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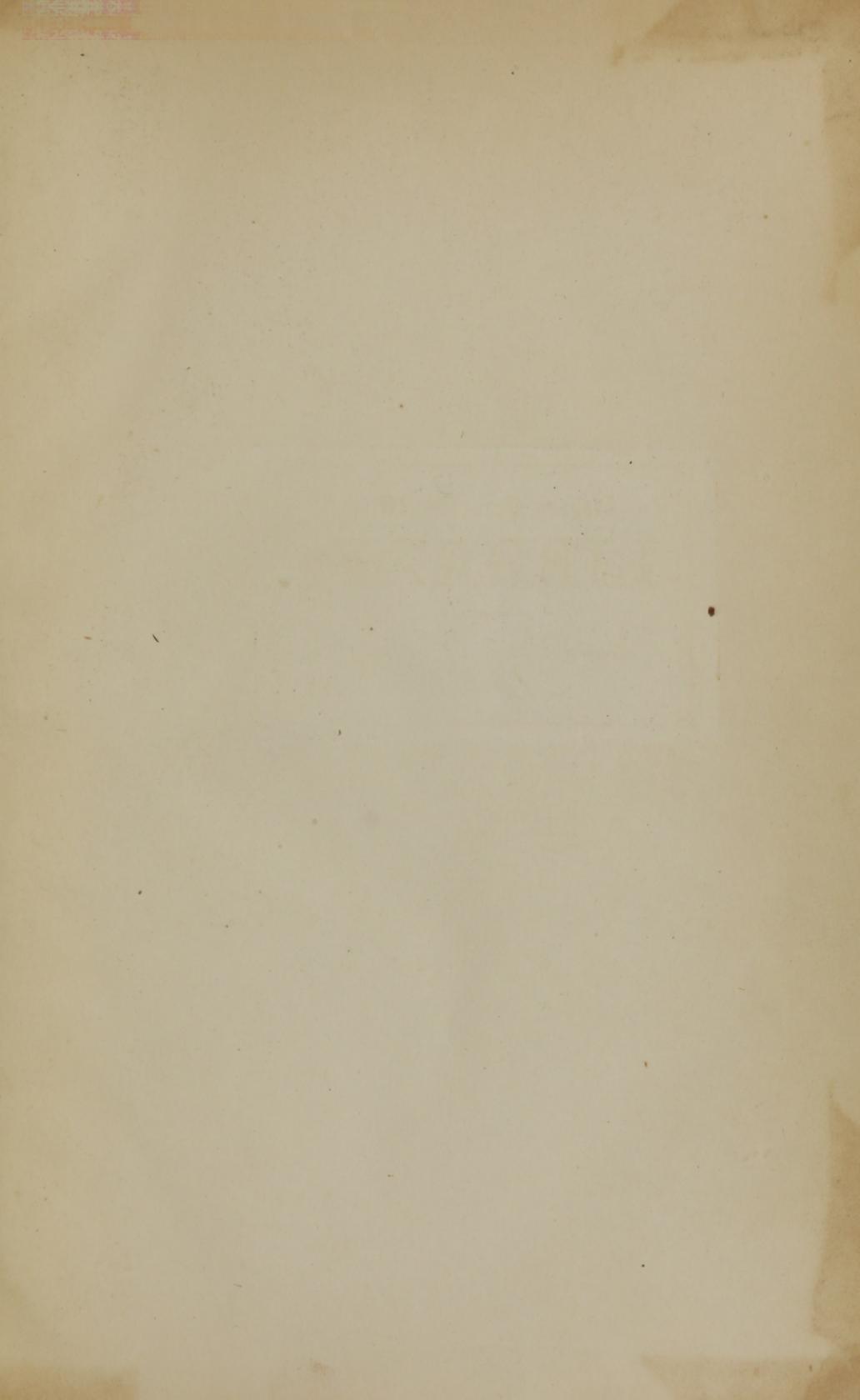
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J. McF. Gaston

TREATMENT

OF

DISPLACEMENTS OF THE UTERUS

WITH THE

ABDOMINAL SPRING PESSARY.

