

#### EXPERIMENTAL MEDICINE :

*Resolved*, That a standing committee of seven, with power to increase its number as may be deemed necessary, be appointed by the President, to be known as the Committee on Experimental Medicine of the American Medical Association, charged with the duty of opposing, by all legitimate means, any proposed legal interference with the progress of medical science, as unwise and ill-considered legislation.

The resolution was supported by Drs. P. D. Keyser, of Philadelphia, and John C. Dalton, of New York, and was adopted with only one dissenting voice, that of a woman in the gallery.

The President appointed Dr. Horatio C. Wood, Philadelphia, Chairman ; Drs. Wm. Pepper and James Tyson, Pennsylvania ; Christopher Johnson, Maryland ; John C. Dalton and Austin Flint, Jr., New York, and J. S. Billings, U.S.A.

#### MEDICAL COLLEGE ADVERTISING.

Dr. Atwood, of St. Louis, offered a memorial from the St. Louis Medical Society, on the above subject, which criticised severely the questionable methods of medical colleges and schools in this direction.

It was referred to the Judicial Council.

Dr. D. Benjamin, of New Jersey, offered the following resolution, and supported it with a vigorous speech against medical colleges :

*Resolved*, That this Association earnestly urges upon all American medical colleges the necessity of elevating the standard of education, at least so far as to require preliminary examination and a three years' course, a registry of attendance, and practical demonstration of diagnostic skill.

The resolution gave rise to discussion, participated in by Dr. Brodie, of Michigan, who was willing to vote for the resolution if the end desired could be accomplished in that way, and Dr. Keller, of Arkansas, who thought that when preceptors furnished the medical schools good material, the schools, in turn, would give the profession educated medical men.

A motion was made to lay the resolution upon the table, and amid considerable confusion was put and declared carried.

Dr. M. H. Henry, of New York, said that every time this question had been brought before the Association it had been squelched in a most undignified manner.

Dr. Quimby raised the point of order that the negative vote had not been taken when the motion to table was declared carried.

The vote was taken again: ayes 76, nays 150.

Dr. Henry then supported the resolution with a vigorous and caustic speech, and did not shrink, though met by hissers, to whom he administered scalding reproof. The possession of a medical diploma obtained in this country he regarded as no evidence of qualification to either practise medicine or fill important and responsible medical positions.

Dr. Gibson supported the statement.

After some further random shots and calls of question, the resolution was adopted.

The President explained that the decision that the motion to lay upon the table was carried, the negative vote not having been taken was an oversight, and further added that he was in sympathy with the spirit of the resolution.

Dr. Packard, of Philadelphia, moved to take from the table certain amendments which had been put there at the meeting at St. Paul, pending the report of the Board of Trustees of the *Journal of the American Medical Association*, and that they be made the special order immediately after the delivery of the address of the Chairman of the Section in State Medicine on Thursday. Carried.

The Association then adjourned, after the reception of an invitation from Mr. Spencer W. Beard, Commissioner, to visit the place where artificial hatching of the shad was in progress.

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#### *Thursday, May 8th—Third Day.*

The Association was called to order at 10 A.M. by the President, and prayer was offered by the Rev. William Paret.

Dr. Keller, of Arkansas, rose to a question of privilege, and asked that the Association change the report of the Secretary, so that the Nominating Committee would designate a time for the annual meeting, in accordance with amendment to by-laws offered by him and adopted at the annual meeting at Cleveland. Request granted.

The President appointed a committee to nominate

#### TRUSTEES FOR "JOURNAL" TO FILL VACANCIES

caused by those who retire this year. It was composed as follows: Drs. E. D. Ferguson, New York; W. T. Briggs, Tennessee; J. E. Reeves, West Virginia; J. W. Prewitt, Missouri; George Peck, U. S. N.; Thomas Russell, Missouri; D. W. Stormount, Kansas.

#### REPORT OF COMMITTEE TO MEMORIALIZE CONGRESS CONCERNING A FIREPROOF BUILDING FOR THE ARMY MUSEUM AND LIBRARY.

The bill had been introduced in Congress, but no action had been taken. The House has increased the annual appropriation to ten thousand dollars. Report

received—Committee continued : Drs. Austin Flint, T. G. Richardson, H. F. Campbell.

Dr. G. M. Sternberg offered the following resolution, which was adopted :

*Resolved*, That a committee of five be appointed by the President to petition Congress to make

SPECIAL APPROPRIATION FOR PROSECUTION OF SCIENTIFIC RESEARCHES RELATING TO CAUSES AND PREVENTION OF INFECTIOUS DISEASES,

money to be expended under the direction of the National Board of Health. The following gentlemen constituted the Committee : G. M. Sternberg, A. L. Gihon, I. Minis Hays, J. C. Dalton, and J. E. Reeves.

Dr. Keller offered resolutions relative to the

#### CREMATION OF THE DEAD

as a sanitary measure, which were, however, declared to belong to new business, and were referred accordingly.

#### REPORT OF THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

The Committee unanimously favored carrying out the suggestion of the President, and recommended that a committee of seven be appointed, of which Dr. Austin Flint should be a member, whose duty should be to extend an invitation to the International Medical Congress at Copenhagen, to hold the next meeting in Washington, D. C., in 1887. It was also resolved that the Committee shall have power to elect its own officers, and in case the invitation is accepted, to act as an executive committee, to make all necessary and special arrangements for meeting, solicit funds, and draw from the treasury of the Association a sum not exceeding five hundred dollars, to defray preliminary expenses.

Adopted.

J. M. Toner, the Chairman of the Board of Trustees of *Journal*, reported, giving an account of the

#### FINANCIAL STANDING OF THE "JOURNAL,"

in which was incorporated the report of the editor. It appeared that

#### THE TOTAL INCOME FOR THE "JOURNAL" FOR THE FIRST YEAR

was eighteen thousand five hundred and forty-seven dollars and fifty cents ; and, after all expenses had been paid, it was thought there would remain a balance of five hundred dollars at the end of the year. Dr. Davis believed that the financial condition of the *Journal* was such as to enable him, should he continue to be the editor for another year, to widen its scope of usefulness by engaging correspondents in more of the large cities, and to justify him in devoting more time to its editorial management.

Dr. Toner stated that the *Journal* had, in its opinion, been conducted with economy, ability, and judgment, the best interest of the profession being kept in view, and its dignity maintained with rare discretion ; and it was confidently expected that the experience gained during the past year would enable the editor to greatly improve the *Journal*.

Dr. Packard, of Pennsylvania, offered a minority report, and stated that he had been given to understand that the financial condition of the *Journal* was straitened, and that for that reason the editor had not drawn any of his salary. In his opinion, the *Journal* did not approach in any way to the standard which the organ of the American Medical Association should reach. He was aware that there were difficulties in the way of starting a journal of this kind, but the

defects of the *Journal of the Association* had not become less marked during the nine months of its existence. The object of such a journal should be not simply to spread out the minutes of the Association over one year—it should be a wide awake, high-toned periodical in every respect, and not a sectional or partisan organ of the Association. Such a journal could be carried on only by a thoroughly trained corps of editors, and at a place where there was access to medical libraries, and where the best auxiliary work could be obtained, such work being liberally paid for. He therefore recommended that the resignation of Dr. Davis as editor be accepted, and that the publication of the *Journal* be transferred to some Eastern city, Washington, Philadelphia, or New York.

A motion was made that the minority report be laid upon the table. The President ruled that the majority report should first be acted upon. An appeal having been taken and sustained, the motion to lay the minority report on the table was acted upon. Dr. Beach, of Ohio, called for the ayes and nays. The motion to lay the minority report on the table was carried—ayes, 191; nays, 74. A motion to adopt the majority report was then put and carried.

#### OFFICERS FOR THE ENSUING YEAR.

The Committee on Nominations reported as follows, through its Chairman, Dr. Hooper: President, Henry F. Campbell, of Georgia; First Vice-President, J. S. Lynch, of Maryland; Second Vice-President, S. D. Mercer, of Nebraska; Third Vice-President, J. W. Parsons, of New Hampshire; Fourth Vice-President, H. C. Ghent, of Texas. The next meeting to be held in New Orleans, beginning the last Tuesday in April, 1885. Members of the Judicial Council: J. K. Bartlett, of Wisconsin; J. H. Murphy, of Minnesota; J. M. Toner, of the District of Columbia; William Brodie, of Michigan, H. D. Holton, of Vermont; A. B. Sloan, of Missouri; — Ulrich, of Pennsylvania; and W. M. Beach, of Ohio. Secretary, W. B. Atkinson, of Pennsylvania; Assistant Secretary, W. H. Watkins, of Louisiana; Treasurer, R. J. Dungleison, of Pennsylvania; Librarian, — Kleinsmidt, of the District of Columbia. Chairmen and Secretaries of Sections: Medicine, H. D. Didama, N. Y., G. M. Garland, Mass.; Obstetrics, R. S. Sutton, Pa., J. T. Jelks, Ark.; Ophthalmology and Otology, J. A. Whil, Va., Eugene Smith, Mich.; Surgery and Anatomy, Duncan Eve, Tenn., C. B. King, Pa.; Diseases of Children, J. L. Pape, Texas, S. S. Adams, D. C.; State Medicine, E. W. Schaufler, Kan., J. N. McCormick, Ky.; Oral and Dental Surgery, A. W. Harlan, Ill., J. E. Mears, Pa. Trustees of the *Journal*: H. F. Campbell, Ga., J. H. Packard, Pa., L. Connor, Mich. Chairman of the Committee on Necrology, J. M. Toner, D. C. Chairman of the Committee on State Medicine, J. A. Dibrell, Sr., Ark.

#### THE COMMITTEE ON METEOROLOGY.

Dr. N. S. Davis, Chairman of the Committee on Meteorological Conditions and their Relations to the Prevalence of Acute Diseases, read a report.

#### THE COLLECTIVE INVESTIGATION OF DISEASE.

Dr. Davis reported, with regard to the Collective Investigation of Disease Committee, that a proposition from a similar committee of the British Medical Association be accepted.

#### THE ADDRESS IN SURGERY.

By permission, the address was read by title only. It was on the effects and results of operations for the relief of gunshot wounds of the small intestine.



*Friday, May 9th—Fourth Day.*

The meeting was called to order by the President at 9.30 A.M.

VIVISECTION.

Dr. Dalton, chairman of the committee regarding experimentation on animals, offered the following :

*Resolved*, That this Association desires to express its earnest conviction that experimentation on animals is most useful to promote medical science, and can be intrusted only to members of the medical profession.

*Resolved*, That the committee be continued. Carried.

THE BOARD OF TRUSTEES.

A question arose whether nominations to fill vacancies in the Board of Trustees should be filled by the Special Committee on the Trustees or by the General Nominating Committee.

Dr. Ferguson, Chairman of the Special Committee, offered a resolution to the effect that the Committee approved of the nominations which had been made by the Nominating Committee—namely : Dr. Campbell, Dr. Packard and Dr. Connor. Carried.

Dr. Grisson made a motion declaring it to be the sense of the meeting that the *Journal* trustees should be nominated by the Nominating Committee. Carried.

COMMITTEE ON THE PRESIDENT'S ADDRESS.

This Committee reported through Dr. Davis, its Chairman, that no explanation regarding the code should be made without deliberation. Dr. Davis personally offered the following :

*Whereas*, Persistent misrepresentations have been and are being made concerning certain provisions of the Code of Ethics.

*Resolved*, That the President appoint a committee of five permanent members, to report at the next meeting of the Association such explanatory declarations on the subject as to the Committee may deem proper. Carried.

THE REGULATION OF IMMIGRATION.

Dr. Roberts moved the adoption of the following, which had been offered by Dr. Pratt, and adopted in the Section in State Medicine :

*Resolved*, That we earnestly urge upon Congress more efficient legislation on emigration, so as to exclude from our soil the defective classes of all nations.

*Resolved*, That the Chairman of the Section report this to the Association for adoption.

The President declared the resolutions out of order at present.

THE INTERNATIONAL MEDICAL CONGRESS.

The following permanent Committee on the International Medical Congress was appointed: Drs. Sayre, Johnson, Engelmann, Brown, Billings, and Campbell.

MEDICAL EDUCATION.

Dr. von Klein, of Ohio, gave notice of proposed amendments to the by-laws, and offered the following resolutions :

*Resolved*, That no person who shall hereafter graduate from a college where an educational test is not a prerequisite to admission shall be a delegate to the Association.

*Resolved*, That all delegates shall present as a part of their credentials a certificate, from the county or State society they represent, showing from what college and when they graduated, excepting delegates from the army and navy.

Dr. Pratt proposed an amendment providing that each section should nominate its own chairman and secretary.

Dr. Pratt moved that the publishers of the *Journal* be requested to publish in pamphlet form the minutes of the Association, with the constitution and by-laws, for distribution to members at the next session. Carried.

Dr. Brodie offered resolutions to facilitate the registration of delegates. Carried.

