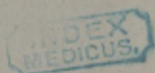
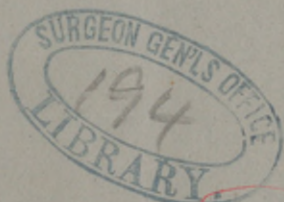


Nunn (R. J.)

REPORT ON: DISEASES OF WOMEN FROM THE FIRST
CONGRESSIONAL DISTRICT.

BY R. J. NUNN, M. D., SAVANNAH, GA.



[Reprint from the Transactions of the Medical Association of Georgia.]

Atlanta.



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INTRODUCTORY.

For some time my attention has been directed to the intimate association which exists between uterine affections and those of other organs of the body, which is the cause and which the result it is not always possible to determine, the relationship apparently differing in different cases, for while in many instances an interdependence between diseased conditions could be distinctly traced, and could subsequently be proved by the course and the termination of the case, in others the complications could be seen to depend upon a condition of malnutrition alone. Led by these observations to reflect more seriously upon the theory of tissue softening as a cause of uterine disease, as advanced by Graily Hewitt, and upon Virchow's statement touching the origin of tubercle in depraved connective tissues, I was induced to investigate more closely the influence of diet in diseases affecting the female economy.

This explanation is necessary to account for the discursive character of this paper, which deals at times, nay, in great part, with subjects apparently foreign to gynecology, yet so intimately are they blended together that in justice to the subject they could not well be separated.

There are also some other matters which, while not coming strictly within the limits of a report like this, have

seemed to me to be of quite sufficient interest to warrant a passing mention.

THE INTERDEPENDENCE BETWEEN UTERINE AFFECTIONS AND CONSUMPTION.

The influence of the unhealthy uterus upon the development of diseases of the lungs is a matter which has received little, if any, attention at the hands of practitioners.

It is not my intention to theorize upon this subject, to spend useful time in useless conjectures; my object is only to draw attention to the clinical fact, and to endeavor to awaken the medical mind to its great practical importance.

No doubt hereditary tendencies influence, to a very great extent, the appearance of these pulmonary affections, and one is liable to be led into the error of looking upon the lungs as the seat of primary lesion, and as a consequence no inquiry is made for a uterine complication. There is no doubt upon my mind that cases have died under my care having all the microscopic symptoms of consumption in whom the initial lesion was uterine, and the lung complication a matter of secondary development.

In this particular the observant public has been ahead of the medical profession. "Her courses stopped and she got consumption and died," is an expression frequently heard, and indicates the natural sequence of events as they present themselves to the non-medical mind. Even while I write this a young girl consults me for menstrual irregularity.

"Why do you come for a matter which hundreds of others deem so trivial?"

"Because I am afraid it may turn to something else."

"What do you refer to?"

"Consumption."

"How do you imagine this can give consumption?"

"When the courses stop all that discharge is retained in the system and falls on the lungs and gives consumption."

"Did you ever know of such a case?"

"Oh, yes! my friend, Miss —, died just that way, and that is what frightened me."

This is the conversation *verbatim* as it occurred. Now although this lady's pathology was at fault, we must think a moment before we say that her deductions were also wrong.

My authority for coming to this conclusion may be fairly called into question, and therefore I give my reasons. If I am consulted by a patient complaining of lung trouble in whom, upon examination, physical signs of lung disease are present, if in the same patient I find a chronic uterine disease, and finally, if the lung disease disappears upon treatment of the uterine symptoms, without any other kind of medical interference, it is but fair to conclude that the disease of the lung was dependent upon that of the womb.

Now, if several such cases can be shown, what may have been a coincidence becomes a consequence, and the conclusion at which I have arrived is unavoidable.

From a large number I select a few illustrative cases.

Miss —, aged eighteen years, was supported into my office by her mother three years ago. The history given to me of her case was that she had then been under treatment for consumption for three years without benefit, but on the contrary was gradually failing. The girl's appearance was pitiable in the extreme; color livid, with an expression of extreme anxiety; large drops of cold sweat bathing her emaciated face; her extremities swollen, and abdomen distended until it was painful; altogether at first sight the case looked most unpromising. Auscultation showed sibi-

lant ronchus over both lungs, with prolonged expiration; heart's action feeble; the abdomen was tympanitic. Examination per vaginam revealed a prolapsed and inflamed uterus; no kidney complications. She was kept in bed for six weeks with douches and other uterine treatment; the displacement was corrected; she received no other treatment; she now wears an Albert Smith pessary, shaped up from one of Chamberlain's rings, and is robust and well. From 92 pounds, her weight when she first consulted me, she has increased to 140 pounds at this writing.

Case II. Miss B., 26 years old, has been up to the last year or two very strong and healthy. She then became subject to menstrual irregularities which she attributed to hard and debilitating work. Of late she has been having frequent hæmoptyses with shortness of breath, pain in chest and great and increasing weakness. Back-ache and leucorrhœa annoyed her a good deal, her appetite was reduced to a minimum and she had a constant hacking cough and a weak, husky voice. Auscultation revealed areas of dullness with sibilant ronchus in the lungs. Upon examination the uterus was found to be displaced and the cervix congested and tender. To these symptoms attention was specially directed, and the patient slowly recovered.

These two cases will serve as types of many others of a similar character which have come under my notice; they have been selected from among the unmarried females to avoid any suspicion of complication by infection by the diseases incident to or consequent upon pregnancy, and a tedious over-minute history has been avoided as unnecessary to the purpose in hand.

