THE AMERICAN

JOURNAL OF OBSTETRICS

AND

DISEASES OF WOMEN AND CHILDREN.

VOL. XVII.] SEPTEMBER, 1884. [No. 9.

ORIGINAL COMMUNICATIONS.

A NEW METHOD OF UTERINE FARADIZATION.

BY

DR. G. APOSTOLI,

Paris.

(With 4 cuts.)

THE induced current as a therapeutic agent in uterine disease is beginning to enter as a factor into the practice of medicine. Opposition, technical ignorance, or the unwillingness to make a start are on the point of disappearing, and we can already foresee the day when the method shall have become classic. All that it lacks is official recognition, and I trust it will soon obtain this, for in France, unfortunately, we are under and we remain under the ban of authority. In order that a discovery may obtain scientific diffusion, real and lasting, it must needs have sanction from above. Such, in fact, is the history of the many innovations which have originated from amongst those whom I would call the "great irregulars" in medicine; and, to cite but one example: Do we not all remember that great ignored who was obliged to await almost his dying hour before his name and his deeds received scientific recognition, and who, alas! cannot be present at the apotheosis which hands formerly at enmity would now rear for him,

smothering him beneath their laurel wreaths? I refer to Duchenne, of Boulogne.

The chapter of the ignored is a long one in the world medical, and there exists, perhaps, another of whom I, more than any one else, can speak, as both pupil and friend; I mean Dr. A. Tripier. For twenty-five years he has written paper after paper, some more original and of a higher standard than others, and his recent book on the diseases of women is perhaps one of the most marked appearing during the past ten years. It is here that Dr. Tripier elaborates and generalizes the whole of his extensive experience in uterine electrotherapy. I say *his practice*, for it is his creation, absolute, and without opposition.[1] I will not attempt here a long description[2] of this book. I wish simply to call attention to an instrumental modification of his operative method, and at the same time to endeavor to clearly define the clinical importance it has, from my point of view. Tripier's method,[3] in short, even though its theoretical aim be a perfect one and its

FIG. 1.—Simple Uterine Excitor, or Mono-Polar of Tripier.

[1] Leçons Cliniques sur les Maladies des femmes. Par le Dr. A. Tripier. Paris, 1883. (Therapeutique générale et Application de l'électricité à ces maladies.)

[2] Vide my book on Technique Gynécologique (A. Delahaye and E. Lecrosnier, Paris), in which uterine electrization is described with many figures in the text, and with minute detail.

[3] "The method of uterine faradization varies according to the indications to be met. In simple congestion, it is my aim to provoke contraction of the entire uterus. We obtain this best by *abdomino-uterine* faradization. The patient, on her back, as for a specular examination, we apply above the pubes, on either side of the recti muscles, the electrodes, joined to a positive bifurcated rheophore, which close the circuit over the abdomen. *The uterine excitor* (Fig. 1) *is then introduced within the cervix, or even, when the external os is sufficiently open, pushed to the fundus*, passing it along the palmar surface of the index finger. To this excitor is joined the negative pole. The battery is then set in motion, beginning with a low current, and increasing the intensity progres-

clinical results incontestable, has suggested to me certain ex-

sively and almost continuously, being guided by the sensations of the patient, stopping the battery when the pain seems great, and beginning again as the pain diminishes. We can also act on the entire uterus by means of *sacro-uterine* faradization. The patient being placed in the same position as above, a metallic disk, covered with wet skin, is placed over the sacro-vertebral articulation. The negative rheophore is joined to a uterine excitor.

"This method, which requires neither the presence of an assistant nor the help of the patient, is the one I most frequently have recourse to in obstetrics, either to check hemorrhage or to promote involution.

"*Lumbo-pubic* faradization localizes the action less than the above-described methods. A large wet electrode is applied to the lumbo-sacral region and another above the os pubis. The former is attached to the positive pole, the latter to the negative. The patient is sitting, and the handles of the electrodes can be held by her. This is the method I use in case of virgins. It is practically serviceable in case of amenorrhea and dysmenorrhea. I often resort to it, the uterine method not being indicated, in the case of women at the time of the menopause to avert congestion of the lungs and of the brain. In such cases, the séances must be longer than when the object is to produce contraction of the uterus. At least five, or, better, ten minutes are requisite.

"Such are the methods which I ordinarily employ in order to cause contraction of the entire uterus or to bring about congestion of the pelvic cavity. I formerly used others which I will simply recall here without recommending them. For instance, it has happened that I have been consulted by ladies on the eve of their departure from town, and in consequence could give them only one or two séances, and in such cases I have introduced the negative sound within the uterus, and at the same time introduced one sound into the bladder and one into the rectum, the two being joined to a positive bifurcated rheophore. This recto-vesico-uterine method has the disadvantage of being relatively complicated and requiring the presence of a skilled assistant; and, finally, it does not always give rise to more energetic contractions than the methods which I have already indicated. Indeed, it is the pain caused by the contractions, or, rather, the pain felt beneath the external electrodes, which guides us in regard to the degree of intensity of the current to be used; therefore, by making the external excitor or excitors sufficiently large to cause the cutaneous pain to be sufficiently feeble, we have simply to take into account the uterine pain, which we can excite as much as it is useful, and prolong as long as the first séance requires, at which time the pain ordinarily is slowest in declaring itself.