BY

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CHARLESTON:
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DESCRIPTION OF PLATES
OF THE
ABDOMINAL SPRING PESSARY.

No. I.

A direct front view of the entire Apparatus.

No. II.

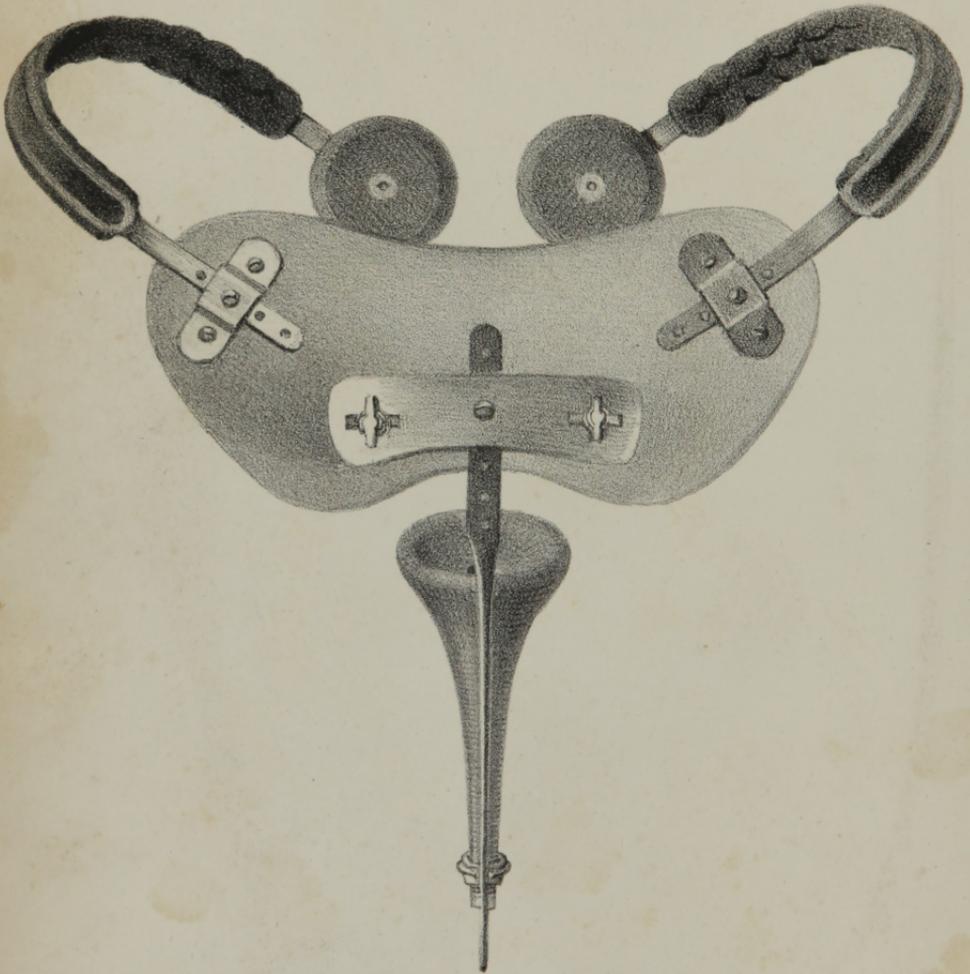
Side view of the Pessary and the Spring.

No. III.

Oblique concavity of the upper surface of the Pessary, with the opening of the tube which passes down through the stem.

No. IV.

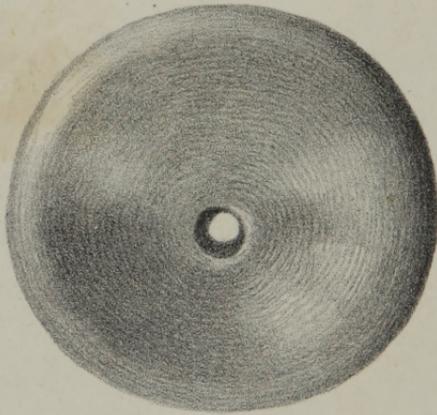
Antero-posterior section of the female pelvis, and the Pessary in its appropriate position, with the tube extending through it. Also, the Spring, with a screw in the upper extremity, by which it is to be secured to the front-piece of the Abdominal Supporter.