There is nothing so very extraordinary in the implication of the lung substance in connection with uterine disease. Other instances are not wanting of tissue-changes

being produced at a distance by ovarian or by uterine irritation. Take for example acne rosacea which is often resultant from this cause, and medical literature is full of examples of other lesions depending for their existence upon similar distant irritations.

My object now is to draw attention to the close connection which I think exists between these two classes of diseases rather than to enter into a lengthy discussion of the subject.

It is quite true that the number of women dying in that indefinite marasmic condition—at one time vulgarly called decline—is now much less than formerly. We have learned better to differentiate disease, but it is doubtful if we fully appreciate the consequential relations which one abnormal condition bears to another.

In my report of last year I endeavored, in connection with my friend Dr. Cutter, to show that in many cases consumption bears to uterine disorders the relation almost of effect to cause. The facts you can observe for yourselves, but the manner in which these changes are brought about may be an open question.

It seems not unlikely that the steps in downward march may be as follows: First, there is derangement and impairment of the nervous system and the neuric function by the uterine disorder, followed by impaired digestion and malassimilation as the natural consequence. Then comes the invasion of the contents of the digestive tract by the *torula cerevisiæ* and consequent fermentation with its attendant disorders constantly increasing, the yeast plant then appears in the sputum, having probably found its way there through the circulation. All this has been pointed out by Dr. J. H. Salisbury long ago, and it is but little to our credit that the profession has not long since investigated

the matter. That it is no idle assertion I, and others to whom I have demonstrated the fact, can bear witness, and I present to you a bottle of alcohol made with the sputum of a consumptive patient as a ferment. A test saccharine solution of equal strength was kept beside the fermenting one during the process but did not undergo fermentation.

That the yeast plant is to be found in the sputum of all patients who are at present considered as having consumption, would be too wide a statement to admit for a moment, that it does exist in the sputum of certain cases is undeniable. and may be perhaps a useful differential test between one form of the disease and another.

Although somewhat out of place, I would like to mention that I have found this same microscopic growth in the dejecta and vomit of marasmic children.

Keeping in view these pathological facts, the cure of these diseases is effected without difficulty, as has also been pointed out by Dr. Salisbury, first by treating the uterine disorder; second, by starving out the yeast plant, which is effected by prohibiting the use of fermentable materials as food; third, by washing out the system and promoting digestion by the scientific employment of a suitable diluent; fourth, by close attention to personal hygiene; fifth, by suitable medication when required.

The yeast plants which I have found in the sputum have mostly been of the small, round, the oval, or the cylindrical shape, which I learn is regarded by brewers as indicative of weakening fermentive power. I have up to this time met with the large round cell only in rare instances. This plant, although perhaps not identical, is a near relation to the *mycoderma aceti*, the existence of which in the excretions and secretions of consumptives was likewise pointed out by Salisbury.

As to the independent presence or the co-existence of the *bacillus tuberculosis* in these cases I will not venture to offer an opinion. I have not yet succeeded in sufficiently familiarizing myself with this body, and I do not propose to enter the ranks of these scientific gentlemen, many of whom are ready to play the role of critics, without knowing a single thing of the subject upon which they hazard an opinion.

“ A time is served to every trade,
Save censure, critics are all ready-made.”

THE VOICE IN ITS RELATION TO UTERINE DISEASES.

The effects of uterine diseases upon the vocal organs was first brought vividly before my mind by the assertion made to me by professionals, that the voices of women who have borne children frequently lose much of the clearness and brilliancy they possessed previous to marriage. Repeated observations upon numerous cases which have come under my notice, would indicate that there is some truth in the opinion they expressed, for certain it is that the quality and volume of the voice of a songstress having a uterine affection will not unfrequently be found to vary apparently with the intensity of the uterine symptoms.

Miss E— has prolapse with severe cervical engorgement, suffering also from pain in the back and nervousness, with trembling; was fond of singing, and possessed a good voice. This patient voluntarily drew my attention to the fact that her voice had lost its clear, pleasant tone; the high notes had become husky, and her control of the voice had grown less in proportion to the amount of pain she felt in the back, which I subsequently found to be dependent upon the severity of the uterine symptoms

Treatment and the application of a suitable pessary relieved her.

Mrs. N—, a multipara, an amateur vocalist of some power, applied to me on account of the loss of her voice, which she attributed to some undefined affection of the throat. I found, however, that she had chronic metritis, subinvolution and complete prolapse. My treatment was directed to these complications, and in proportion as they were relieved just in like proportion did the voice improve.

A multiplication of cases is not necessary, as they of necessity are all similar; those given will suffice to stimulate further observation, and I would here remark that there will not unfrequently be found patients in whom pharyngitis seems to be intimately associated with some uterine disorder.

SUGGESTIONS FOR THE TREATMENT OF ANEMIA.

In many of the chronic uterine affections one of the most difficult symptoms to overcome is the anemia. To combat this, diet alone often fails, and iron is at first ineffectual; its employment must be preceded by the use of other remedies, addressed to the special dyscrasias of the patient.

If there exists a syphilitic taint mercury should be employed.

In the scrofulous diathesis it is to iodine and the iodides that we must first appeal.

The arthritic dyscrasias will yield best to sulphur.

Cases of anemia in herpetic patients can best be combated by arsenic or arsenical preparations, particularly the arsenite of iron.

THE MICROSCOPE IN MEDICAL GYNECOLOGY.