Dr. Robertson moved resolutions urging Congress to provide for the Museum of Hygiene. Carried.

It was moved that the nominating committee be not allowed to nominate any of its own members. Laid over one year.

Dr. Robinson brought up Dr. Pratt's resolutions on defective immigrants, and moved to lay them on the table. Lost. The resolutions were then adopted.

The Chairmen of the Sections in Ophthalmology and Otology, Diseases of Children, and Oral and Dental Surgery read their addresses by title, and they were referred to the publication committee.

Dr. Toner, of the Committee on Necrology, reported that the notices of deceased members had been published during the year.

On motion, the secretaries of sections were allowed to report directly to the permanent secretary.

Dr. Franzoni offered resolutions that members should seek to obtain from their States laws elevating medical education. Adopted.

Dr. Seiler proposed an amendment to divide his section into two, namely: 1. Ophthalmology; 2. Otology, laryngology, and rhinology.

The Treasurer's report showed a balance of \$2,212. On motion, the annual dues were continued at five dollars.

The Librarian's report was read in part.

Dr. Green, of Buffalo, offered resolutions urging Congress to provide for the completion of the third volume of the "Medical and Surgical History of the War of the Rebellion," and to issue a new edition of the entire work at cost. Adopted.

Dr. Beach offered a resolution urging Congress to take action to exterminate pleuro-pneumonia among cattle. Adopted.

The President-Elect was introduced by the President, and made appropriate remarks.

On motion of Dr. Brodie, it was resolved that the trustees of the *Journal* secure a stenographer at each meeting.

Dr. Von Klein offered resolutions abolishing the practice of opening the session with prayer. Lost unanimously.

A resolution to drape the next issue of the journal, in honor of the late Dr. Gross, was referred to the publication committee, with power.

A resolution against members signing their names to recommendations of proprietary medicines and mineral waters was carried.

A communication was read from the West Philadelphia Medical Society, with regard to the Code of Ethics, expressing the Society's adherence to it, and urging members to send pupils only to those colleges where the ethics of the code were maintained, which was referred to the Judicial Council.

Dr. F. E. Daniel, of Texas, offered a resolution urging that caustic potash, concentrated lye, and similar commercial preparations be rated as poisons. Carried.

A resolution from the St. Louis Medical Society was read, upon the subject of

advertising through the agency of medical colleges and college announcements and circulars. Referred to the Judicial Council.

Dr. Knott, of Texas, offered a resolution of respect to the memory of Dr. J. Marion Sims. This was, through mistake, not acted upon.

Dr. A. L. Gihon moved that a committee of five be appointed to consider the subject of erecting a monument to Dr. Benjamin Rush. Carried.

The following were next appointed as

DELEGATES ABROAD :

Drs. J. W. S. Gouley, E. C. Harwood, H. D. Didama, C. C. Wycoff, Fred Hyde, N. C. Husted, G. T. Stevens, and J. C. Hutchison, New York ; S. C. Gordon and T. L. Estabrook, Maine ; A. J. Jones, E. M. Dent and J. F. Gabriel, Virginia ; C. E. Vaughn and H. O. Marcy, Massachusetts ; J. V. Shoemaker, N. A. Hobday and W. H. Daly, Pennsylvania ; H. P. C. Wilson, Maryland ; D. W. Prentiss, L. Friederich and S. C. Busey, District of Columbia ; J. M. Browne, U. S. Navy ; J. S. Billings, U. S. Navy ; Edward Boerck, Missouri ; T. J. Gallaher and A. M. Pollock, Pennsylvania ; C. Deveny, Illinois ; C. Johnson, Maryland ; Austin Flint, New York ; H. F. Campbell, Georgia. Delegates Canadian Medical Association, W. S. Tremaine and E. N. Bush, New York ; W. Brodie and H. O. Walker, Michigan. British Science Association, W. Brodie.

Dr. Brodie, of Michigan, offered a resolution of general thanks to all committees, persons and institutions, who had extended courtesies to the Association. Carried.

Dr. Garcelon, of Maine, offered a resolution of thanks to the President, which was put by the Secretary and carried.

The Association then adjourned.

WEST TEXAS MEDICAL ASSOCIATION. April 9, 1884. Reported for GAILLARD'S MEDICAL JOURNAL by GEO. W. CHRISTIAN, M.D., San Antonio, Texas.

THE discussion was opened by Dr. Christian as follows :

SORE MOUTH OF NURSING WOMEN. ("FOLLICULAR STOMATITIS MATERNA" OF THE OLD AUTHORS.)

The first reference we find to this subject in the literature of this country was an article from Dr. E. Hale, which was published in the proceedings of the Massachusetts State Medical Association in 1830. Dr. Backus next contributed to the subject, and his paper appeared in the A. J. M. S., January, 1841. Numerous others appeared from different authors during the next few years succeeding, but lately I can find no reference through journal literature to the subject, and only mere references appear in the text-books.

The minor diseases of the mouth evidently have not until recently received careful attention from competent pathologists, as evinced by the meagre descriptions and confusions that occur in the references to be found.

That this is a separate and distinct disease, with a pathology of its own, I have serious doubts. That women while nursing should often suffer with aphthæ is quite probable. The extra tax upon her digestive apparatus during lactation must frequently result in digestive derangements, which are the commonest causes of aphthæ. But the mere fact of a woman's nursing, I don't think (while it has its etiological value) justifies a separate name. The description and symptoms of the disease, as given by Drs. Hale and Backus, answer quite well for the follicular form of aphthæ of the old authors, and from all the facts, as I have been able to glean them, I must record the disease as described by them as nothing more nor less. But this form of aphthæ is not confined to nursing or preg-

nant women alone, and therefore I can see no good reason why we should endow it with the name "nursing sore mouth." I can even comprehend why a woman while nursing would be more subject to this form of aphthæ than under other circumstances, and still fail to see in it a specific disease. If they are distinct in their pathology, they must indeed be very rare, or else I am quite dull of comprehension, never having been able to recognize any difference at the bedside, and would, in my present state of ignorance, were I to see nothing but the mouth, be as apt to call an aphthæ of the husband nursing sore mouth as that of the wife, an error which, if not fatal to the patient, would likely be to the future prospects of the physician.

Aphthæ sometimes develop in the course of stomatitis, but oftener independent of it, though with the former we always have a circumscribed development of the latter.

The disease is often not recognized until one or more painful white spots are visible on the tongue, lips or sides of the jaws. But if recognized at an earlier stage, will be seen to be in the form of small, hard, white, elevated points, which generally soon develop into small, oval, whitish ulcers, with raised edges and inflamed bases. Salivation is much increased, and if the ulcers are numerous, mastication is often impossible from the intense pain which is excited by the contact of food. These ulcers generally heal in three or four days, and may not return, but are often followed by others of like character. Sometimes they show but little tendency to heal, and spread in different directions, forming an irregular ulcer, which is sometimes very obstinate, taxing all the resources of the physician and endurance of the patient.

Aphthæ are more frequent in early life, though no one is exempt from them. Some of the worst and most intractable cases that I ever saw were in adults. It generally follows low fevers or other diseases which produce exhaustion, and is not often seen except in debilitated subjects. It spreads in some instances to the fauces palate and even to the stomach, and may produce death by the exhaustion which sometimes results from the diarrhœa which sets in, and the loss of food from inability to take it. This latter, though, is a rare result, the trouble generally terminating favorably in a few days under proper medical and hygienic management.

The causes of the disease are local and constitutional. Caustics and irritants, such as tobacco, alcohol, spices, bad teeth, hot and cold food and drinks are the most prominent among the local causes; while fevers, dyspepsia, diarrhœa, excessive lactation and want of wholesome food are the principal constitutional causes. Low, damp places and bad ventilation, too, predispose to the disease by weakening the general vitality.

The diagnosis is easy. Thrush, diphtheria and all diseases with a membranous exudation, are not liable to be mistaken for aphthæ, nor aphthæ for them. From stomatitis its recognition is easy by the difference in the seat and the absence of fetor, which always accompanies the latter and never the former.

The pathology consists in a local destruction of the epithelial layer of the mucous membrane, hyperæmia and infiltration of the membrane proper and sub-cellular tissue, or of inflammation of the mucous follicles in the follicular form of the disease.

The treatment is local and systemic. Chlorate of potas. is held in highest esteem as a local remedy, but in my hands has not been as efficient as sulphate of copper, and equally as painful. I employ the copper in solid stick, and rarely if ever have I had to touch the same spot the second time. Many other astringents have been used with satisfaction. Frequently washing the mouth with warm alkaline water is valuable, not only in allaying the pain, but, by insuring cleanliness, it aids very much the cure. Internally, tonics and alteratives, with nutritious food. Sunlight, pure air and cleanliness should be insisted upon, too,

in conjunction with other measures. The intelligent physician will select such a course as is best adapted to any particular case. Numerous remedies have been lauded as specifics by narrow-minded enthusiasts, who had but little conception of the etiology or pathology of this or any other disease. The specific remedies for this, as for other diseases, are not to be trusted. They are only the outgrowth of ignorance, or bigotry, or of both.

Aphthæ ordinarily gives us no trouble. A simple astringent wash, attention to the secretions, a bitter tonic and a few days' time completes the cure; but once in awhile a case will arise which defies all of our resources. We go from one lauded specific to another only to reap disappointment, forcing upon us the conclusion that disease is an unknown quantity, and medicines of uncertain value.

Where an intractable case occurs in a nursing woman we should, after failing with a simple and judicious course of treatment, if the patient is in any danger, insist upon taking the child from the breast, after which such cases usually rapidly recover.

## DISCUSSION.

Dr. B. E. Hadra.—As far as I am able to judge, I agree with Dr. Christian that, at the bedside, we are not able to distinguish the aphthæ of nursing women from the aphthæ of males or non-nursing women. Yet I believe that the disease is peculiar and depends upon bacteria, and that the microscope will yet demonstrate the special form of the microcosms upon which the disease depends. A recent case has led me to believe thus strongly, from the fact that I found the same aphthous-like patches in the vagina as in the mouth. We can readily see how, granting that the disease is fungoid, a woman would convey the disease from her mouth to vulva, nipple, etc., in the common act of moistening the fingers in the mouth and then applying them to the nipple, etc.

Dr. Geo. A. Cupples.—Nurses' sore mouth, as seen by me, does differ from aphthæ, and is easily recognized at the bedside. It only occurs on the dorsum of the tongue, and in patches which resemble psoriasis. I have had a patient who had three successive attacks with three different children. The children all had the same form of the disease. The mother always recovered promptly on weaning. Saw a child die of the disease by extension to stomach and bowels, which was verified by post-mortem. The mother died six or eight months afterwards with the same disease. She had an enlarged and waxy liver. The microscope would be the only means of differentiating the different forms of the disease.

Dr. Elliott.—I have seen a great deal of the disease (nurses' sore mouth) while practising in the valley of the Mississippi, and am the author of a paper on the subject. The disease affects all the mucous membranes, vagina, lungs, etc. Have seen nothing peculiar in the ulcers themselves by which I could distinguish this from other forms of aphthæ. It has never occurred to me except in broken-down constitutions. The gums would sometimes separate from the teeth, and I have seen them drop out of the mouth. The teeth were soft, having lost their proportion of phosphates. My patients all recovered on the hypophosphites of lime. Locally, have had best results from oxide of silver. The disease generally appeared before the birth of the child, but have been able to nurse through by the constant use of the hypophosphites.

I don't think that Dr. Hadra's theory, of conveying the disease by the finger in the act of moistening the nipple, tenable, from the fact that the disease often appears previous to birth.

Dr. Watts.—I have a case now which has proved refractory. The lady was confined of a still-born child, though there was a secretion of milk without nursing. The disease is of the follicular form, and has resisted, so far, local and constitutional treatment.

Dr. King.—We have all doubtless seen more or less of the disease. I have no positive knowledge of the cause. I think that Dr. Hadra is right, that the microscope is the only means by which we can arrive at a knowledge of its etiology and pathology. The treatment ought to be tonic and restorative. The form of which Dr. Cupples speaks is different from ordinary aphthæ, but what this difference is I am not able to state.

Dr. Hadra.—Dr. Elliott's remarks are very interesting, and may be true from a point of observation, and incorrect in attributing the recoveries to the systemic influences of the drugs. It is not just to infer the pathology simply from the results of treatment. Dr. Elliott's wonderful success may have been from the local effect of the drugs and not the systemic. We are in our infancy yet in a knowledge of the cause of disease. The recent discoveries of Koch in tuberculosis and cholera are startling, and open up new fields for investigation. I am a strong believer in the germ origin of many diseases.

Dr. Cupples.—We are just where we began. We seem not to have arrived at a distinct understanding of what nurses' sore mouth is. The cases referred to by Dr. Elliott were only a fungoid form of aphthæ. The low forms of fungus attack all broken-down subjects, not only in the animal but in the vegetable kingdom as well. The grape crop was often destroyed in portions of France in this way, and we were conscious of the ravages of fungus growths in our own country.