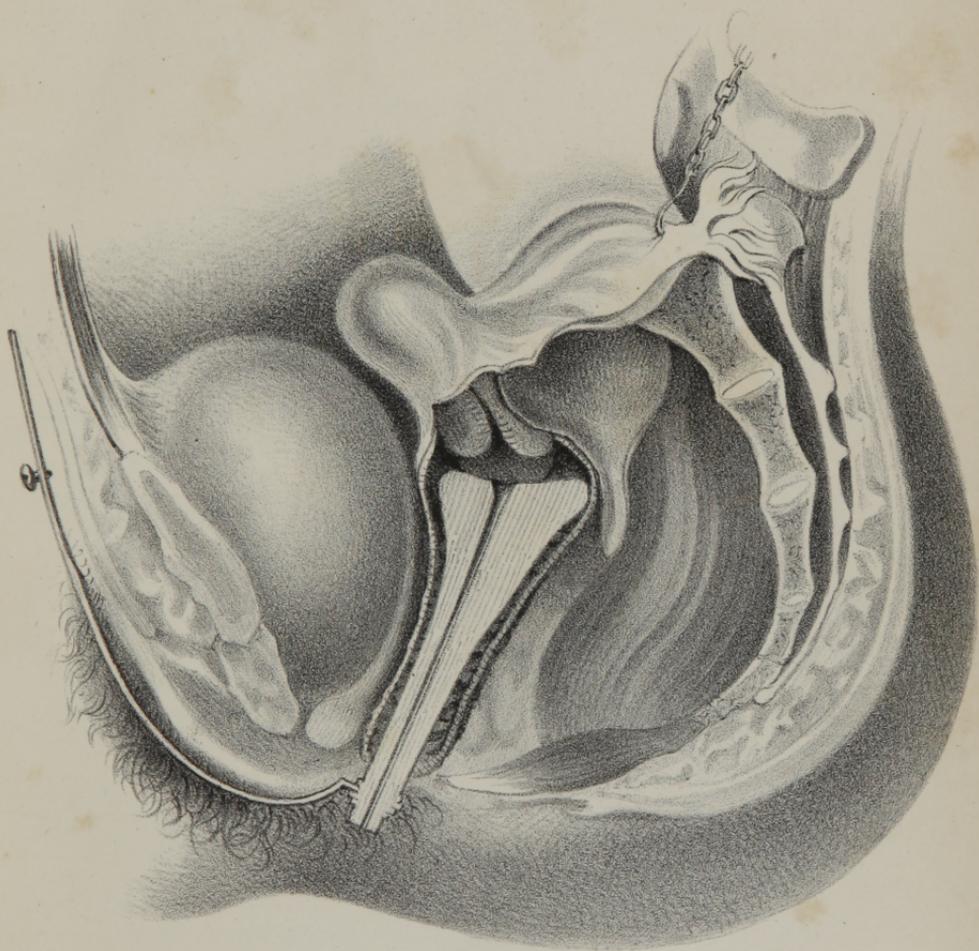




A Frey, Del.

T. Sinclair's lith Phil^a





TREATMENT OF DISPLACEMENT OF THE UTERUS, WITH THE ABDOMINAL SPRING PESSARY.