The importance of the use of the microscopic investigations in gynecological medicine cannot be over-estimated;

often as a means of differential diagnosis it will be found of immense value; in fact, there is nothing to supply its place. Many physicians are deterred^b from using the microscope by the erroneous idea that an elaborate instrument is necessary, and that much erudition is a prerequisite. This is a great mistake, and comes first of too much reading of over-crammed books, which serve rather to befog and mystify their readers than to simplify and elucidate the subject in hand; secondly, it is the result of a want of a practical effort to acquire knowledge by experience rather than by hearsay, which begets an unhealthy dependence upon the opinions of others, and stunts the growth of and desire for original investigation.

For clinical microscopy no great depth of learning nor an intimate acquaintance with fine spun theories is required, but a plain, practical knowledge of the names and appearance of a few of the forms which the microscope reveals. It is not necessary to know what every thing seen in the microscope is; it is sufficient to know what it is not. Just as it is not necessary to be an accomplished botanist to distinguish an oak tree from a turnip, or to be a deeply learned naturalist to tell a horse from a goat, so it is unnecessary to be a thorough pathologist to be able to make good use of the microscope for clinical purposes.

To examine the secretions and the excreta, the ability to recognize a few dozen forms, is all that is required to commence with, and increased knowledge comes unconsciously with practice. Of course the more extensive the acquaintance with the various microscopic forms the less liability there is to mistakes, and the greater the power and accuracy of the microscopic analysis will be.

A lady applied to me to be relieved of most troublesome dysuria, with which she had been annoyed for years with-

out any benefit from the many treatments she had undergone at the hands of numerous physicians. She had also a slight vaginal discharge, and upon examination a chronic thickening of the urethra. The constant irritation had reduced her very much. Digital and instrumental examinations failed to reveal sufficient cause for such a grave condition as was evidently present, but a microscopic examination of the vaginal and urethral secretions demonstrated the presence of a great number of a species of the *trichomonas vaginalis*. Based upon this examination an insecticide douche was prescribed, with the result of relieving all the prominent local symptoms in a few days; of course the physical and constitutional consequences of such long continued local irritation required other and more patient treatment.

In another case in which the patient applied to be treated, for what she thought to be an old standing disease, I found by microscopic examination the whole trouble to be caused by another variety of the same minute organism. A course of treatment similar to that adopted in the former case resulted equally as well.

It is unnecessary to multiply cases. These two fairly illustrate the value of the microscope in this class of complaints. But for it I, too, might have blundered along in the course pursued by others who had treated these cases. Success in diagnosis and in treatment comes not always of genius, but of the possession of improved means of investigation, and of the patient, constant, conscientious employment of them.

A PLEA FOR SPECIALISTS.

The members of the medical profession have, as a rule, cheapened their services until it has become in many instances of but little value, simply because they cannot

afford to give the necessary attention to their patients for the compensation they receive. It is about time that the public should learn that a doctor's opinion, like a lawyer's, is seldom worth more than is paid for it. Persons who act as if they consider that they are "doing God service" when they cheat their doctor or depreciate his services, are ready to go a few miles from home and willingly pay large sums for opinions not one whit better, and often not as good, as those left behind them at their own doors, or else they rush—money in hand—to patronize every medical mountebank who with sufficient loudness "toots his trumpet" in their midst.

If, however, there is a want of proper encouragement in our cities and in our smaller communities, to the pursuit of special lines of medical investigation, the fault lies no little at the door of the profession itself. Until within the last few years every physician would undertake to do every thing in any way connected with medicine. He would make a post-mortem examination; he would analyze the contents of the stomach; he would be oculist, aurist, gynecologist, neurologist, electrician, surgeon, accoucheur and microscopist. in fact he would be, or pretend to be, any thing in which he could see a dollar. Much of this is changed, but there is still much to be done. The general practitioner now is willing to encourage special investigators provided they reside at a distance from the locality in which he practices, but he distrusts and underrates the labors of those around him, and this appears to be in inverse ratio to the size of the community. It may be that in such a locality physicians become so intimate that they feel as if they had a right to utilize the special acquirements of each other without pecuniary recompense, while in a large city the same service would be paid for. Here, if an operation is to be

performed upon a patient of ample means, the operating surgeon alone receives any remuneration, while a medical friend is expected to administer anesthetics free of charge, a service which would be paid for in a large city. If an analysis of urine is to be made in a case, some one is called upon to do it as a personal favor, instead of receiving the compensation which he would get for such services in a more populous locality.

I take the liberty of directing attention to this state of things, because I think that each individual has a right to expect and to receive reasonable recompense for his special knowledge, and should be encouraged in the pursuit of that particular course of study or practice for which nature or education has best fitted him.

Let me not be understood as advocating the education of young men as specialists; but after an apprenticeship of ten, fifteen or twenty years spent in general practice, every physician will fall into that line for which he is best adapted, and will bring to it ripe experience and thorough grounding in the general principles of medicine. Such a system should be encouraged. The domain of medical science is too vast to be compassed by any one human mind, and it is only by directing attention into special channels that we can ever make progress. A specialist, such as I have described, if carried to the limit of its perfection, would fully come up to the well known definition of a great man—one "knowing every thing of something and something of every thing."

MICROSCOPIC EXAMINATION OF THE BLOOD.

In the examination of the blood a field of investigation of great promise has of late years been opened up to ardent and persevering clinical microscopists. While from my

own personal observation I am as yet unable to confirm all that has been claimed for the microscopic examination of the blood in diagnosis, I can positively state that this pursuit has proved of great value to me, and I feel amply rewarded for the time, trouble and expense which I have devoted to the study.