The disease, as I have seen it, does differ from aphthæ. It differs in appearance and in location: attacks only the dorsum of the tongue where the papillæ are the most prominent.

Dr. Christian's rejoinder.—If nurses' sore mouth is a distinct type of disease, I should be very happy to know its peculiar features. So far, Dr. Cupples seems to be the only one among us who has recognized in it a distinct form; but, as far as I know, his observations do not correspond with those who have written upon the subject. Dr. Elliott's theory is worthy of serious consideration. His experience agrees with mine, that the disease only attacks those broken down in health, and his success with the hypophosphites would strengthen his idea that this failure of the health was from an absence of the hypophosphate. I hope that others will try this mode of treatment, and reap the same brilliant results which have crowned his efforts.

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SOME CURIOUS MORTALITY STATISTICS.—Dr. William Pratt, of London, in his address to young men, gives these facts: According to statistics, the married life is not only the purer, producing the minimum of evil-doers and criminals, but it is also by far the most healthy. Take the male sex, and it is seen that from twenty-five to thirty years of age, 1,000 married men furnish 6 deaths; 1,000 bachelors furnish 10 deaths; 1,000 widowers furnish 22 deaths. The figures, however, become very unfavorable if the marriage be contracted before twenty. Out of 8,000 young men married before twenty, their mortality has been found to be, before marriage, only 7 per 1,000; after marriage, 50 per 1,000. With respect to the female sex we find a similar advantage of marriage over celibacy, but on the same condition. If young girls be turned into wives before twenty a like mortality befalls them which befalls the other sex. Everywhere young married people from eighteen to twenty years of age die as fast as old people from sixty to seventy years of age. The common sense and common law of Western Europe have with perfect justice marked twenty-one as the age of maturity. After that epoch, however, marriage should be contracted as soon as practicable. It is the healthiest and the happiest life; the best for the individual and for the community.

SANITARY DEPARTMENT.

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PHILADELPHIA'S WATER.—PHILADELPHIA, May 18.—Chief Engineer Ludlow, in his report to City Council, presents some startling facts in relation to the water supply of this city, his calculations and deductions being based upon data carefully collected by his surveying parties. He says that the Schuylkill River is the natural sewer for a population of 350,000 persons largely engaged in manufacturing, and whatever may be the varying judgments of physicists as to the power of a running stream to purge itself of contamination, it is very certain that the river itself has furnished the most convincing evidence of its inability to digest or dispose of the injurious matters discharged into it. A tabulated statement shows the principal sources of pollution. A total of 8,800,000 gallons of domestic sewage daily empties into the streams, and, at the same time, water-closet drainage, directly and indirectly, from a population of 17,222 persons. The water as it nears the city, where there is a daily consumption of 69,000,000 gallons, has been subjected to almost every sort of contamination. Poisonous chemicals, wool washings, slaughter-house offal, dyestuffs, thick pulpy waste from gas-works, and brewing refuse combine to pollute the streams. A delightful drink ; and the doctors do nothing.

PAPER TOWELS FOR SURGICAL PURPOSES.—Dr. Roberts, of Philadelphia, has been using, with much satisfaction, Japanese paper handkerchiefs for drying wounds. Sponges are so seldom and with such difficulty perfectly cleansed after being once used, that they are never employed in the clinic. Ordinary cotton or linen towels are much preferable to sponges, but, if dirty, are liable to introduce septic material into wounds. The paper towels answer the same purpose as cotton ones, and are so cheap that they can be thrown away after being used. They cost from \$6 to \$7.50 a thousand. The cost of washing a large number of ordinary towels is thus avoided. The paper towels are scarcely suitable for drying hands, after washing, unless several towels are used at once, because the large amount of moisture on the hands soon saturates a single towel. For removing blood from wounds, a paper towel is crumpled up into a sort of ball, and then used as a sponge. Such balls absorb blood rapidly. The crude ornamental pictures, in color, on the towels, are of no advantage, nor are they, as far as known, any objection.

HOMES.—Custom, luxury, and fashion, as affecting the interior arrangements of dwellings, have gradually converted house drainage into a source of danger which does not properly belong to it as a hygienic element in a sanitary system. Before the art of construction of the purely mechanical arrangements which belong to house drainage was

brought to its present state of excellence, and, indeed, before the insidious dangers connected with it were discovered or understood, the fashion of placing the openings through which house refuse is discharged into the sewers within the very innermost recesses and most imperfectly ventilated parts of dwellings was introduced as a matter of convenience or so-called luxury. When the evil consequences of this began to be felt, remedies in the form of traps and plumbing devices were multiplied, until finally, after the inventions of more than a quarter of a century have been brought to bear on the subject, we are obliged to confess that the problem is not yet satisfactorily solved. While it is true that, through the progress of the mechanic arts and constant study, stimulated by sad experiences, there has been during the last few years a decided amelioration of evils which for a long time numbered victims by thousands, yet no system of construction or patent devices which has been, or probably will be, introduced can be pronounced perfectly and permanently safe, so long as the present custom continues of placing plumbing conveniences within the walls of living, and, above all, of sleeping rooms. Pipes will decay, traps will become unsealed, the water supply will occasionally be intermitted or suspended, drains will become foul or leak. And when we consider the impracticability of a constant supervision, especially in rented or tenement houses, by competent persons, and the cost of such supervision, so reluctantly borne even in case of the most flagrant defects—defects which usually announce themselves by the outbreak of disease, and perhaps by deaths—it is impossible not to feel that the system, as it is now generally practised, should be abandoned.

A HOSPITAL WITH CIRCULAR WARDS.—For some time past an attempt has been made to raise the funds needed to provide hospital accommodation for the town and district of Burnley, Lancashire. The plans approved of by the committee provide for the erection of a hospital with one story pavillion wards of the circular form, as suggested by Professor Marshall, President of the Royal College of Surgeons. Two of these wards are to be built at present, with an internal diameter of 60 feet, for the accommodation of twenty beds each.

THE death-rate of Russia is the highest in Europe. This is attributed to the paucity of medical men and the habits of the rural population. According to late returns the average duration of life is only 26 years, and the mortality among infants is frightful. More than 60 per cent. of infants die before they reach their fifth year, and nearly 2,000,000 children perish every year. Of 8,000,000 boys, only 3,770,000 attain the age of military service—that is to say, their twenty-fifth year; and of these at least 1,000,000 are found, by reason of shortness of stature and weakness of body, to be unfit for military duties.



PHARMACY AND THERAPEUTICS.

A COMPARISON OF WEIGHTS, MEASURES, ETC., PREPARED BY REQUEST FOR CONVENIENCE OF READERS.

FRENCH WEIGHTS IN TROY WEIGHTS.

1 milligramme.....	equal to	1-65th grain.
1 centigramme.....	"	1-6th "
1 decigramme.....	"	1½ grains.
1 gramme.....	"	15 "
1 decagramme.....	"	150 "
1 hectogramme.....	"	1,465 "
1 kilogramme.....	"	14,720 "
1 myriagramme.....	"	145,824 "

FRENCH MEASURES OF LENGTH IN ENGLISH MEASURES OF LENGTH.

1 millimetre.....	equal to	1-1,000th metre.
1 centimetre.....	"	1-100th "
1 decimetre.....	"	1-10th "
1 metre.....	"	39 37-100th inches.
1 decametre.....	"	10 metres.
1 hectometre.....	"	100 "
1 kilometre.....	"	1,000 "
1 myriametre.....	"	10,000 "

FRENCH MEASURES OF CAPACITY IN ENGLISH MEASURES OF CAPACITY.

1 millilitre.....	equal to	15 troy grains water.
1 centilitre.....	"	150 "
1 decilitre.....	"	1,500 "
1 litre.....	" (1 qt.)	15,000 "
1 decalitre.....	"	150,000 "
1 hectolitre.....	"	1,150,000 "

NOTE.—1 grain troy is equal to 1 and 8-100ths grains in apothecary's weight.

TEMPERATURE AND WEIGHT.

1 lb. water at 60 deg. F. . .	equal to	79-100ths pint, or 6.067 22-100ths minims.
1 oz. " " . . .	.. equal to	1 5-100ths fl. oz., or 505 60-100ths minims.
1 gr. " " . . .	.. equal to	1 5-100ths minims.
1 fl. drachm water at 60 deg. F. . .		56 96-100ths grains.
1 fl. oz. " " . . .		455 69-100ths "
1 fl. gallon " " . . .		231 cubic inches.
1 fl. pint " " . . .		28 87-100 "

TEMPERATURES.

CENTIGRADE.—To convert Centigrade (C.) or Celsius to Fahrenheit—multiply by 9, divide by 5, and add 32. Thus 40 deg. C. multiplied by 9 equal 360 deg.; divide by 5, equal 72 deg.; add 32, equal 104 deg. F.

REAUMUR.—To convert Reaumur (R.) to Fahrenheit—multiply by 9, divide by 4, and add 32. Thus 40 deg. R. multiplied by 9 equal 360 deg.; divide by 4, equal 90; add 32 equal 112 deg. F.

PERCENTAGE OF ALCOHOL IN WINES, LIQUORS ALES, ETC.

Strong Port 25, Madeira 24, Sherry 19, Malaga 17, Brandy 53, Rum 53, Gin 51, Whiskey 52 to 54, Burgundy 14, Sauterne 14, Champagne 12 to 14, Tokaya 9, Rudesheimer 10, Catawba 8 to 10, Cider 6 to 9, Mead 7, Burton Ale 8, Scotch Ale 6, Brown Stout 6, Porter 4, Strong Claret 17, Chateau Latour 9, Hock 9 to 12, Lachryma Christi 19, Vin Ordinaire 10.

KOUMISS.—Koumiss made at home costs about fifteen cents per quart. The following directions are given for its manufacture: Fill a quart champagne bottle up to the neck with pure milk; add two tablespoonfuls of white sugar, after dissolving the same in a little water over a hot fire; add also a quarter of a two-cent cake of compressed yeast. Then tie the cork on the bottle securely, and shake the mixture well; place it in a room of the temperature of 50° to 95° Fahrenheit for six hours, and finally in the ice-box over night. Drink in such quantities as the stomach may require. It will be well to observe several important injunctions in preparing the koumiss, and they are: To be sure that the milk is pure; that the bottle is sound; that the yeast is fresh; to open the mixture in the morning with great care, on account of its effervescent properties; not to drink it at all if there is any curdle or thickening part resembling cheese, as this indicates that the fermentation has been prolonged beyond the proper time. Make it as you need to use it. The virtue of koumiss is that it refreshes and stimulates, with no after-reaction from its effects. It is often almost impossible to obtain good fresh koumiss, especially away from large towns. The above makes it possible for any physician to prescribe it.—*Chicago Rev.*

GELATINE BANDAGE, TRAUMATICINE, ETC.—Dr. Pick has been employing a glue varnish as a protective coating for cases of chronic eczema, psoriasis, etc. It consists simply of a strong solution of gelatine, or fine glue, painted over the affected parts with a brush, and made flexible by a little glycerine rubbed over its surface after it is dry. For the same purpose Professor Auspitz has proposed a chloroformic, ten per cent., solution of gutta percha. Both these substances are transparent, and permit the surface to be readily seen. If they should crack or peel they can be easily repaired.

THE PHYSIOLOGICAL ACTION OF COFFEE.—According to the result of experiments recently made by Messrs. Couty and Guimaraes to ascertain the precise

physiological action of coffee, that beverage is not a preventer of tissue-waste. The maintenance of nutrition is, no doubt, improved by its consumption, as Gubler asserted, but simply because it involves an increased assimilation of nitrogenous food through improving the appetite, when not taken in excess, and thereby encouraging its consumer to take nutritious food.—*British Medical Journal*.

## ROOSEVELT (N. Y.) HOSPITAL FORMULÆ.—

## SEDATIVES.

*Chloral.*

- ℞. Chloral hydrate . . . . . grs. viiss.  
 Bromide potass . . . . . grs. viiss.  
 Orange flower water . . . . . ℥ xv.  
 Water, s. q. . . . . ʒ j.  
 M. Dose, ʒ j.

*Jim Jams.*

- ℞. Bromide potass . . . . . grs. xxx.  
 Hydrat. chloral . . . . . grs. xv.  
 Magend. sol. morph. . . . . ℥ v.  
 Syr. orange peel . . . . . ʒ j.  
 Water, s. q. . . . . ʒ iv.  
 M. Dose, ʒ ss, as directed.

*Mixed Bromide.*

- ℞. Bromide sodium . . . . . grs. x.  
 Bromide potass . . . . . grs. xx.  
 Bromide ammon. . . . . grs. x.  
 Syr. orange peel . . . . . ʒ ij.  
 Water s. q. . . . . ʒ iv.  
 M. Dose, ʒ iv.