This apparatus is designed for the relief of prolapsus uteri. It combines the stem-pessary with the abdominal supporter, by means of a spring, from the front-piece of the supporter, extending downwards, and with a curve backwards, to the lower end of the stem of the pessary.—The material of the pessary is silver, reduced to a thin plate. At the lower end it is a mere tubular stem $\frac{3}{8}$ inch diameter, but is enlarged in its upper portion into a hollow bulb, which is depressed above and anteriorly, so as to form an oblique concavity, with a rounded rim measuring $5\frac{1}{2}$ inches in circumference. In the depression above there is an opening, from which a tube $\frac{1}{4}$ inch diameter descends through the cavity, and out at the lower extremity of the stem. The length of this tube is $3\frac{1}{2}$ inches, while the length of the posterior face, from the rim of the bulb to the extremity of the stem, is $4\frac{1}{2}$ inches, and that of the anterior face is $3\frac{5}{8}$ inches. The difference between the posterior and anterior measurement results from the obliquity of the rim of the concave surface, and a slight curvature forwards of the upper portion of the pessary, so as to correspond to the axis of the pelvis. The largest diameter of the rim is from side to side, and its front part is somewhat flattened and obtunded, thus obviating any collision with the rectum or bladder.

This is the size of the original instrument, and is the largest that is to be used in the treatment of any case. Others, of smaller dimensions, have been applied with good results, and may be suited to the condition of the parts. The shape of the upper portion has also been modified, assuming the form of a concave convex cup, instead of the hollow bulb.

The stem is provided below with a shoulder of annular form, having immediately beneath it a square which fits in a corresponding opening in the flat end of the spring; and a rounded tap, which screws on the extremity of the stem, secures the pessary in a fixed position to the spring. Being thus attached, the spring assumes the form of a wire, with a curve suited to the labia, which in the ascending portion is flattened, and has holes to within an inch of the extremity in front. It is attached to the horn front piece of the abdominal supporter in the following manner: A metal plate is attached to the lower part of the piece of horn by rivets at each end, and the intervening portion is slightly raised, to allow the end of the spring to pass under it. In the middle of this plate there is a hole with a thread in it, corresponding to one at the shoulder of a thumb-screw, which is fitted into it. An extension of this thumb-screw, in the form of a smooth round pivot, passes through one of the holes in the flat end of the spring, and into a hole in the horn beneath, and thus secures the spring to the abdominal front-piece. The attachment of the upper haunch springs is by a similar arrangement at the upper corner of the horn front, and the back ends of these upper springs are provided with discs of horn, and mounted with knobs of metal, by which a strap connects them across the sacrum.

The front end of each of the three springs, being without holes for an inch, projects beyond the plate under which it passes, and serves as a lever, when the instrument is applied, to press against the horn front piece, thus giving additional support to the abdomen.

This instrument may be adapted to persons of different size, by simply placing the pivot of the thumb-screw in the different holes of each spring, when it is attached to the front-piece of horn; and the lower spring may be disconnected until the pessary is introduced, and the other apparatus is properly adjusted, when it may be graduated in its attachment, so as to retain the womb at a proper elevation.

As to the material and shape of the frontpiece and the discs, with the upper springs of this apparatus, I prefer no claim to originality; but the manner in which they are attached to the horn, and the connection of the front-piece with the three springs, admitting of alteration or removal by means of a thumb-screw of a peculiar kind, is an arrangement of my own.

The lower curved spring, and the hollow stem pessary attached, having an opening extending through it, are the parts of the apparatus which I specially claim; and I have not seen or heard of any instrument embodying the same features, or calculated to effect the same end. The instruments of Valleix, Kisseau, and Kiwisch, are most like it. But the principle upon which my apparatus is constructed is new, and consists in the application of a steady but elastic support to the womb from without, while all irritation and restraint are avoided. It has been deduced from a thorough consideration of the parts involved, as to their anatomical, physiological, and pathological relations, and is addressed to the various functions, at the same time that it is calculated to effect a radical cure of the malady.