In America and in Europe there are quite a number of earnest hæmatologists, and there is every reason to hope that the time is rapidly approaching when the microscopic examination of the blood will be universally regarded as a powerful aid to the diagnostitian; meanwhile I would bespeak from the profession of Georgia a more lively interest in the use of the clinical microscope.

As a rule I examine the blood of all my patients, and I hope at some future time to give some of the clinical results of these observations, but in the meantime would refer my readers to special works on the subject. The study of certain diseases in this connection, such as consumption, syphilis, etc., has been to me a subject of special interest. Occasionally, that is in some specimens of blood, I meet with a red corpuscle, which becomes crenelated long before the others, and has an independent motion, twirling first in one direction and then in another, rotating and vibrating with movements not unlike that given by a squirrel to a nut which it is nibbling. What is the cause of these movements I am unable to say. I have thought it might be due to a bacterium, but my instrument is not of sufficient power to solve the problem.

Up to this time I have not found these moving corpuscles except in the blood of syphilitic patients. I do not wish to be understood as saying or proposing this as a sign or one of the signs of syphilis, but only say that I have not yet found it outside of those persons having a syphilitic history.

A patient, married, who had been for some time under treatment for uterine displacement, and who never had the least abrasion, nor any thing simulating a primary sore, nor yet even a vaginal discharge, consulted me for, as she expressed it, "falling away, being weak and out of condition." Her complexion was sallow, temperature two degrees above normal; pulse 102; loss of appetite, thirst, general malaise, but no defined pain; small, round, brownish spots appeared all over the limbs and body. These spots would sometimes subside, appearing pale pink under the skin. There was slight sibilant ronchus in the right lung. The urine presented no special abnormality.

The examination of the blood showed an unhealthy condition of the red corpuscles, and the moving vibrating corpuscles spoken of elsewhere; moreover I found the bodies named by Salisbury—*crypta syphilitica*. Under these circumstances I had no hesitation in placing her on an anti-syphilitic treatment. The subsequent progress of the case fully corroborated the correctness of the diagnosis. This case I may lay before the Association on some future occasion in its details.

A CASE OF OVARIOTOMY

Which terminated fatally, has been to me exceedingly instructive. There was nothing unusual in the history of the case, nor of the operation which was quite successful, but the subject was a victim of the opium habit, and although I kept her under observation for some time previous to the operation, she managed with the cuteness characteristic of these people to deceive me as to the amount she used, which she represented as four teaspoonsful of laudanum, whereas the true quantity was sixteen grains (gr. 16) of morphine daily. The first day after the operation I

gave a quarter ($\frac{1}{4}$) grain of sulphate of morphine hypodermically every two hours, but the patient was nervous and restless to a degree not warranted by her other symptoms. The next day I doubled the sulphate of morphine, but with no better result. The third day I gave three-quarters ($\frac{3}{4}$) of a grain; still the same condition; then she confessed to me that she habitually took sixteen (16) grains daily. I then gave her this amount, and increased it until she got quiet, but the shock was too great, and she died on the eighth day.

At the autopsy the abdominal wound was found to have healed by the first intention. There were no symptoms of inflammation in the abdominal cavity, which contained only a little bloody serum not in the least decomposed.

COTTON CANDLE-WICK TAMPONS (FOSTER).

The time-honored cotton ball tampon has, as a dressing in my practice, been to a great extent supplanted by Foster's candle-wick dressing. The wicks are made into a rope, containing ten or twelve strands, from which a piece is cut off of the length required; to one end a string is attached to facilitate its removal, while the other end can be moistened with whatever application is to be made. Not the least of the advantages of this dressing is the ease with which it can be applied through a small speculum, and with it the columning and packing can be done to perfection. The facility of its removal is by no means its least recommendation.

LOCAL BLEEDING IN THE TREATMENT OF UTERINE CONGESTIONS.

The employment of local bleeding as a means of combating uterine congestion is not by any means a novel proced-

ure; leeches being formerly much employed for this purpose, but the delay, the uncertainty, the inconveniences and dangers attendant upon their employment, has led them gradually to fall into unmerited disuse. As far back as the time of Scanzoni the mechanical leech was recommended as a substitute for the natural one, but this likewise appears not to have met with favor. There are three instruments of the kind in the market, viz: Tiemann's, Heurteloup's and Reeves'. Dr. Cutter's instrument and my own are similar to Reeves'. The two former make circular incisions, and the latter a punctured wound. I use both varieties, but the one I commonly employ is one which was made for me by Messrs. Tiemann & Co. It is a strong, powerful instrument, capable of penetrating as much as three-quarters of an inch if desired. It is in daily, nay, I should say in hourly, use in my gynecological practice. It is my main reliance for the relief of uterine congestions, and so far it has not failed me in accomplishing its mission more speedily and effectually than any other means I have ever tried. I have drawn as much as a gill of blood daily for several days in succession from a case of bad congestion with most satisfactory results, while in no instance have I experienced any unpleasant effects. Even when the calibre of the vessels is unusually large, they may be punctured without fear. Not unfrequently have I wounded an artery and had the stream to spurt beyond the speculum; yet with the relief of the congestion the bleeding would stop spontaneously. Here I would like to remark that bleeding of the posterior lip appears to give more relief than an equal flow from the anterior one.

The normal cervix does not bleed much, if any at all, when punctured, but I would suggest caution in puncturing the endocervical surface, as in this locality the bleeding

does not stop quite so readily as in the case of punctures in the vaginal surface of the cervix. This remark is also applicable to the everted endocervicum in cases of laceration.

LOCAL DEPLETION BY OSMOSIS.