"I have also, in case of great uterine congestion in the virgin, practised *recto-vesical* faradization, introducing first the vesical sound and then the rectal excitor. The uterus is thus fixed between two excitors, the one anteriorly and the other posteriorly. The presence of an assistant to operate the induction apparatus complicates this method, and the sounds are also easily displaced. It has given me good results. I recommend it, however, with diffidence. The *lumbo pubic* method will answer as well in the majority of cases."—Leçons cliniques sur les maladies des femmes. Par le Dr. A. Tripier, page 95. Paris, 1883.

periments which have led to a complete change in the technique of the operation.[1] These are the reasons for the change and their significance.

[1] The 20th of February, 1883, I presented to the Academy of Medicine the instrument which furnishes the subject matter of this paper (double uterine excitor), with the following description—Fig. 2:

"This instrument is intended to substitute double or bi-polar faradization, the two poles being within the uterus, for the method which up to to-day has been exclusively used, namely, uni-polar faradization, where one pole is within the uterus and the other most frequently on the abdomen. The new method, as simple in practice as the old, is destined to make the operation:

"1st. *Easier*, since the presence of an assistant is not necessary.

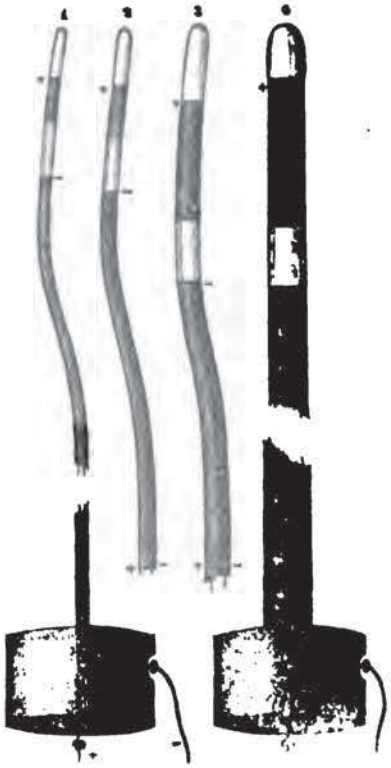

FIG. 2.—Double Uterine Excitors or Bi-polar of Dr. Apostoli.

(1) Small model.
(2) Medium model.
(3) Large model.
(4) Uterine excitor after confinement, and double vaginal excitor.

"2d. *Less painful*, since all application to the skin is done away with, and, in consequence, the pain caused by placing the electrodes over the pubes.

"3d. *More active*, since the action of the current is localized within the uterus, and we are thus able easily to use the highest electrical powers of medical batteries. which was only rarely possible formerly.

"4th. *More efficacious*, since uterine contractility is increased, and, in consequence, those therapeutic effects which are its direct results."—Gazette des Hôpitaux. No. 26, page 206, March 3d, 1883.

Whoever has often resorted to uterine faradization, and I think that after Tripier I have done so oftener than any one else, in number nearly several thousand, must have been struck by the opposition offered by certain patients, at times very great, and by the operative difficulties met with.

The method, in fact, is painful, and I am speaking now particularly of the utero-pubic or abdomino-uterine and sacro uterine[1] methods applied especially to the treatment of simple congestion and of metritis. It is at the cost of suffering that the patient attains amelioration and cure; but can we always draw the line? Such is the burning question. Tripier answers yes, and the fact that he is father to the method makes him perhaps deaf to the cries of his patients. And yet, to rebel a trifle against my teacher, my independence obliges me to confess that at times the method is *painful*, even *very painful*, and that in some patients it is *intolerable*. The pain indeed is a double one, for each electrode has its own, the one within the uterus and the other on the skin. We must consider each in turn.

Let us consider, in the first place, the uterine pole. Given the same faradic action, given the same electric intensity, and one uterus will behave very differently from another.[2] One patient bears the pain without complaint or opposition; another utters piercing shrieks, moves about, and at times renders any faradization impossible; between these two extremes we have every shade of behavior, and this is no surprising matter, knowing, as we all do, from experience, how differently women behave during the pains of labor, and how variable this factor is with all, varying markedly in the same woman at different times.

But the *uterine* is not the sole pain provoked by the electric current; side by side, and to a greater degree, ranks the *cutaneous* pain arising from the application of a pole, through

[1] That is to say, the most active of Tripier's methods, where one pole is always within the uterus and the other either above the pubes or over the sacrum.