When the apparatus is properly fitted to the person, and the pessary is introduced into the vagina, the neck of the womb rests in the concavity of the upper surface, and the organ is kept in its place through the medium of the spring attached to the stem, without any tension on the vaginal walls. In the use of all self-retaining pessaries, the vagina is so distended as to overcome its contractile powers, and increase the liability to prolapse after the removal of the instrument. But such a result does not attend this modification of the pessary, as the stem is so reduced in size, that it causes no dilatation of the rugous coats of the vagina, or of the sphincter. The tube, which affords an outlet to the secretions of the womb, admits also of the introduction of medicated injections, which come in contact with the os tinæ, and flowing over the rim of the pessary, are diffused on the entire lining membrane of the vagina; thus the vaginal walls are contracted, and the broad and round ligaments being restored to their proper tone, retain the womb in its normal position.

The abdominal front-piece takes off, to a great extent, the downward pressure of the intestines, and a radical cure is promoted without the restraint and inconvenience which attends the ordinary treatment for prolapsus uteri. Instead of long confinement to the horizontal position, with its concomitant atonic condition of the physical organization, the patient may walk and take healthful exercise in the open air while the

apparatus is worn. After the patient lies down at night, the instrument may be removed, to avoid any irritation, and to admit of the marital indulgence; but it must be re-applied before rising from bed in the morning.

In conjunction with this apparatus, a four ounce womb syringe, with a perforated ivory bulb at the termination of a long tube has been used for cleansing the parts by injections of Castile soap and water; and also for passing cold astringent solutions into the vagina, after the pessary is removed for the night. The vaginal walls are thus contracted, and the liability of the uterus to descend is obviated. If an astringent injection were to precede the introduction of the pessary, some difficulty would be experienced in passing the instrument into the contracted vagina; but it may be done advantageously afterwards, by adapting the short pipe of the syringe to the lower end of the tube, which passes through the pessary; and thus medicated applications may be made to the mouth of the womb, which rests in the cup at its upper outlet, as well as to the lining membrane of the vagina. My experience with this apparatus satisfies me that better results are attainable by its use, than by any other means which have been resorted to for the relief of relaxation of the parts connected with the uterus; but independent of these local appliances, measures addressed to the general system are requisite, and a wholesome regimen must accompany this, or any other mechanical treatment of prolapsus uteri.

The first patient that I treated on this principle was a negro woman, who had suffered greatly in a first confinement, and had, for seven years subsequently, labored under falling of the womb. When I was called to her, a very aggravated case was revealed. There was acute peritonitis, with the womb protruding beyond the vulva, and the everted vagina exhibited marks of previous abrasions and ulcerations. After a preliminary treatment for the peritoneal affection, emollient applications were made to the parts for several hours, and reduction was accomplished by pressing steadily and firmly with the palm of the hand against the mouth of the womb, until it was carried within the vulva; and then the pressure was continued by the ends of the fingers and thumb, until it was borne up nearly to its proper elevation. But the tendency to protrusion was so urgent as to require constant mechanical resistance, for which purpose I contrived an extemporaneous pessary, with a prop or stem, so that it could be secured by a T bandage. This met the emergency, and pessaries of various forms and dimensions were afterwards tried; but the sphincter vagina was so relaxed, that no ordinary pessary was retained for any length of time after the support was withdrawn, and I was compelled to have recourse again to the rude invention which had been adopted at the outset. For a few days after the application of this forcible support, there was considerable irritation, with some inflammation of the parts, and it was necessary to draw off the urine by the catheter; but this subsided, and the provisional stem pessary was borne without further disturbance.

In the meantime, various internal remedies and vaginal injections were resorted to, and after some weeks, an abdominal supporter was applied. After a treatment extending from September 19th to December 15th,

1851, she was dismissed, with instructions that no active service should be required of her; but her general health was now good, and the uterus retained its proper position without any artificial support. The relief proved permanent, and eventually the woman returned to her duties on her master's plantation, where I frequently saw her afterwards, and ascertained on one occasion, by an examination, that the uterus had not descended.