The glycerine tampon is of such frequent use, as a form of local depletant, and is so important to the gynecologist, that I may be excused if I mention an improvement in its composition by the introduction of boracic acid into the glycerine which is employed in the tampon.

This suggestion I owe to Dr. Jules Cheron, of Paris, France, and the manner in which I carry it out is as follows: To four pounds of glycerine I add one pound of boracic acid, and heat them until the acid is dissolved. This I keep in stock, and use pure or mix with the glycerine which I use for the tampons, in the proportion of about one-fourth of the boric solution to the quantity of glycerine to be mixed; or more or less if deemed desirable in certain cases.

The antiseptic properties of this mixture make it of great value, as a tampon can with it be easily retained for from four to six days without showing any evidence of decomposition; moreover, the boracic acid has a most happy effect upon the mucous membrane of the vagina. I have been using this preparation for about four years, and I am induced to draw attention to it as a matter of justice to Dr. Cheron, to whom, as far as I know, belongs the credit of the combination, although within the last few months it has been brought forward as something entirely new, and coupled with the name of Prof. Barff.

Other antiseptics may be used with glycerine, as, for example, two per cent. of salicylic acid or a little carbolic

acid. With these, astringents such as tannin or alum, may be combined. One combination, particularly praised by Dr. Robert Bell, is glycerine 80, alum 10, carbolic acid $3\frac{1}{2}$. This has the advantage of not staining the clothing, but there are cases in which the alum does not act as well as the tannin.

FREE LOCAL DEPLETION IN THE TREATMENT OF CONICAL CERVIX WITH
STENOSIS OF THE OS—CASE.

This case was presented for treatment on account of amenorrhœa of some months' standing. For six years previously she had had dysmenorrhœa. She was 27 years old, robust, and unmarried.

Examination revealed a conical cervix with a pin hole os, there had been no caustics used, so that this condition was not cicatricial.

Local depletion by scarification was made daily for a month with boro-glycerine tampons and hot vaginal douches, at the end of which time the conical form had disappeared. The os was of normal size, and a sound passed readily into the uterus. Menstruation came on painlessly for the first time in six years, and has returned regularly ever since.

INSUFFLATION OF POWDERS.

For the insufflation of powders, not only into the vagina, but also into other cavities, I have for the last three years been using the ordinary "powder gun" sold for sprinkling insect powder; costing not more than twenty-five cents, it is possible without much outlay to keep on hand a number ready charged with different powders, and their action is quite as good as that of more costly instruments.

In using these powder blowers, I have with some powders found it necessary first to shake the powder down into the tube. This is no trouble—is but the work of an instant—but it is well to know.

In this way, by the use of oxide of zinc mixed with ten per cent. of powdered boracic acid, I have cured some most troublesome cases of nonspecific vaginitis accompanied with intense pruritus.

FACTITIOUS STONE IN THE BLADDER—CASE.

A case was presented for treatment in my service in the Savannah Hospital as being some form of uterine disease, the prominent symptoms of which were pain in the back, hot flushes in the head, bloody urine, with sudden and painful stoppage during micturition.

A careful examination failed to reveal any uterine complication, and while the patient was under observation a menstrual period came on without any abnormality. The microscopic and chemical examination of the urine showed that the renal function was unimpaired. It was evident then that we had to deal with some derangement of the bladder. Proceeding to the examination of this viscus, a small, white, very friable calculus was found lying in the urethra, just within the meatus. The next step was the dilation of the urethra to allow a digital and endoscopic examination of the bladder, as the sound failed to reveal the presence of any calculi. First, by catheter drawing off the urine, a clear amber fluid was obtained in place of a bloody urine which the patient was then passing, at the same time no abrasions could be discovered, although most carefully sought for. The source of the hemorrhage was then and still remains a mystery.

In the dilation of the urethra the warnings of Dr. Emmett, as to the production of incontinence, were kept in view; and here it may not be out of place to remark that this unpleasant feature has never resulted in any of the many cases in which the female urethra has been dilated by me. This comes perhaps of the fact that the dilation is always a slow proceeding, the sphincter being fatigued into yielding, but not ruptured or paralyzed.

In the present case, several days were consumed in the process of gradual dilation of the urethra, during which time four calculi (?) were found on succeeding days, each one being situated, like the first, just within the meatus.

About this time the patient mentioned that several such pieces had been taken from her while under treatment in another city.

The required calibre of urethra being attained, the bladder was carefully explored but not a trace of calculus could be found, and the organ itself was perfectly healthy, the sphincter at the external meatus was, however, remarkably rigid and unyielding.

From this time the bloody urine and the calculi disappeared, although the patient was kept under close observation for two months.

The calculi are presented for your observation, two of them at least seem to be pieces of mortar, the grains of sand in them being plainly visible with a lens.

The patient strongly and persistently denies placing the calculi within the urethra.

VAGINAL STRICTURE OPERATED UPON WITH RIGHT-ANGLED SCISSORS.

Unless one has had practical experience in the matter, it is difficult to appreciate the obligations the profession is under to Dr. Emmet for his many ingenious modifications of scissors for use in gynecological surgery. I beg to add one to the list of these instruments; it is a right-angled scissors, bent on edge, made for me by Messrs. Shepard & Dudley.

This instrument was contrived specially for a case of traumatic stricture of the vagina. It has been used in two cases of stricture of the vagina, and one of imperforate hymen, and has proved so convenient for this class of operations that I venture to bring it to your notice.

Of course these scissors are made either sharp or blunt pointed, as desired.