*Bromide Solution.*

- ℞. Bromide sol. . . . . grs. xv.  
 Water . . . . . ʒ j.  
 M. Dose, ʒ j.

*Hysteria.*

- ℞. Tinct. castor . . . . . ℥ vi.  
 Comp. tinct. valer., s. q. ʒ j.  
 Dil. phosphoric acid . . . . . ℥ vi.  
 M. Dose, ʒ j.

*Elixir of Guarana.*

- ℞. Fl. ex. guarana . . . . . ℥ x.  
 Simple elixir, s. q. . . . . ʒ j.

## DIURETICS.

*Buchu Mixture.*

- ℞. Fl. ex. buchu . . . . . ʒ ss.  
 Tinct. hyoscyam . . . . . ʒ ss.  
 Sol. citrat. potass . . . . . ʒ j.  
 M. Dose, ʒ ij.

*Digitalis.*

- ℞. Infus. digitalis . . . . . ʒ j.  
 Acet. potass . . . . . grs. xv.  
 Water, s. q. . . . . ʒ ij.  
 M. Dose, ʒ ij.

## ANTI-SYPHILITIC MIXTURES.

*Mixed Treatment.*

- ℞. Bichlorid. mercury . . . . . gr. 1-32.  
 Iodide potassium . . . . . grs. x.  
 Comp. syr. sarsap . . . . . ʒ ss.  
 Water, s. q. . . . . ʒ ij.  
 M. Dose, ʒ ij.

*Iodide Potassium.*

- ℞. Iodide potassium . . . . . grs. x.  
 Comp. syr. sarsap . . . . . ℥ xv.  
 Water, s. q. . . . . ʒ j.  
 M. Dose, ʒ j.

*Saturated Sol. Iodide Potassium.*

1—1.

ʒ j sol. represents ʒ j iod. potass.

ROCK AND RYE.—Dr. E. H. Bartley, chemist to the Brooklyn Board of Health, has made a report to that body in regard to the "rock-and-rye drops," which, although flavored with fusel oil, are constantly sold at the candy shops in large quantities to school children, and in it he says: In some of these candies the oil is not thoroughly mixed or diffused, and occasionally a good-sized cavity is filled with fusel oil. Estimating that a child may buy and eat a half pound of this candy, containing 5.7 grains of the oil, it will be seen that it will take the maximum dose for an adult, and will probably experience distinct symptoms, such as dizziness, headache, or even slight intoxication.

A NEW TREATMENT FOR NEURALGIA—HYPEROSMIC ACID.—The latest agent introduced for the relief of neuralgia is a 1 per cent. solution of hyperosmic acid, administered by subcutaneous injection. It has been employed in Billroth's clinic in a few cases. One of the patients had been a martyr to sciatica for years, and had tried innumerable remedies, including the application of electricity no fewer than 200 times, while for a whole year he had adopted vegetarianism. Billroth injected the above remedy between the tuber ischii and trochanter, and within a day or two the pain was greatly relieved, and eventually quite disappeared. It would be rash to conclude too much from these results, in the face of the intractability of neuralgia to medication, but if it really prove to be as efficacious as considered, hyperosmic acid will be a therapeutic agent of no mean value.

THE AMOUNT OF IODINE IN COD-LIVER OIL.—Mr. Edward C. Stanford has just gone over this much-contested ground, and reached the conclusion that the amount of iodine has heretofore been very much overestimated. The mean of six samples in his hands, and carefully examined, was 0.000322.

JANE'S EXPECTORANT is said to consist of :

Tartar emetic . . . . .	gr. iv.	Tincture of lobelia . . . . .	ʒ i.
Spirit of camphor . . . . .	ʒ i.	Syrup of tolu . . . . .	ʒ 1½
Ipecac . . . . .	gr. iv.	Tincture of digitalis . . . . .	ʒ i.
Tincture of opium . . . . .	ʒ ij.	Syrup of squills . . . . .	ʒ ij.

—*New Remedies.*

PROF. ROGERS has demonstrated the folly of decolorizing solutions of iodine, the reaction causing really the formation of an iodide and iodate.

HUNYADI JANOS.—H. Fresenius analyzed the Hunyadi Janos water and found it to contain the following salts :

Sodium sulphate . . . . .	19.662123
Magnesium sulphate . . . . .	18.449451
Calcium sulphate . . . . .	1.321953
Potassium sulphate . . . . .	0.132943
Sodium chloride . . . . .	1.424068
Magnesium carbonate . . . . .	0.731347
Iron carbonate . . . . .	0.002059
Silica . . . . .	0.011218
Carbonic acid (semi-combined) . . . . .	0.383868
“ “ free . . . . .	0.012683
Lithium . . . . .	Traces.
Strontium . . . . .	“
Nitric acid . . . . .	“
Boracic acid . . . . .	“
Bromine and iodine . . . . .	“
Nitrogen . . . . .	“
Phosphoric acid . . . . .	“

The carbonates are calculated as simple monocarbonates, and all the salts are anhydrous, *i. e.*, without water of crystallization. The cathartic properties are due to the salts of magnesia and sulphate of soda.

ANTAGONISM OF CHLORAL AND STRYCHNIA.—In a communication to the *Texas Courier-Record of Medicine*, Dr. W. B. Brooks reports a case of accidental strychnia poisoning successfully treated with chloral, the remarkable feature

being that, a few months later, the same patient took an overdose of chloral, which rendered her perfectly comatose; but, under the hypodermic use of strychnia, she rallied soon.

EXPLOSIVE MIXTURE.—In Manchester, Eng., a druggist dispensed “three pennyworth of quicksilver and three pennyworth of aqua fortis” to a man who wished to mix them to make some sort of an ointment. The man had bought these articles before, but they had always been put up separately. On this occasion they were put in the same bottle, which the man placed in his breast pocket, and left the shop. Very soon the bottle exploded, burning his face and eyes so seriously that he died at the Manchester Eye Hospital.

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## REVIEWS.

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SHAKESPEARE AS A PHYSICIAN. By J. PORTMAN CHESNEY, M.D., of St. Joseph, Mo. Published by J. H. Chambers & Co., St. Louis. Price, \$2.25.

This work is the result of great and most fatiguing labor. There is nothing however original in it, and the whole literary mass was evidently put together very much as a child would put together the elements of a Chinese puzzle; or, as a boy would make a map, by placing in juxtaposition the different sectional parts which are required to create the whole. There is, however, this great difference to be borne in mind, that whereas the child bought or had given to him the Chinese puzzle, or the map, the author of this book was compelled to go to Shakespeare for the very numerous extracts which are required to make up his book.

He seemed desirous of putting together all extracts from the great master which in any manner related to medicine; and it is astonishing to see that he found extracts to represent most of the branches of medical science—obstetrics, neurology, psychology, pharmacology, dermatology, chirurgery, organology (?), with many miscellaneous articles; and while it is true that the Immortal Bard is made to appear as knowing a little on a great many medical matters, and not much on any one, still it is he who is to be blamed for this, and not his devoted admirer and ingenious copyist.

It is simply curious to see in this book how often Shakespeare speaks on medical subjects, and though what he says in this connection has not the least professional, or even scientific value, still it is evident that if he knew nothing of what he wrote of medicine, he at least, like many others, was under the impression that he was quite profound in his knowledge of such subjects.

The author has offered many comments on the different subjects presented, but these do not add to the value of the work. His style is often bad; the words used being drawn largely from vulgar, and not from classical sources as would have been especially appropriate in such a work. He is a materialist of a very decided character, and while he is not, on this account, properly the subject of public criticism, it is to be regretted that such views are causelessly and inappropriately interjected into the text of this very curious compilation.

The book is well printed, and the paper used by the publisher is good; the illustrations are, however, very poor and coarse, and ought to be carefully corrected in time for the next edition. The illustration of Lady Macbeth murdering the sleeping Duncan is particularly bad and amusing; no one could have slept on such a couch, and on any couch sleep in such a posture would have been impossible. Indeed, had the Thane of Cawdor given to his royal guest such a couch, it is safe to say the murder would never have occurred. It may be an artistic license to present Lady Macbeth plunging a dagger into the bosom of her sleeping guest, but as the murder was perpetrated by her husband, the necessity for this very bad cut is not especially apparent.

ELEMENTARY PRINCIPLES OF ELECTRO-THERAPEUTICS FOR THE USE OF PHYSICIANS AND STUDENTS. By C. M. HAYNES, M.D. Chicago: McIntosh Galvanic and Faradic Battery Co., 192 Jackson street, Chicago, Ill. Pp. 420, with 125 illustrations. Price, \$2.

This work possesses many merits. It is devoid of theories. It is so simple as to be almost elementary in style. The diction is clear and concise. There is no "padding" in the shape of useless extracts. It refers to over forty authors, and gives their names. It has a copious glossary, giving the meaning of all technical terms and phrases. It shows what is magnetism, galvanism, Franklinism and Faradism, and gives their specific principles and effects.

It is a good book for all who wish to be taught *ab initio*; at the same time it is very useful to the practitioner who is most interested in electro-therapeutics, and desires plain, intelligible and reliable guidance. While very little space is given to the description of batteries, an evil in almost all such works, great care is bestowed on the methods of keeping batteries in working order, a matter of great moment to the physician. The author has succeeded in giving to the profession what is much needed—a simple, intelligible and reliable guide in the therapeutics of electricities, with a clear and concise description of the different kinds of electricity, and the methods of their clinical application. This work is therefore recommended to the profession.

PRESIDENT'S ANNUAL ADDRESS BEFORE TEXAS STATE MEDICAL ASSOCIATION, April, 1884. By A. P. BROWN, M.D., Jefferson, Texas.

This is a very creditable effort to show the rapid advance of medicine and the names of those who, in its various periods, have done most to secure its triumphs and progress. The address manifests not only an excellent familiarity with medical literature and history, but also, what is not usual, a conspicuous familiarity with collateral sciences and their classic records.

The author is incorrect, however, when he says of Ephraim McDowell: "No school suggested to McDowell to do and to dare the grand operation by which thousands of lovely women now live to bless his memory." This is a very common error, but it is one, nevertheless. It is certainly beyond a doubt that the operation which McDowell first performed was suggested to him when a student at Edinburgh, by his preceptor, Dr. Bell, of that city. As a matter of record, this ought to be generally known, and is therefore mentioned here for this purpose, and not from any disposition to useless criticism.

THE PHYSICIAN AND HIS RELATION TO THE PROFESSION AND TO THE PATIENT.  
By JOHN BLANKINSHIP, M.D. An Address Delivered by Him, as the Retiring  
President of the Blount County Medical Society, April 7th, 1884.

All are familiar with the hackneyed manner in which this subject is presented in the Code of Ethics. The author of this address avoids these old methods, and goes to past and contemporaneous literature to show the argument necessary to elucidate his theme. He evinces careful thought in this, and very creditable familiarity with medical literature. He gives the names of many of the most earnest laborers in the medical field, and bestows upon them enthusiastic praise for their share in the medical harvest. The errors due to careless proof reading are numerous—Groose for Gross; Pancost for Pancoast; Sayer for Sayre; Mach for Bache; Beatty for Battey; Versalius for Vesalius; Petolemaic for Ptolemaic, etc. This is to be regretted.

VETERINARY MEDICINE AND SURGERY IN DISEASES AND INJURIES OF THE HORSE.  
Compiled from standard and modern authorities, and edited by J. O. KIRBY.  
Illustrated by four colored plates and 106 wood engravings. New York:  
Wm. Wood & Co. Pp. 332.

This is an excellent book. Every doctor who is good for anything loves his horses, and wishes, when these need treatment, the very best advice. This work gives what is needed, and will be therefore prized, and justly prized, by the profession. It is a friend both to the horse and his owner.

NOTE.—The remainder of the matter, etc., of this department, is reserved for the July number.—ED.

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INTERESTING RESOLUTIONS.—The following resolutions were recently adopted by the Trigg County (Ky.) Medical Society, and I send them to GAILLARD'S MEDICAL JOURNAL for publication, by the request of the Society. J. W. CRENSHAW, Secretary, Cadiz, Ky., May 30, 1884:

*Whereas*, There has recently been some diversity of opinion and some disturbance amongst the members of the medical profession, especially in New York, in regard to the Code of Ethics of the American Medical Association, and as we deem it the duty of every member of the Profession to express his views in reference to said Code,

*Therefore be it resolved*: That in our opinion each County Society is subordinate to its State Society, and each State Society to the National Association, which alone at its regular meetings, in accordance with its prescribed forms, is authorized to make changes in its Code of Ethics, and consequently each County and State Society, so long as it claims connection with and representation in the National Association, should require its members to observe the Code of Ethics of the National Association.

*Resolved*, That whilst we do not claim perfection for the present Code of the American Medical Association, we do heartily endorse the provision in it in regard to consultations—the one which has caused the disturbance—and pledge ourselves to *observe* and *enforce it* and all other provisions of the Code, until changed by the National Association itself.