In reflecting on this case, it occurred to me that an apparatus might be constructed, embodying the stem-pessary and abdominal supporter, which would be available in the treatment of this class of diseases, and I then formed a model of a pessary with this view. But I did not succeed in my object until December of 1852, when I employed Mr. Heinz, who then pursued the avocation of a cutler in Columbia, to make the pessary, with a spring so arranged that it might be attached to the knobs on the front-piece of Chase's abdominal supporter. Chase's instrument did not meet my views in all respects for this portion of the apparatus, but I made it serve the purpose until I could have one made according to the plan detailed in the description of my instrument. The above combination was available at the time to test the principle, and confirmed my anticipations of success. One of the cases treated with it was in the person of a negro woman, who had borne several children, but had ceased for five years, during which time she had suffered with falling of the womb. Upon examination, the os tinæ was found at the vulval opening, and placing the patient in the recumbent position, I adopted the cup of the pessary to the organ, and by gradual pressure, succeeded in elevating it to the entire extent of the stem, which brought the end of the spring in contact with the labia. The other extremity of the spring was then secured to the front-piece of the supporter, which had been previously adjusted to the person of the patient. A cold astringent injection was introduced through the tube of the pessary, and the patient rose to her feet, expressing a sense of comfort while walking about the room. After a few days, I found there was very little tendency to prolapse when the instrument was temporarily withdrawn, and in less than a month it was entirely dispensed with, and no further trouble from this source has resulted.

It has been used in another case, of a delicate white woman, who had borne six children, and had a miscarriage when I was called to attend her. She informed me that she had been troubled with falling of the womb, subsequent to the birth of her previous child, and I inferred that her present accident resulted from this condition. After she recovered from the immediate effects of the abortion, the abdominal spring pessary was applied. She was soon able to attend to her ordinary household duties, and repeatedly walked the distance of two miles while wearing the instrument, being relieved by it from the dragging and bearing down pains, which annoyed her when she attempted any exertion without it. A general tonic treatment accompanied the use of the instrument, and the astringent injections were also resorted to for more than a month, when she felt that treatment was no longer required, and returned the instrument, with many expressions of satisfaction for the relief it had afforded her.

A negro woman, somewhat advanced in life, with the os uteri presenting at the vulva, and inducing trouble in urinating, has been recently under treatment; and although the external parts were very much relaxed, the womb was with considerable difficulty raised to its normal position and pressed downward, so as to keep the spring of the instrument in a state of constant tension. It afforded comfort at the time to the wearer; yet the force being kept up, caused some soreness and irritation on the third day, and the apparatus was temporarily suspended; but I subsequently examined the patient, and ascertained that the womb was restored to its proper position.

Two cases of ladies, with an ante-version of the womb to such an extent that the fundus was resting against the neck of the bladder, and causing a constant desire to urinate, while the os uteri was wedged in the cul de sac of the vagina, resting against the rectum, have been relieved of all the distressing features by the application of this instrument; and one of them has worn it continuously without removal for ten days, at different times, and no complaint has been made of irritation.

These patients continue to wear the apparatus, and express themselves more comfortable with it than without it; but I find that the womb does not assume its former unnatural position when the pessary is withdrawn, and I trust the result will be a permanent cure of the displacement.

The apparatus which is now in use has been slightly modified from the original instrument, but acts precisely on the same principle, and with a similar effect.

These cases show that the apparatus may be advantageously applied to the treatment of prolapsus uteri and anteversion; and my impression is, that it will be found available in most of the displacements of this organ which are met with in practice.

All deviations of the uterus from its normal position, are the result of an enervated state of the muscular organization, accompanied by relaxation of the suspensory ligaments of the womb, and the parietes of the vagina. Any measure which counteracts this atonic condition of the system, must be advantageous in the various malpositions of this organ; and, therefore, while I urge the use of this apparatus for the relief of prolapsus uteri, I suggest that it should be tested in other displacements of this organ. The apparatus may be readily applied by those who have patients of this description; and if the details of its application are recorded by the different members of the profession, it will bring together such a number of facts as to be entirely conclusive, and lead to a definite classification of those to which it is best adapted.

If the results of the treatment are forwarded to me, they will be presented to the next meeting of this body, with such observations as my further use of the apparatus may suggest.