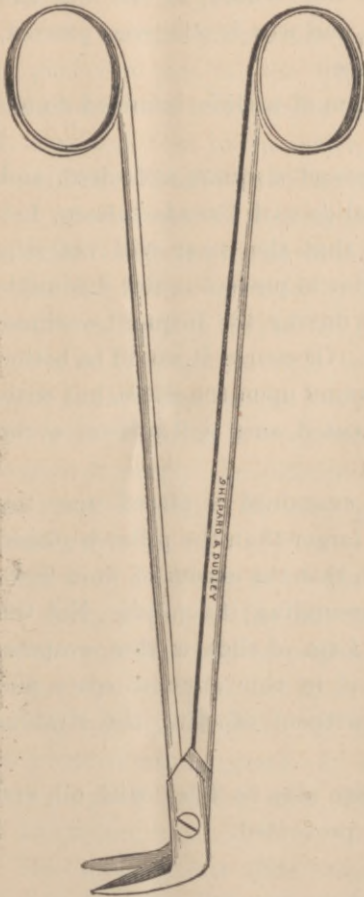


FIG. 1.— $\frac{3}{4}$ SIZE.

THE PILLAR SLIDE—A NEW SLIDE FOR THE MICROSCOPE.

Every microscopist knows the difficulty of estimating exactly the amount of fluid which will completely fill the

space between a cover and the slide, and consequently a bibulant must be applied to absorb the excess almost always present. This takes a little time which, to one who has many examinations to make, and who is otherwise pressed, is a matter of some importance.

The following is a description of a slide intended to obviate this difficulty :

Take a small, thick cover (round or square, as desired,) and cement it on the center of a slide with Canada balsam. Let this harden thoroughly so that the cover will not slip during warm weather, and also to prevent water insinuating itself between the glasses during the frequent washing to which it will be subjected. Of course it would be better to have these little pillars ground upon the slides, but with care in using them the cemented ones will answer every purpose.

A drop of the fluid to be examined is placed upon the pillar just described, a cover larger than the pillar is placed upon it, when it will be seen that the excess of fluid flows into the annular space surrounding the pillar. Not the least advantage of this new form of slide is that evaporation takes place from the fluid in this annular space, and may go on for a long time without affecting the stratum under examination.

If desired, the annular space may be filled with oil, and evaporation thus be entirely prevented.

CHEMICAL—NEW SLIDE FOR THE MICROSCOPE.

For the application of chemical tests to fluids under microscopical examination, the "pillar slide" presents many advantages. The method usual in such cases, is to place a drop of the reagent at one edge of the cover, and a bit of

blotting paper at the opposite edge, with or without a hair inserted between the cover and the slide to facilitate the inflow of the reagent.

If the circular pillar slide be used, then the cover must be pushed so that all the space is on one side, there will thus be formed a crescentic instead of an annular space. It is evident that in the latter, if the space is filled with reagent it will affect the film, but slowly, because evaporation takes place from the reagent itself, and there is nothing to draw it between the cover and the pillar. In the round pillar this is best corrected by having the diameter of the cover smaller than that of the pillar, and pushing it to one side so as to project a little beyond the pillar, the lunate space thus formed is filled with reagent, while the rest of the edge of cover is evaporating and drawing upon the reagent to supply the deficiency thus created, or, to hasten the reaction, a bit of blotting paper may be applied in the usual way.

Another good way is to use a square cover, let one of the corners project beyond the pillar, and under this corner put the drop of reagent, in this way nearly the whole of the edge of the cover will be left free for evaporation, and the rapidity of the reaction will of course be proportionately great. If desired a different reagent may be placed under each of the four projecting corners of the square cover.

The "square-pillar slide" seems, however, best adapted to this class of work, with a cover the same size or smaller than the pillar, and projecting a little beyond it; the reagent will then occupy one side of the square and evaporation go on from the other three sides. If an oblong cover is used which projects on opposite sides of the pillar, then the same or different reagents may be placed on opposite

sides of the same specimen, without danger of mixing with each other.

SLIDES WITH HOLLOWS FOR CHEMICAL REACTIONS.

Many of the advantages of the pillar slides for the observation of chemical reactions may be obtained by using polished glass slides with one or more hollows.

In using these the drop of fluid to be examined is placed by the side of the hollow, or between them, if there be two or more, and the cover is allowed to project over the hollow or hollows a little distance; under this projecting edge the drop of reagent is placed, and the bit of blotting paper may be used as usual upon the slide if desired.

HYPODERMIC SYRINGE WITH PELLET HOLDER.

The instrument which I show you is the outcome and perhaps the completion of a series of hypodermic syringes, some of which have already been exhibited to the Association, of which the first was made for me by Messrs. Arnold, of London, about five or six years ago, of glass and metal; next in an improved form by Messrs. Tiemann & Co., of New York; next in celluloid with other improvements by Messrs. Otto & Son, and this one in hard rubber by Messrs. Tiemann. It of course could also be made in celluloid.

You will perceive that externally the syringe and the pellet holder present the same appearances, that of a thermometer case—perfectly smooth from one end to the other.

The objects in view in designing this hypodermic syringe were—

1. To enlarge the piston rod to full size of the bore of the barrel, and to make it hollow. In this way increased

strength is attained, and a convenient receptacle formed in which can be stored the various attachments of the syringe; in this instance two needles can be carried in the piston rod. In this way the utmost degree of compactness is arrived at. This principle is applicable to all syringes or pumps of this class, irrespective of size.