## MISCELLANEOUS.

THE LATE CHARLES DARWIN.—Under the domination of a many-sided, sensitive, and highly-strung nervous system, the health of the late Charles Darwin was always delicate, and often seriously impaired. For many years he was a sufferer from catarrhal dyspepsia; later, he suffered from various irregular manifestations of a gouty constitution, such as eczema, vaso-motor nerve-storms, vertigo, and other disorders of sensation. Nevertheless, by means of great care in diet, exercise, and regularity of sleep, he managed to keep himself in sufficiently good order for almost continual work of the highest kind. He became subject to attacks of palpitation, with irregularity of the heart's action, occasionally accompanied by pain in the chest spreading to the arms. Later it was found that the heart and greater bloodvessels were degenerating. The anginal attacks became more frequent, and signs of heart-failure more serious; and it was, as we understand, in one of these attacks that the greatest naturalist expired.—*British Medical Journal*.

DECALCIFIED BONE DRAINAGE TUBES.—Prof. Gross gives the following directions for making decalcified drainage-tubes: Procure the femora and tibiæ of a chicken or turkey, take off the periosteum, and place the bones in 16 $\frac{2}{3}$  per cent. solution of official hydrochloric acid until they become soft; then cut off the ends and force out the endosteum; replace in the hydrochloric acid solution until they become very soft; fill them with horse-hairs, which must be removed if pus forms, as they will not allow it to pass. However, he recommends removing the bone tube in twenty-four hours, as it can only be absorbed by granulations, which render union by first intention out of the question.—*Collegè and Clinical Record*.

AN AGED MOTHER AND A HEROIC YOUNG HUSBAND.—M. A. Cachot, M.D., of San Francisco, in the *Medical Reporter* of January 19, 1884, informs us of a woman giving birth to a child when forty-eight years of age. It also quotes from the *British Medical Journal* the reports of women fifty years of age giving birth to living children. During my term as resident physician to St. Mary's Hospital, in this city, I delivered a Canadian woman of her first child when fifty-three years of age. The labor was very severe, and after forty-eight hours I delivered her with forceps of a large living child. She was married at 52; menstruation had ceased at 47. Her husband was 24. A year afterwards she had another child.

ARTIFICIAL VACCINE LYMPH.—M. Quist, of Helsingfors, has recently made some very interesting experiments with vaccine lymph, and has come to the conclusion that the micrococcus, to which the fluid owes its activity, can be made to multiply at will without losing its power. He placed a fragment of pustule in a liquid prepared by mixing blood-serum with glycerine, and adding a small quantity of carbonate of potash (1 to 900). The fluid was kept under a glass cover at the temperature of the room. After a few days, it contained numerous micrococci, and could be used with success for inoculations; it did not lose its activity after being kept for three weeks in a sealed tube. Revaccination with fresh lymph gave no result in a child previously inoculated with artificial lymph.

THE EXACT VALUE OF THE ELECTROLYTIC METHOD.—In a paper read before the American Academy of Medicine on the above-named subject (*Med. Record*, October 13), the author, Dr. A. D. Rockwell, formulated the following conclu-

sions: 1. The success met with in the treatment of malignant tumors is generally but trivial. In epithelioma, however, when superficial and easily reached, success may be had. 2. The electrolysis of *intramural* fibroids often reduces the size somewhat, and gives great relief. 3. For erectile and small cystic tumors electrolysis is a specific. 4. Goitres, if small and soft, may be reduced in size, even by external applications. Even when hard, electrolysis may be beneficial, but the results are variable. 5. Hairs can be permanently removed. 6. In many cases of stricture relief or cure can be obtained by electrolysis, but experience is not sufficient to speak of its value positively.

LOCALIZATION OF ARTICULATE SPEECH.—At the meeting of the French Academy of Medicine, held December 12, 1883, Dr. Bilot presented a memoir on the seat and direction of the capsular radiations whose function is concerned in the transmission of speech. The author believes that, according to his researches, the opinion of Bouillaud, who accorded no more importance in this connection to one frontal lobe than to the other, is more nearly correct than that of Dax and Broca, according to whom the left side alone is functionally concerned with articulated language. If the frontal lobe is not, strictly speaking, the governing organ of speech, it nevertheless contains the agents charged with its transmission. The memoir was referred to a commission, composed of MM. Vulpian and Mathias Duval.—*Gazette Hebdomadaire*.

NEW TREATMENT OF FIBROIDS OF THE UTERUS.—Mr. Knowsley Thornton, of the Samaritan Hospital, London, Eng., has successfully ligated the uterine and ovarian arteries in cases of fibroids of the uterus. The results are reported to have been excellent, and promise completely to supplant hysterectomy. We are reminded that Dr. Cattermole, of London, Ont., suggested this operation in certain forms of utero-ovarian tumors in the *Canada Lancet* for November, 1880. It is somewhat gratifying to learn that a suggestion emanating from one of our distinguished Canadian confrères has been successfully carried into effect.—*Canada Lancet*.

THE *London Medical News* relates an amusing instance in which a candidate was treated with unusual consideration by his examiners. Requested by one of the latter to cut down on and tie the subclavian artery, the candidate did as directed, but could not at once find the vessel. Irritated, seemingly by his failure, the examiner urged him to "Pick it up, sir; there it is, right under your nose," and on the candidate mildly suggesting that this particular structure was a cord of the brachial plexus, the second examiner present, in order to prove the ignorance of a mind which could dictate such absurdity, lifted and divided—a *nerve*. Examiner No. 1 then at once repudiated having called this the artery, which, he affirmed, was another adjacent structure. Proceeding, therefore, to raise it and cut it through, he exhibited it in commencing triumph, which quickly collapsed as *another nerve* appeared in section. Curiously enough, tea was forthcoming soon after for this particular candidate.

PENETRATION OF VERTEBRAL CANAL BY A HAIR-PIN, CAUSING TRAUMATIC MENINGITIS.—A young girl, in taking off her hat, forced a hair-pin into her neck, which apparently wounded the spinal cord, as there was, at once, momentary motor paralysis of the side opposite to the injury; but sensory troubles of the same side, continuing for five days; loss of consciousness, vomiting, vertigo; marked pains and stiffness of the nucha up to the third day. Such were the symptoms upon which was based a diagnosis of traumatic spinal meningitis by Dr. Viry, who reports the case in the *J. de Med. et de Chir.* A month afterward, a complete cure had followed.—*Rév. de Ther.*



THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.—At the annual meeting of this association at Selma, Ala., April 9, 1884, Dr. W. O. Baldwin, of Montgomery, Ala., introduced the following resolutions, which were unanimously adopted:

*Resolved: First.*—That the members of the Medical Association of the State of Alabama have watched with deep interest the progress of the struggle which for the past two years has been going on in the New York State Medical Society, between the advocates of the ancient and established ethics of the medical profession as embodied in the Code of Ethics of the American Medical Association, and heretofore recognized and observed by all physicians of reputable standing in all the countries of the civilized world on the one hand, and on the other hand the advocates of the so-called "New Code," or New York Code, which in effect proposes to degrade the medical profession by opening the way for the professional association with irregulars and charlatans.

*Resolved: Second.*—That all hope of the prevalence of wise and conservative counsels in the New York State Medical Society having been dissipated by its action at its recent session in Albany, no honorable course was left for the adherents of the established ethics except that which they have chosen to pursue, namely, to separate themselves from the demoralizing movement which they were unable to control, and to organize themselves into a new association for the maintenance of the honor and dignity of the profession in this State.

*Resolved: Third.*—That in doing this these men, Flint, Sr. and Flint, Jr., Gouley, Didama, Squibb, Rochester, Sayre, Fox and their associates, have earned for themselves the thanks of the medical profession of the whole country, and we extend to them our hearty congratulations and fraternal good wishes.

*Resolved: Fourth.*—That, in order to signalize still further our appreciation of their recent action, a copy of these resolutions, with the greetings of this association, be forwarded by our President to Dr. H. D. Didama, of Syracuse, the President-elect of the New York State Medical Association, wishing them prosperous fortunes and abundant success in the further development and fruition of their noble work.

*Resolved: Fifth.*—That a copy of these proceedings be also forwarded to the *Medical News* and to GAILLARD'S MEDICAL JOURNAL, with a request that they be published.

NOTE.—These resolutions were received too late for insertion in the May issue of this JOURNAL.—ED.

STATEN ISLAND DOCTORS.—The Richmond County Medical Society has called a special meeting to act upon a resolution to the effect that any member of the society shall be prohibited from attending any person who is indebted to any other member of the society when such member shall have received notice of such person's indebtedness to a fellow-member, unless the case be accompanied by a receipted bill or permit for attendance from the protesting physician, the cash in hand, or an order from a superintendent of the poor or a justice of the peace or other authority competent to make the order collectible. Penalties are prescribed for those who attend the people thus put on the doctors' black list. The physicians of Staten Island have signed a remonstrance against the action of the telephone company that recently bought out the telephone system on Staten Island, because the company has issued orders that hereafter no person can use the telephone of a subscriber to call a doctor, however urgent the case may be, without first paying a toll of 15 cents. As most of the doctors have telephones to facilitate quick communication with patients, they express indignation at the new plan.

## MEDICAL NEWS.

**RABIES.**—M. Pasteur and his collaborators have announced to the French Academy of Sciences the fact that by inoculation they can render all dogs absolutely proof against the effects of rabies, in whatever way or quantity the virus may be administered.

**DR. A. RANDOLPH MOTT**, resident physician at the Riverside Hospital, was attacked by typhus fever, which he contracted in attending to his duties some weeks ago, and died May 6. He was 26 years old, and was born at Leesburg, Va., where his father, an eminent physician, resides. Dr. Mott was graduated from the University of Virginia in 1878, and came to this city, where he was appointed a physician without salary at the workhouse. From there he went to the Randall's Island Infant Hospital and Hart's Island Hospital. In 1881 he went to the Riverside Hospital as assistant to Dr. Chapin. He was lecturer on gynæcology at the Polyclinic Institute.

**MAN**, according to Mr. W. J. Knowles, must have taken up his residence in Ireland at a very early stage in the history of the world. Mr. Knowles has discovered flints at Lane and other places on the northeast coast of that country, some of which, he believes, show evident traces of human workmanship. One large chipped implement was found in what appeared to be true undisturbed boulder clay. There are other tools which Mr. Knowles has in his possession which seem to indicate that man has lived in Ireland long before the paleolithic period—during, in fact, the glacial epoch.

**FRAUDULENT TEA.**—Under the excellent law that was enacted by the Forty-seventh Congress, an expert inspector at this port has seized and condemned, in the last twelve months, 650,000 pounds of unwholesome and adulterated teas. The names of the importers to whom these teas were consigned are given to the public.

**PROFESSOR J. B. DUMAS.**—French exchanges announce that the death of this eminent chemist took place on the 11th of April, in the eighty-fourth year of his age.

**A PRIVATE HOSPITAL FOR DISEASES OF THE EYE.**—Dr. Thomas R. Pooley opened his private hospital at No. 107 Madison avenue in May. Complete preparations are made for the proper nursing and care of patients.

**THE Medical Society of the State of Pennsylvania** met at Philadelphia, May 14th, 15th and 16th, 1884. Sessions from 10 A. M. to 5 P. M., with intermission 1 P. M. to 2 P. M.

**DAVID T. TAYLOR**, M.D., of Washington, North Carolina, died on the 25th of March, 1884.

**THE YELLOW-FEVER QUARANTINE.**—The quarantine service has already been established at Ship Island and at Sapelo Sound, Ga., and it is announced that it will be put in operation at Cape Charles on the 15th June.

DR. MARIE HASLEP and Dr. Sarah Stockton have been elected by the Marion County (Ind.) Medical Society delegates to the Indiana State Medical Society.

A NEW JOURNAL OF OPHTHALMOLOGY.—The first number of the *American Journal of Ophthalmology*, dated April 15, 1884, is issued. It is published in St. Louis, and edited by Dr. Adolf Alt, of that city, in conjunction with an able corps of collaborators. The journal is to be issued in monthly numbers of thirty-two pages each.

THE N. Y. County Medical Society has refused to endorse the bill introduced into the Legislature of New York to establish a College of Midwifery.

DR. R. H. GALE died at New Liberty, Ky., on Friday, May 2d. The cause of his death was cancer of the stomach, a disease from which he had been suffering for several months. Dr. Gale was born in Owen County, Ky., in 1828.

THE *Quinologist* was discontinued with the February number.

RESIGNATIONS.—Prof. Alfred Stillé has resigned the chair of *Materia Medica and Therapeutics* in the University of Pennsylvania, after twenty years' incumbency. He was for several years one of the editorial corps of this JOURNAL.

THE *Medical Index* is the successor to the *Kansas and Missouri Valley Index* and the *New Medical Era and Sanitarian*. It is a monthly, two dollars per year. It is published in Kansas City, is well edited and neatly printed.