2. Making the joints perfectly tight when closed, so as to prevent the drying of the piston.

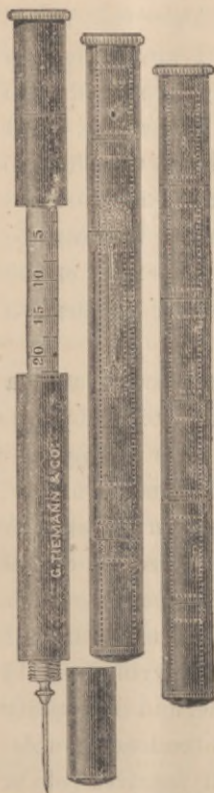


FIG. 2. FIG. 3. FIG. 4.

3. Attaching to one or both ends of the syringe, or forming into an independent rod, a number of boxes to be used as pellet holders, in which also test paper can be carried.

4. Making an elastic expanding piston.

5. In the case of glass barrels the use of a revolving fenestrated sleeve to protect the glass as giving the lightest and most compact form of case.

6. Making the whole without shoulders or projections, so that it can be slipped into the pocket case.

7. Making all the screws interchangeable.

Fig. 2 shows the syringe with three compartments ready for use.

Fig. 3 is the syringe packed up.

Fig. 4 is the pellet holder with six compartments.

The figures are a little smaller than the instrument itself.

EXTIRPATION OF HAIRS BY ELECTRICITY.

Some of your lady patients may be annoyed by the growth of hairs upon the face. These may be removed by the use of the electrolytic method, but a good deal of patience is required if the number of hairs is large.

One would suppose this plan to have originated within the last couple of years, to judge by recent articles which have appeared in medical journals, but I know that I used it previous to 1876, and did not think I was doing any thing very new or wonderful, being fully impressed with the idea that I had seen the suggestion somewhere, and I saw it in use in England in 1877 at the Royal Ophthalmic Hospital in London, and to the operators there it seemed to be an old story. Although the governing idea may be identical with all, still each operator will have more or less of individuality, and hence I venture to give my method of procedure.

I early found that steel needles became rough after a little use, and this together with the shape of the point, rendered them difficult of introduction. After trying various metals, including gold, silver and platinum, I finally, at the suggestion of a dentist, tried a wire of an alloy of gold and platinum, such as is sometimes used in dental plate work. The dentist referred to furnished me with some of this wire about the year 1875, and since then I have used no other needle. The angle of the point should be acute—not rounded like a sewing needle, and if properly made it will slip in beside a hair without the least trouble.

The needle should be connected with the negative pole of the battery, and a large sponge, which the patient holds in the hand with the positive pole; a couple of cells are turned on, and the needle introduced alongside of a hair. Then

additional cells are introduced until the skin round the hair begins to whiten. The action is continued for five or ten seconds, and the needle is withdrawn. The hair may then be pulled out, and if the operation has been perfectly performed, the bulb comes with it.

It will be observed that the current is to be established before the introduction of the needle. By doing this the electrolytic action serves as a lubricant, and the comparatively soft needle slips in without the least difficulty. The depth of penetration should be sufficient to reach the bulb. This you will observe, in the needles shown you, is regulated by stripping off the non-conducting coat with which the needle is covered to the distance desired.

The battery employed is the ordinary Stohrer cell.

To pick out the hair, an excellent forceps may be extemporized out of a ruling pen, and as a magnifying apparatus, I use a watchmaker's glass, slipped into a spectacle frame, as I show you.

With this arrangement, I have destroyed and taken out as many as three hairs a minute for several consecutive minutes, and have eradicated two hundred and fifty (250) from one patient at a single sitting. The largest number which I have destroyed for any one person is a little over six thousand (6,000).

From the time spoken of to the present I have had but two wires, and I have them still, apparently ready to do as much service as ever. I take the liberty of laying them before you.

URETHRAL, VAGINAL AND RECTAL CERVICAL AND OTHER STRICTURES
TREATED BY ELECTROLYSIS—INSTRUMENTS.

The tendency to return of strictures of various passages, such as the urethra, vagina, rectum and cervical canal

when treated by dilatation, and, indeed by other methods also, led to the adoption of electrolysis as a means of permanent cure, of course there is nothing new in this mode of treatment. First Crussell, then Willibrand and Wortheimer employed it, and MM. Mallez and Tripier wrote about it in 1867. Since then every electrician has, more or less, used it. The latest writer who has come to my notice is Dr. Robt. Newman, of New York. I bring the subject before you simply to point out the advantages of the instrument I employ.

I always have been and still am an enthusiastic advocate of the medical employment of electricity and other cognate forces, and as soon as the treatment by MM. Mallez and Tripier became known to me I changed an old set of Wakeley's dilators by soldering a wire to the tips and passing it up the inside, and thus I had an electrode which I could slip down over a conducting bougie. These home-made instruments have done me good service in past years, and I have had a set made by Messrs Tiemann & Co., on this principle, which I take the liberty of bringing before you. There are both flexible and stiff electrodes and they could be made to carry both poles if desired; they can also, of course, be used without the conducting bougie.

In employing these instruments there is first passed through the stricture a conducting bougie, over which is slipped the electrode, and then the connection is made with the battery in the ordinary way.

You will see here electrodes of all sizes, from those to be used in the urethral and other strictures of small calibre, to large ones which are intended for use in the rectum and vagina.

These instruments recommend themselves as being

absolutely safe even in the hands of the veriest tyro, as the conducting bougie keeps the instrument in its track with certainty.