THE first Londoner, according to the *Builder*, who introduced conduit water into his premises was a tradesman of Fleet street. This is how a record of 1478 sets forth the occurrence: "A wex chandler in Fleet street had by crafte perced a pipe of the condit withynne the ground and so conveied the water into his selar; wherefore he was judged to ride through the citie with a condit uppon his hedde," the city crier meanwhile preceding the criminal and proclaiming his offense.

DR. JAMES C. GREEN died at his home in Danville, Va., on April 1, 1884, after being confined to the house by serious illness for some time. By his death the profession sustains a great loss.

DR. JOHN M. CUYLER, OF THE ARMY.—Surgeon and Brevet Brigadier-General Cuyler died at his home, in Morristown, N. J., on Saturday, April 26th. He entered the army as an assistant surgeon in 1834.

DR. HENRY LATHAM, of Lynchburg, Va., died on April 12th, 1884, after having been confined to the house for several months from the effects of a paralytic stroke. He had been in active practice about forty years, and was nearly or quite seventy-seven years of age at the time of his death. He had received every number of this JOURNAL [from January, 1866.

THE "PLANET."—This monthly journal has been discontinued.

THE new laboratory building for the Bellevue Hospital Medical College will be begun on the 7th of June, and it is expected that it will be completed late in the autumn. It is to consist of a front and rear section, connected with each other by a corridor. The front section will be devoted to laboratories, while the rear section will contain a large auditorium, to seat four hundred students, together with the museum and the library.

THE corner-stone of the New York Cancer Hospital was laid on the 17th of May by the Rev. William F. Morgan, D.D., Rector of St. Thomas' Church. An address was delivered by Dr. William H. Draper, and Mr. John E. Parsons, President of the Board of Trustees, announced that the building about to be erected was the absolute gift of Mr. John Jacob Astor. He said that the fund of the institution now amounted altogether to \$360,000, and that it owned twelve city lots of land in addition. The building, which is to be of pressed Philadelphia brick, will have a frontage of 120 feet on Eight avenue, and will extend 60 feet on One Hundred and Sixth street. It will be after the French renaissance style of architecture, and will consist of three circular pavilions connected by a central building.

THE seventy-seventh annual commencement of the College of Physicians and Surgeons took place at Steinway Hall on May 13th, when Dr. John C. Dalton, President of the College, conferred the degree of M.D. on 105 graduates. Brief addresses were made by Dr. Dalton and President Barnard, of Columbia College, and the principal address to the class was delivered by the Rev. Howard Crosby, D.D.

THE initial number of the *American Meteorological Journal*, published at Detroit, Mich., is at hand. This is the first American journal to be devoted to this subject. The first number contains several original communications, besides notes and translations.

DR. W. B. BROOKS, of Fort Worth, the junior editor of the *Texas Courier-Record of Medicine*, was married on the 21st of April to Miss Fannie L. Wilson, of the same city, *sic itur ad astra*.

A SUMMER HOSPITAL for children, designed to accommodate about thirty patients, is in contemplation by the people of Rochester, to be built on the shore of Lake Ontario.

THE HARVARD MEDICAL SCHOOL.—Dr. Robert T. Edes has been appointed professor of clinical medicine, to succeed the late Dr. Calvin Ellis.

THE *Archives of Pediatrics*, heretofore published by its editor, Dr. W. P. Watson, of Jersey City, is to be issued in the future from the New York office of Messrs. J. E. Potter & Co., of Philadelphia.

THE ALLIGATOR BOY.—The last number of the *Journal of Cutaneous and Venereal Diseases* gives a lithographic picture of a case of *ichthyosis* in the person of a boy who has been exhibited as the alligator boy. Under the treatment of Dr. George H. Fox there was considerable improvement, cod-liver oil being applied externally, and iodide of iron internally.

MANITOBA MEDICAL COLLEGE.—The first session of the Manitoba Medical College was brought to a close by a grand dinner being given at the Douglass House, Winnipeg. About sixty invitations were issued, and all the leading physicians in the city besides gentlemen connected with the educational interests of Manitoba were present. During the past session eighteen students have enrolled their names on the college register, and a number of applications of second year men from Ann Arbor Medical School, Mich., also from the Toronto schools of medicine have been received, and there is every prospect of a very large attendance next session!

MENTHOL POINTS.—This new remedy for neuralgia, etc., has been introduced to the medical profession. Menthol, the crystalized camphor of Japanese oil of peppermint, is applied locally, and for its more convenient use is formed into small cone-shaped pencils mounted in box-wood handles, similar to nitrate of silver pencils. The mode of application is to gently rub the point over the painful part, when a slight prickling impression of burning will be produced, followed in the course of one or two minutes by a pleasantly cool sensation, and an entire alleviation of the pain.

A CASE is reported in which the Supreme Court held that when a doctor sold out his practice "in a city and its vicinity" that this space was included within ten miles of the city, or its corporate limits.

THE MORAL SHOW.—Speaking of the return of Gen. Henry S. Taylor, who has been visiting the insane asylums of Ohio, in company with Superintendent Gundry, of a Maryland asylum, the *Baltimore American* says that he found in the idiotic department of one of them the two children who for many years traveled with Barnum's circus as the great and *only genuine Aztec children*. He was told that the pseudo Aztecs were idiotic, who, before Barnum got them, were in the idiotic department of one of the Ohio asylums, and after they no longer proved a curiosity were returned.

MODERN PURITANS.—The divorce scandals in Rhode Island have occasioned the introduction in the Legislature of two proposed amendments to the divorce law of the State. One provides that the petitioner shall be a regularly domiciled inhabitant of Rhode Island, and must have resided at least two years in the Commonwealth prior to the filing of the petition, and the other stipulates that the Justices of the Supreme Court before whom the petitions are heard may compel testimony, of an oral character, to the effect that the party did not come to Rhode Island for the purpose of obtaining a divorce, and if such evidence be not forthcoming when required the petition cannot be granted.

MR. J. L. WOODS has given \$150,000 for the erection of a new building for the old Cleveland Medical Society, which now goes under the name of the Medical Department of the Western Reserve University. The new building will go up on the site of the old one, at St. Clair and Erie streets. It will be four stories high, and measure 90 by 145 feet. There was much guessing as to the donor, some averring that the money was left by the late H. B. Hurlbut, while others credited it to Joseph Perkins. A sufficient endowment to keep the college running accompanies the gift.

DR. S. D. GROSS.—After the performance of a careful post-mortem examination, the remains of this distinguished physician were cremated at Washington, Pa., where the body of his wife was cremated a year ago.

THE TRICENTENARY OF THE EDINBURGH UNIVERSITY.—The following are among those who, April 15th, received the honorary degree of LL.D.: Dr. Fordyce Barker, of New York; Dr. J. S. Billings, United States Army; Sir William Bowman, Bart.; Professor Chauveau, Lyons; Sir Andrew Clark, Bart.; Professor Erichsen; Professor H. Von Helmholtz, Berlin; Sir William Jenner, Bart.; Dr. Thomas Keith; Dr. H. Maudsley; Sir James Paget, Bart.; Prof. Virchow, Berlin.

POISON.—The chemist of the Sanitary Bureau has examined several hundred specimens of mustard, collected under the direction of Dr. Edson, and has submitted the results of his examination to the Board of Health. Three specimens contained flour and were colored by the addition of naphthol yellow. Ten other specimens contained flour or *terra alba*, and in some cases there was only 35 per cent. of mustard. Naphthol yellow is an irritant poison.

DR. SANFORD B. HUNT.—Sanford B. Hunt, M.D., editor of the Newark, N.J. *Advertiser*, died recently at his residence at Irvington, Essex County, after an illness of several weeks. Dr. Hunt was born Dec. 25, 1825, at Ithaca, N. Y., and was graduated from Willoughby College, Ohio, when 20 years of age. He subsequently removed to Buffalo, and was made Professor of Anatomy in the Buffalo Medical College, besides holding editorial positions on several local papers. At the breaking out of the war he volunteered his services, and was made Surgeon at Fortress Monroe. Afterwards he was attached to the medical staffs of various divisions, and was then made Surgeon-in-Chief of the Army of the Southwest, with head-quarters at New Orleans, where he remained until the close of the war. In 1866 he resumed editorial charge of the Newark *Advertiser*, where he remained until his death. He leaves a widow and one son.

MISS CLARA BURTON'S WORK.—NEW ORLEANS, La., April 18.—Miss Clara Burton, President of the Red Cross Society of America, arrived in this city this evening on the steamer Mattie Belle. She has been distributing food and clothing to the destitute all along the river above, running up bayous, side streams, and into all out-of-the-way places. She is considerably sunburnt, very much worked down by the severe strain upon her, but she is in excellent health and spirits. The people of this city will tender her a reception to-morrow.

AT the Fifty-ninth Commencement of the Jefferson Medical College, held March 29, the degree of M.D. was conferred upon 215 students.

MR. W. H. MASSEY, of the Society of Telegraph Engineers, London, has strongly urged the introduction of a small engine and dynamo-electric machine on each locomotive, in order to supply incandescent lamps, by means of which he maintains, railroad carriages can be lighted "better and cheaper" than by gas-jets, and make the cars more pleasant and wholesome.

ACCORDING to Dr. Billings, of 1,000,000 colored infants born (in Baltimore) one half will have perished before attaining the age of two years.

DR. OTT has learned that the rattlesnake's tail makes sixty vibrations per second. It is a shocking waste of energy on the part of the snake, as ten vibrations would scare a man just as much.—*Boston Post*.

MODERN PURITANISM.—There are 177 applications for divorce to come before the May term of the Massachusetts Supreme Judicial Court in Boston, and all but 32 of them are uncontested.

THE TEXAS STATE MEDICAL ASSOCIATION at its meeting April 24, at Belton, elected Dr. H. C. Ghent president. An excellent selection.

U. S. ARMY MEDICAL OFFICERS.—The bill defining the titles and duties of army medical officers of the higher ranks has passed the Senate. Surgeons with the rank of Colonel are to be styled Assistant Surgeons-General, and those with the rank of Lieutenant-Colonel, Deputy Surgeons-General.

THE MARYLAND BOARD OF HEALTH.—The Governor of Maryland has expressed the opinion to the Legislature that the State Board of Health has not produced results worth the money expended on it, suggesting that it might as well be done away with!

OBITUARY.—JAMES GETTYS M'GREADY RAMSEY, M.D.—The venerable Dr. J. G. M. Ramsey, President of the Tennessee State Historical Society, and author of "The Annals of Tennessee," who died peacefully at his home, near Knoxville, Friday night, April 11, was in his eighty-eighth year. He was eminent in letters and distinguished as an historian.

THE NEW YORK CANCER HOSPITAL is reported to have received a gift of \$200,000 from Mr. John Jacob Astor, together with a number of smaller sums from others. Land has been bought for the purposes of the hospital in the vicinity of the Central Park, on Eighth avenue, and work will soon be begun on the buildings.

SOUTHERN ASIA, the original home of cremation, is also the region where it is celebrated with the greatest pomp and splendor. In Siam, when any famous man is cremated, a magnificently decorated building is erected specially for the occasion, and vast sums are expended in making the whole spectacle as gorgeous as possible. The ceremonies observed at the cremation of the late Regent of Siam may serve as a fair specimen of those customary on such occasions. Immediately upon his death, in March, 1883, his remains were inclosed in a vast urn of costly material, several yards in height, which was placed in a large room opening upon the courtyard of his palace, which stands on a creek flowing into the river that traverses the capital. Bands of native priests, relieving each other in turn, kept repeating prayers night and day in the death-chamber, around which were displayed all the orders and decorations worn by the dead man in his lifetime. Twelve months after his death the urn and its contents were carried in state to a kind of temple erected for the purpose, where the cremation was performed in the presence of thousands of spectators, including the King himself and his entire Court.

DIED, at Fort Madison, Iowa, at 3 P.M., Wednesday, April 23, Ella, wife of Dr. F. C. Roberts, aged 24 years, 3 months and 20 days.

IN MEMORIAM.—Dr. Hillory Ryan was born in the State of Alabama, December 11th, 1822; died in Colorado City, Texas, May 1884.

## EDITORIALS.

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THE DISTINGUISHED DEAD.—In the past month two of the most distinguished of the medical profession in this country have been carried to their graves—Drs. Willard Parker and S. D. Gross. They had each passed beyond the period allotted to man—threescore years and ten; each had done a great work in life, and good work in the few last months of existence; each had distinguished himself in the same field, that of surgery, and each had been permitted to retain to the last his mental health and vigor. Each had commenced life in an obscure and humble field; each had to struggle and work for the acquirement of a respectable education, and each, gradually overcoming the overwhelming disadvantages of poverty and inadequate educational facilities, had arisen to a position of eminence and distinction. What, too, was remarkable is, that it could not be claimed for either of these heroes in the medical field that he had genius or talent. With not more than an average intellectual strength, the victories of each had been won by untiring application and ceaseless labor. There was not a vestige of originality in the methods or thoughts of either, and never any of that brightness of conception or brilliancy of execution to which mankind renders such prompt allegiance. Never to either was given that involuntary homage which is tendered to the acknowledged and indisputable leader. All that was won, and that was so well won, was secured by ceaseless industry, energy and fidelity.

At the first analyses of such lives, one is apt to involuntarily experience the chill of disappointment, that so much was done without the possession of much, and that behind all that was so beautiful and admirable there was none of that power which men call greatness. And yet there is, on this very account, more to give to true thinkers contentment and satisfaction. It shows what magnificent results can be achieved with powers possessed by the many and not by the few. Did the lessons of such lives teach the profession that great reputation can only be achieved by the possession of great powers, most men would shrink back with discouragement from the unequal struggle; but when, on the contrary, such lives show what exalted triumphs can be achieved by the possession of *only* average strength, all must feel strengthened and comforted in the daily struggle for efficiency and usefulness. Such lives and such deaths, such powers and such achievements, bring to mankind more beneficent and productive lessons than can possibly be acquired from the records of brilliant genius and overwhelming talent.

Longfellow has said that

“Lives of great men all remind us  
 We can make our lives sublime,  
 And, departing, leave behind us  
 Footprints on the sands of time.”

This, however, is illogical and untrue; but the lives of these professional brethren teach us a really comforting lesson—that without being great, or with-



out having achieved greatness, the record left behind may be such as to stimulate all to the exercise of patient labor and ceaseless industry.

It is satisfactory, indeed, to know that each of these distinguished men looked with calmness and courage upon his approaching end, and that each had made with care and quietness every preparation for the final summons. The close of such lives conveys to every one the beneficent instruction to be ready for the last scene. It says to each reader : -

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

THE AMERICAN MEDICAL ASSOCIATION.—The meeting at Washington was of average strength and interest. The arrangements were excellent, and are very creditable to the committee. The scientific value of the meeting was almost inappreciable ; the scientific work done very insignificant.

The President's address was temperate and useful. His defence of the status of the American physician was effective and appropriate, for there are constantly to be seen foolish birds befouling the home nest. His defence of the colleges was not duly appreciated, though he condemned what is condemnable, and gave due credit for all that is creditable. His calling attention to the fact that home preceptors and not the colleges are to be blamed for the defective grade of students was timely and just. In fact, every reader should remember this fact ; it is a great and important one. As a rule, preceptors are idle, indolent, lazy and worthless. They give no time and no labor to their office students, and then blame the colleges for bad results. No mill, however perfect, could turn out good material from bad material sent to it. It is the profession, the preceptors, who most need censure and reformation in this connection. If they will send better students, the colleges will return them as accomplished and useful physicians.

The President's comments in regard to the time spent upon Greek and Latin are unexpected, injudicious and unjust. In the profession of medicine a student may graduate without knowing the Greek and Latin languages ; but to know his profession well, like knowing his own language well, a knowledge of these languages is indispensable. There is no study more important, more remunerative, or more useful.

The President's definition of “an irregular practitioner” is excellent, and should be remembered by every one ; every society should incorporate it amongst its records. This definition is as follows : “The voluntary assumption of a distinctive name, and the announcement to the Public that his medical practice is

based upon a distinctive system of medicine, opposed to legitimate medicine, constitutes an irregular practitioner, and one with whom consultation cannot be held." The address is useful and worthy of its author.

It is to be thankfully remembered that the Association paid such just and distinctive honors to Dr. Gross. It is more than marvelous, however, that it did positively nothing to honor the memory of Dr. J. Marion Sims. One would have said that such a blunder was impossible.

The officers elected were all worthy of the honors paid to them. Every one must rejoice over the election of Dr. H. F. Campbell to the presidency.

The motion of Dr. Cochrane, that a committee should not nominate its own members for office (though forbidden in parliamentary Bodies), was much needed, and is just and proper.

The papers read were not as numerous as usual. Those read by title only were numerous. The debates as published do not require notice; they were, however, far below mediocrity. The pet theory of the editor of the *Association Journal* to improve this by more foreign correspondents is a bad one. Every journal office in this country receives its foreign journals two or three times a week, or has a foreign mail delivered every two or three days. It receives thus prompt and comprehensive information of all that is being done in foreign capitals. His device is expensive and useless. It is one that afflicts every young journal. The foreign journals are, as an almost invariable rule, ahead of the foreign correspondents; for these foreign correspondents, the best of them, make up their letters from the foreign journals then *en route* West. Such correspondence is, as a rule, "flat stale, and unprofitable," unless, as is done by the Paris correspondent of this JOURNAL, facts and items not found in foreign journals are sent for publication.

The Washington meeting was fair. The next meeting at New Orleans will be of great interest, for it will be largely composed of members who, since "the rebellion" (as partisan history calls it), have been unable to journey to the far countries. May this meeting be the equal, in interest and value, of the last meeting there, in 1869.

THE "JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—At the recent meeting of the Association in Washington, Dr. Toner, Chairman of the Board of Trustees of the *Journal*, made a report. The report showed a surplus of \$500 after the payment of all expenses. Before action was taken on this report, Dr. Packard, one of the *Journal* trustees, asked leave to present a minority report. This was read. It expressed dissatisfaction with the management of the official paper, and suggested that a trained and paid corps of editors be employed, and that the publication office be removed to Washington, Philadelphia or New York. Upon the question of laying on the table the minority report, a *viva voce* vote was not deemed satisfactory. When the vote was taken by yeas and nays, of 265 votes cast, 74 were cast against the present editorial management. This was, in a parliamentary or technical sense, a victory for the present management; but such a victory is ruinous to all concerned. It was in reality an overwhelming defeat, for it showed that nearly thirty per cent. of the delegates censured the

editorial management of the *Association Journal*, and had lost all confidence in it. As representing nearly one-third of the physicians of this country, this vote is disastrous indeed, for it foreshadows, under the present management, the ruin of the journal. A great work of this kind cannot succeed when nearly thirty per cent. of those who ought to support it, and would support it, under other circumstances, not only refuse their aid, but publicly record their official censure.

It is true that the editor very properly and naturally tendered his resignation, but it is almost passing belief that those to whom it was addressed refused to receive it, and that he is to remain in charge for another year, going out of office, it is promised, at that time!

Such a course on the part of the managers or trustees is mere childishness—it is even worse—it is recklessness. It is equivalent to the folly of those who, responsible for a leaking ship, threatened with destruction and distrusted by one-third of its owners, vote down the minority and send out such a vessel for a whole year's cruise.

It is certainly proper, when nearly one-third of the owners of a piece of property condemn publicly and officially the management of it, that those responsible for the management should be removed, or at least be suffered to withdraw. As to kindness and courtesy, etc., these have nothing whatever to do with this case. It is a simple piece of business—some one is to be paid by the owners of property to manage this property. He is officially declared by one-third of the owners to be incompetent; and instead of being withdrawn, the majority vote down one-third of the joint owners, and retain the incompetent manager.

Those who voted against the present editor of the *Association Journal* have as much kindly feeling and respect for him as do those who voted for him, but with all of such due respect and kindness, they thought and said that he was unfit for his position. He has been kept in office by the force of a majority.

It is certainly marvelous that, when condemned by the representatives of one-third of the supporters of the *Journal*, the present editor could be induced to retain his position, not for a year, but for an hour!

This JOURNAL has expressed its respect for that editor often and publicly, but it frankly condemns his past year's work, just as it frankly predicted and foreshadowed his unfitness for the position to which the *Journal* Committee (of which he was most singularly the chairman) elected him.

The truth is, that the trustees of the *Journal* ought to be men who have some little familiarity with the work over which they are placed in trust; but the fact is, that the past and present trustees, with some few exceptions, know about as much of the management of a journal as a Hottentot does of astronomy; not even as much; for these swarthy worthies at least know the variations of the chief of the solar system, and know when to prudently retire into a safe obscurity: a very proper knowledge. It is to be hoped that the appointments as trustees of the *Association Journal* will be, as a rule, confined to those who have at least some little knowledge of the matters entrusted to their care. If one were to see a blind pilot taking charge of a ship, he surely could not be more astounded or amused than to see with what quietness, and even assurance, gentlemen who know nothing whatever of journalism take in trust the only journal property of the

physicians of this country. What they have done with it is now history; what they will do with it is easy prophecy, unless some marvelous incident, some miracle, preserves the property confided to them.

Dr. Packard is entitled to the warm thanks of his brethren for the very unenviable but manly position which he has taken. If men had, as a rule, the courage to publicly express their convictions, and to act in accordance with them, he would have had a stronger support. He, at least, did his duty; though, like "the old guard," who did the same, he was "slaughtered at Waterloo." This *Journal* trustee had, however, a large following; for to elicit 74 votes of censure, in 265 votes cast, was at least a moral, if not a parliamentary victory.

THE "JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION."—It has been claimed by some that the criticisms of this JOURNAL upon the *Journal of the Association* were too severe. The following printed letters have been sent to this office. They were sent with this note, from a prominent physician:

DEAR DR. GAILLARD: If your just words expressed in the JOURNAL several months ago had been taken up by the medical press, this letter from Dr. Packard would have been unnecessary. Surely, prompt action will be taken at Washington to save the Association from continued shame.

1924 SPRUCE ST., PHILADELPHIA, April 2, 1884.

DEAR SIR: Your attention is respectfully requested to the following copy of a letter recently addressed by me to the President of the Board of Trustees of the *Journal of the American Medical Association*, which will probably explain itself. I think it of importance that the views therein contained should be considered prior to the coming meeting of the Association, and if there is any obscurity in them, or if you are in doubt about the facts, please notify me, and I will give you further information.

Respectfully yours,

JOHN H. PACKARD.

PHILADELPHIA, Feb., 1884.

J. M. TONER, M.D.,

DEAR SIR: Your favor of the 6th inst. came duly to hand, but I have delayed answering it because the matters concerned seemed to me to demand very careful consideration. This I have given them, and desire to lay my views before you, with the earnest request that you will not only give them your own attention, but submit them at the earliest opportunity to the other trustees for their judgment. Should it inconvenience you to have copies prepared, pray notify me, and I will have it done.

I feel constrained to enter a protest against the way in which the publication of the *Journal* is being carried on.

In the first place, I do not think we have the right to presume upon the indulgence of the editor as to the non-payment of his salary. We, as trustees, are placing the Association in a position of obligation to him which is in every way inexpedient. Should he die, his heirs would have a valid claim for the amount due him, and would no doubt present and urge it. It is unbusinesslike and irregular that the Association should be in debt, with or without the consent of the creditor, unless there is provision for his payment on demand. The

Association is thus actually in his power and under his control, which is all wrong, theoretically and practically. [Salary paid.—ED.]

Secondly, if I rightly understand the accounts as submitted, the printing for the first quarter cost \$3,152.98, about \$48 per number *above* the estimate, while for the second quarter, according to your letter of the 6th February, the printing cost \$2,348.24, or something less than \$14 *below* the estimate. Perhaps the smaller amount paid may account for the excessively careless work especially noticeable in the numbers of the second quarter. I was convinced, at the time the estimates were presented to the Board of Trustees, and accepted by them, that they were too low, that the work could not be well done for the money, and it has not been well done.

Thirdly, contributors are not paid, nor is there any provision for paying them. All experience goes to show that without this no journal can be conducted on a sound basis.

Fourthly, no arrangement has been made, or at least there is no evidence of any such arrangement, for the systematic securing of a larger number of suitable advertisements. Here, again, experience shows that this must be one of the strong financial points of any such enterprise.

As to the literary and scientific management of the *Journal*, I regret to have to say it, but I did not think such work could be so badly done. There is no uniformity in the arrangement of the matter. It is full of typographical errors, and in several of the numbers the foot-notes are wholly misplaced, so as to produce utter confusion. One article, with a cut, published in the number for October 6, appears again in that for November 10. The *Journal* comes to me very irregularly, and scarcely a single number sent to me has been either whole or clean.

I cannot admit that the *Journal* has in any way approached near the standard of what it should be as the organ of the American Medical Association, or that it either has taken, or as at present conducted can take, such a position among medical journals as belongs to such an organ. I have not seen in it one editorial article of wide scope, calculated to advance the interests of the Association or of the profession at large, or anything to lead professional opinion upon any important question. If it has contained such material, it would give me pleasure to have it pointed out to me.

I have made these comments in no spirit of hostility to the *Journal* or to its editor, but from an earnest sense of my duty to the Association as one of its trustees. I have simply expressed my deliberate judgment, believing it to be correct and knowing it to be sincere. The grounds upon which it is based could readily be pointed out, did time and space permit, and I am ready to defend it whenever opportunity may offer. I regret most truly that I am compelled to find fault when I would gladly praise; but the real and complete success of this enterprise is too important an object to justify anything but candor and plain speaking.