One of the greatest mistakes that can be made in the employment of galvanism for this purpose, is the use of too strong a current. It is not necessary that the action should be painful. A slight, but not disagreeable sensation of warmth is all that is required, and this current, patiently applied for a sufficient length of time, will certainly accomplish the result desired. This has been my experience so far, in cases of traumatic stricture, and in those in which the condition was congenital, but when the contraction has been dependent upon malignant disease, I cannot say that I have attained the same pleasing results.

This figure of the inflexible electrode for the male urethra, will serve to illustrate the principle. They are made of all sizes, either flexible or stiff, straight or crooked, as required.

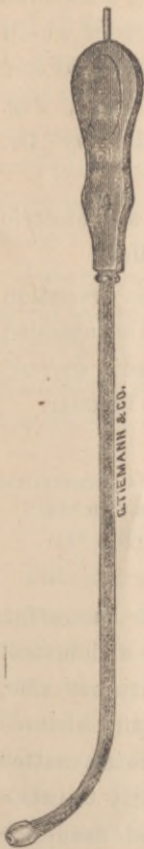
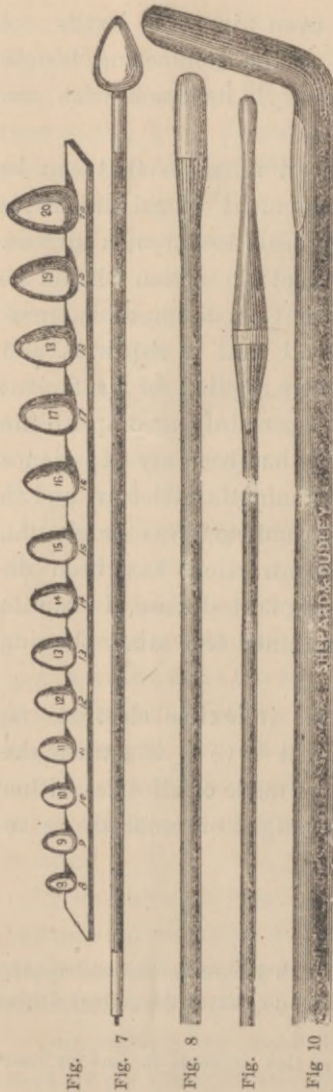


FIG. 5.

NOTE.—Another form of electrode which I have devised and used in the treatment of these diseases is intended to convey the current during the extraction of the instrument.

I have been unable to procure a cut of this electrode in time for insertion in this report.



a series of metallic olive-shaped electrodes, which screw on to an insulated conducting flexible stem, Fig. 7, as recommended by Dr. Guyon.

Figs. 8 and 9 are electric bougies of Dr. Mallez.

Fig. 10 is also the invention of Dr. Mallez, and is intended to apply the galvanic current to the neck of the bladder.

CANULA AND WIRE AS A SUBSTITUTE FOR THE NEEDLE IN THE ELECTROLYSIS OF TUMORS, ETC.

One of the most successful ways of treating abdominal, and, indeed, other tumors also, is by the use of the electrolytic current, but it is a matter of no little difficulty to introduce the insulated needles—the varnish used for insulation causing the tissue to cling to the instrument. To obviate this difficulty I substitute a fine trocar and canula which, being introduced, the trocar

is withdrawn and a fine insulated wire passed through the canula which can then be withdrawn. This plan works admirably.

For the benefit of those who, like myself, are often compelled to use home-made instruments, and who may desire to know a ready way of insulating the wire, I would say that the wires I have used, and now show you, are insulated by successive coats of collodion, and the wire itself is of gold and platinum alloy. These wires are over eight years old, have been used a great many times and are still as good as ever.

I mentioned this arrangement to a manufacturer of electrical instruments in New York in 1876, but for some reason best known to himself he never took advantage of the information, and the instrument has never been placed upon the market.

ANTIMONY AS A NEGATIVE ELEMENT.

This brings me to mention the value of plates of antimony as a substitute for carbon in the cells of the galvanic battery. This was communicated to the same manufacturer at the same time, but has since lain upon the shelf. While it is quite true that these plates are not perhaps as electro-negative as carbon, their superior conductivity seems to more than compensate for the difference. They are easily made by any metal founder, and the broken plates can be remelted and cast into any desired shape, such as plates, cells, etc., of almost any size. The only drawback is the brittleness of the metal which, however, is, I think, not greater than that of the carbon, but this may be remedied by the use of a small percentage of lead which seems not to appreciably affect the working of the battery.

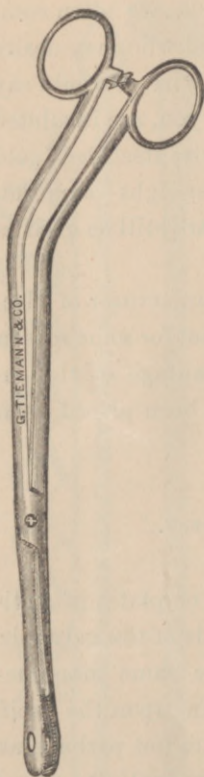


FIG. 11.

IMPROVED PISTOL-HANDLED UTERINE DRESSING
FORCEPS.

This is an improved form of the pistol-handled forceps exhibited at previous meetings. It is somewhat shorter, the grip is stronger, and the curves of the handles have been changed so that the catch will in no way interfere with its use as a dressing forceps, while it may still be employed as a polypus forceps or artery forceps if desired.

This figure is not strictly correct. The handles should be shown half an inch apart when the points are in contact.

NOTE.—The writer is under obligations to Messrs. Shephard and Dudley and Tiemann & Co., for the illustrations used in this report.