Your obedient servant,

JOHN H. PACKARD.

THE LOUISVILLE KY., MEDICAL COLLEGE.—In the May number of this JOURNAL it was stated, that it was exceedingly improbable that the faculty of this college had during the past summer written the letters of solicitation to students, publicly (in many journals) attributed to it; and that the faculty "needed no defence." Since that article was written, the April number of the *Medical Herald*, of Louisville, Ky., has been received, and it contains "a supplement" written by Dr. E. Miller, Secretary of the Faculty and Professor of Surgery. Dr Miller says: "For the last session we did write to a number of

students, whose names had been furnished us by their friends, offering to take them at reduced rates, as we had a perfect right to do, as is done by every college in the land, and for the following good and sufficient reasons." The chief reason was that the Medical Department of the University of Louisville was, at the same time, endeavoring to get the students of this college away, by offering to take them for only the matriculation and graduation fees, "and did take some of them for nothing."

To those who know nothing of the polemics of medical college faculty life, this will not prove to be a good reason; but by others, who have an accurate conception of the trials and exasperations of such a life, it will be remembered that the error was not committed without great temptation; and that there was about it that human element which is so often found in the old Adam. The fact is that both institutions were wrong—equally wrong in this matter; and no one can justly censure one, without equally censuring the other: a course of action which it is hoped that the press and the profession will remember. So far, such has not been the case, but that it will be, none who know the justice of the press and of the profession can doubt.

That one college should be made the subject and object of bitter vituperation, however, because of an error committed under the influence of vicious and unfair partisan and local competition, is ungenerous and unjust; and it is believed that the press and the profession will take this view of the matter. It is the true view, and one which all must take who remember how easy it is to err under the aggravating circumstances described.

Dr. Miller furnishes an interesting and suggestive appendix to his supplement. It is in regard to the Louisville (Ky.) City Hospital.

In the last thirteen years this institution has accorded 54 positions to the medical college graduates of that city. These positions (of resident physicians) have been won by competitive public examinations; the Louisville Medical College graduates have won 28 of the 54 positions; the hospital college 22; and the Medical Department of the University of Louisville 4! The Louisville Medical College, as one of three competing colleges, has therefore won 52 per cent. of the positions offered—these figures are official. Dr. Miller says: "The resident graduates of the City Hospital are appointed from the various schools of the city, according to their standing in a competitive examination before a Board of Examiners appointed by the Charity Commissioners. The questions asked are written by various physicians and surgeons in different parts of the country; they are sent, sealed, to the mayor of the city, and are only opened on the day of examination. Each student is furnished with a copy. All of them are kept in the same room, under the supervision of a Commissioner, and the written answers are signed with a fictitious name. The papers are then opened before the Board of Examiners and their respective accuracy voted on in open ballot."

It is thus evident that, though the Faculty of the Louisville Medical College has been betrayed into writing such letters as the profession and the sober judgment of the Faculty cannot approve, this was done under the great aggravation of a most censurable course on the part of a rival local institution; and it is equally evident, when the true test of didactic work and efficiency in colleges is

made, that the Louisville Medical College has, for fifteen years, outstripped all of the medical colleges in Kentucky.

BEER.—The belief that beer is a healthful drink is constantly urged by manufacturers and lovers of this beverage, and physicians spread this delusion in many ways. It is not often that an unprejudiced person makes a careful study of the subject to see whether beer is really wholesome and life-giving or not, and so it is a pleasure to hear from one who has done so. Colonel Green, President of the Connecticut Mutual Life Insurance Company, says: "In one of the largest cities, containing a great population of beer drinkers, I had occasion to note the deaths among a large group of persons whose habits in their own eyes and in those of their friends and physicians were temperate; but they were habitual users of beer. When the observation began they were, upon the average, something under middle age, and they were, of course, selected lives. For two or three years there was nothing very remarkable to be noted among this group. Presently death began to strike it; and until it had dwindled to a fraction of its original proportions, the mortality in it was astounding in extent, and still more remarkable in the manifest identity of cause and mode. There was no mistaking it; the history was almost invariable; robust, apparent health, full muscles, a fair outside, increasing weight, florid faces; then a touch of cold, or a sniff of malaria, and instantly some acute disease with, almost invariably, typhoid symptoms, was in violent action, and ten days or less ended it. It was as if the system had been kept fair outside, while at the first touch of disease there was utter collapse; every fibre was poisoned and weak. And this, in its main features, varying, of course, in degree, has been my observation in beer-drinking everywhere. It is peculiarly deceptive at first; it is thoroughly destructive at the last." That the habitual use of beer, now so general, produces excessive and chronic congestion of the kidneys, leading gradually to the establishment of disease of these organs, there can be but little doubt. The disease produced is usually some form of Bright's disease.

Most physicians of fifty years of age, or more, are familiar with the fact that a generation ago Bright's disease was rare; now it is one of the most familiar causes of death. Every day's paper contains the names of its victims. The reason for this is manifest; it is the pernicious and foolish habit of daily indulging in beer-drinking.

BACTERIA.—The *Frankfurter Zeitung* states Dr. Reinsch has found, as the result of a long series of minute investigations, that the surfaces of fifty-pfennig pieces (sixpences) which have been long in circulation are the home and feeding-ground of a minute kind of bacteria and vegetable fungus. An extended series of observations showed that this is the case with the small coins of all nations, the thin incrustation of organic matter deposited upon their surfaces in the course of long circulation rendering them very suitable for this parasitical settlement. Dr. Reinsch scraped off some of these incrustations and with a small scalpel divided them into fragments, which were subsequently dissolved in distilled water. The employment of lenses of very high power showed the

bacteria and fungi distinctly. This is a matter of no little importance from a hygienic point of view. It has now been conclusively established that bacteria form the chief agency in the propagation of epidemic disease. The revelation that they have a chosen domicile in the most widely-circulating medium which probably exists in the world presents a new factor in the spread of infectious disease. There is, however, a remedy. Where coins have been in circulation for a number of years, if they are washed in a boiling weak solution of caustic potash they will be cleansed from their organic incrustation, and so freed from the unwelcome guests which they harbored.

Subscribers who are in arrears should at once send on their poisoned gold pieces; the caustic potash will be applied at this office and without charge.

OLD AGE.—While Dr. Farr's description of the march through life of a million children may need to be somewhat modified in the light of more recent observations, it is still essentially correct: Of a million children born to-day, nearly 150,000 will die within a year; 53,000 in the second year; 28,900 in the third; and less than 4,000 in the thirteenth year. At the end of forty-five years one-half of the million will have died, and at the beginning of sixty years 370,000 will be living. This number will have fallen to 280,000 in ten years more, and at the end of fourscore years only 90,000 will be left. In five years more 52,000 of these will have succumbed, leaving 38,000, of which number 2,100 will still be living at ninety-five, 223 of whom will reach the even century, and of the million starting out to-day but one solitary pilgrim will be found at the end of 108 years. The average life of the million will, according to Dr. Farr, reach 40,588, or nearly 41 years. Later calculations show that improved sanitation has increased the average duration of life to 43.56 years.

VIRGINIA ASYLUM SUPERINTENDENTS.—“The mills of the gods grind slowly, but they grind very fine.” Two years ago the superintendents of these asylums were “turned out,” for political reasons solely, by a political party which, then unrespected, has since that time steadily deteriorated, and is now justly repudiated by the best men throughout the old Commonwealth. Recently, this party has been ousted from its strongholds, and, as one of the results, their asylums' superintendents have been sent adrift and proper men placed in power.

Dr. A. M. Fauntleroy has been reinstated as Superintendent of the Western, Va., Asylum, with Drs. William Hamilton and Edward C. Fisher as assistants. At the Central Asylum Dr. Randolph Barksdale has been restored as Superintendent, with Drs. R. G. Cabell and R. H. Jones assistant physicians. At the Eastern Asylum Dr. R. A. Wise has been removed and Dr. James D. Moncure made Superintendent, with Drs. John Clapton and A. Monteiro as assistants.

“PER OREM.”—We recently read in the *Journal of the American Medical Association* of administering medicine per orem, and indeed we have seen allusions frequently, in American writings, to this mode of medication. We have consulted latin dictionaries in vain for an explanation of the expression, which seems to be intended for latin. A school boy, it is true, might write orem as



the accusative of *os*, forgetting the gender of the word, and since physicians—and even editors of medical journals—are not all finished latin scholars, it is just possible that the schoolboy's error has found its way into current medical literature. It is time that a protest be made against so gross a barbarism. *Per os* is correct latin, and if we must use latin phrases, let us treat with due respect the grammatical rules of the classic tongue.—*Detroit Lancet*.

THE NEWSPAPER ADVERTISING OF SURGICAL OPERATIONS is likely to be followed by the advertising of obstetrical operations. A Philadelphia paper not long since gave more than a column to a description of a Porro-Muller operation. The name of the operator, his assistants and consultants are given, coupled with a glowing account of their learning and skill. In a late number of the *New Haven Register* (Conn.), for Sunday, more than a column was devoted to the details of a Cæsarian section. Here the operator and assistants were made to pose before the readers of the paper as veritable giants in the medical profession, the like of which had not previously appeared upon the earth. It appeared that in this case the woman had passed through the same operation sixteen years ago. All details were given.

THE Kentucky State Board of Health has had and is still having a very severe ordeal. It has been so abused and ridiculed by the medical and secular press of its own State as to render any but the pachydermatous miserable and unhappy; and now Governor Proctor Knott has placed the ultimate straw upon the camel's back. He has appointed two homœopaths to positions on the Board. The fact is, the Board has done nothing to secure the respect and confidence of the profession and the people; far less to evoke admiration or commendation. There is but one course left open to it, and that is graceful resignation and final retirement into the safe covert of private life. The experiment in that State has been an absolute failure.

THE PROBABILITY OF DYING.—Every doctor, in his own behalf and in behalf of his patients, is interested in this great question; he will, therefore, read the following with interest and profit. The feature of greatest general interest deduced by Professor Wittstein is the form to which he reduces the equation which represents the probability of dying. It is as follows:

$$W = a \frac{-(M-x)^n - 1}{m} + \frac{-(mx)^n}{m}$$

This is very satisfactory, and prognosis is, in future, robbed of all uncertainty.

VICK'S FLORAL GUIDE is better than ever; the cover, with its delicately-tinted background and its gracefully arranged flowers, would entitle it to a permanent place in every home. The book contains three colored plates, is full of illustrations, printed on the best paper, and is filled with just such information as is required by the gardener, the farmer, those growing plants, and every one needing seeds or plants. The price, only ten cents, can be deducted from the first

order sent for seeds. All parties in any way interested in this subject should send at once to James Vick, Rochester, N. Y., for the *Floral Guide*.

THE POOR OF ENGLAND.—Dr. Bristowe, in a recent report to the Camberwell Vestry, says: “Do what we will, a considerable proportion of the population of our large towns will live in filth, and what others term misery; their habits and tendencies are opposed to all sanitary principles, and they are certain to remain a discredit to themselves and us, unless we banish them from our midst, or employ one-half to keep the other half clean, or house them, and feed them and keep them in idleness at the public expense.”

A CALIFORNIA physician and ranchman determined to give his stock the benefit of antiseptic precautions. He injected a carbolic acid solution into the vagina of his cows for several days previous and subsequent to labor. He tried the same treatment on a favorite mare. She will be as well as ever by next fall. What a pity that woman can't kick.—*The Weekly Medical Review*. NOTE.—The belles of this country can teach this writer that his pity is not needed.—E. S. G.

THE MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY, Ark., has been outraged by offers, from a pair of scamps, to buy “a certificate to practice,” and pledging themselves to swear to anything that the faculty may require. Their offer is signed by J. H. Piland and Steely, Hornfield, Ozark County, Mo. No charge for this notice; and it is hoped that other medical journals will be equally generous.

THE MEDICAL COLLEGE OF VIRGINIA seems to have sunk below contempt. Professors Cunningham, McGuire, McCaw, Manson, James and Tompkins have resigned, and the chair of Dr. Coleman is rendered vacant by his death. Who are to be the successors of these distinguished physicians is not known, but it is feared that good men cannot be induced to work in such an institution.

MR. ERNEST HART'S HUMOR ON NAPLES.—“See Naples and die” is a saying which has, of course, two edges. I should prefer saying that, in order to see Naples and not die, it is advisable to sojourn at Posilipo amid sea breezes which blow away the infection of Naples.

FIRST AID TO THE WOUNDED.—A newspaper reports a lecturer, on “First Aid to the Injured,” as saying that “bleeding from the nose is neither Artillery nor Venus, it is Caterpillary.”

THE NEW YORK CANCER HOSPITAL has been legally incorporated and the foundation stone laid.

THE INDEX FOR VOL. XXXVII. is made as full and efficient as possible, and has delayed the issue of this number for a few days. The Index for Vol. XXXVI. is being prepared, and will be published in due time.