[2] A special chapter of my Technique Gynécologique is devoted to this important question, clinically as well as therapeutically. I here consider the influence, respectively, of tension and electric quantity on the uterus. The differences in individual receptivity in health and disease. The irritable uterus of the ancients. I trace the general law of normal and pathological reactions and their varieties.

the medium of large tampons, most frequently above the pubes, at times over the sacrum. This pain is the most intolerable and acute, and I have, above all, endeavored to dispense with its necessity; for around it gravitate almost every objection, as well as each desideratum belonging to the method, as we will shortly readily perceive.

Again, whilst the method is in itself painful, a further objection is that the patient is obliged to hold within her hands the instruments of torture, as is the case in the *pubic* method.[1] At the hospital or at the clinic, assistants are always handy, but in one's office the patient, being alone, must perforce hold the tampons, and this entails a number of disadvantages. The minimum sensibility from the side of the skin is obtained by an energetic application of the tampons, the pressure being strong enough, even, and identical during the entire séance; any variation—if one tampon be lightly lifted or unequally applied—determines at once a considerable increase in the pain, because the cutaneous resistance becomes stronger, these two terms, cutaneous resistance and pain, being here considered proportionate.

The obligations thus laid on the patient, and which the operator cannot second, seeing that one hand holds the uterine sound and the other operates the battery, are thus at times beyond her power and render the perfect execution of Tripier's habitual operative method most difficult, the pain being in no sense lessened.

Is this all? No, indeed; and here follows the most annoying clinical result:

If the patient suffers, and at times unbearably, the operator can risk nothing, he must proceed slowly and with great care, and must limit himself to very small electric doses; or, since the uterine contractility is, in general, in direct ratio with the intensity of the electricity used, we can practically lay down the law—from a small dose (the proportions the same) results a small contraction, and this last increases with the intensity.

Therefore we are often obliged to face the following dilemma:

[1] My argument takes account particularly of the *utero-pubic* method, since it is the one which Tripier habitually uses, as being more powerful than the other methods.

Either cause pain at all hazards, in order to obtain the desired end—uterine contraction; or else cause as little pain as possible and render the operation almost illusory in its clinical and therapeutic results.

Such, then, in strict truth, is Tripier's method, perfect in its aim, but frequently lame in its method of action.

To resume now, uterine faradization applied to the treatment of simple congestion or metritis has consisted almost exclusively, up to the present, in the application of the *utero-pubic* or *abdomino-uterine*, at times the *sacro pubic* method.

Well! I claim that these methods are often *too painful* and, consequently, *difficult in execution*, and entailing often only a *partial result.*

Can we do better? I think so, and here is the modification I propose:

In place of unipolar faradization, exclusively used up to the present, a single pole being within the uterus, substitute double faradization, the two poles being within the uterus.

This is the sound[1] which I have had constructed; it is identical in shape and dimensions to Tripier's sound, the extremity of which is uncovered; but it differs in that this extremity contains two poles separated by a non-conducting material. The current enters, as usual, at the top of the sound, and its stem is composed of two metallic cylinders separated from one

[1] In Fig. 2 I show four different models, each of special value. Models 1 and 2 are oftener used and are daily applied by me to the treatment of metritis. The difference in thickness depends on the variable calibre of the internal os and cervico-uterine canal. Since the sound must be introduced with all gentleness, that one must be chosen which has the right calibre.

Model 3 is larger still and with a greater space between the poles. It is intended for the voluminous uterus with widely dilated canal, and for use either during the puerperium or to hasten involution.

Whilst it is important that the sound should not be too large, lest its introduction be difficult or do harm, it is equally important it should not be too small, for the two poles must be in contact with the walls of the uterus. This is my apology for the large sound. Model 4 is also, for the same reason, of use after delivery. It can also be used for vaginal faradization (one pole on the cervix or in the cul-de-sac, the other in the vagina). It must be used after this fashion in the virgin.

It will be noted that I have adapted to all my excitors a knob, which Tripier's instrument lacks. Thus they are more readily held, and the sound cannot slip from the hand.

another by a non-conductor, and each appearing separately, uncovered, at one of the metallic ends of the sound.

The manner of using it is identical with that of Tripier; the sound is introduced into the uterus and held as far as possible in contact with the anterior wall of the organ.

All the advantages accruing from this modification are at once apparent:

1. *Suppression of the cutaneous pole.*

2. *Concentration within the uterus of the entire electrical action.*

3. *Ease of operation, neither an assistant nor the patient being required to hold the tampons.*

4. *Diminution of pain, owing to the absence of any application of the current to the skin.*

5. *Wider applicability of the method, owing to its greater ease and completeness of execution.*

6. *Its greater efficacy, since the highest degree of uterine contractility is obtainable with ease and the least pain from the use of stronger currents, of greater intensity, and consequently more active.*

Clinical experience accords entirely with my theoretical expectations. For a long time, I have used this method exclusively both at my clinic and in my office, and many a time I have determined by comparison how much, in the first place, it is preferred by my patients, from the single fact that pain is thereby lessened, and that it is more convenient, and by how much, in the second place, it appears to *hasten the cure of metritis.*

This last consideration requires further comment. We all know the difference which exists between the contraction of smooth and striated muscular fibre, how active and immediate the one is, and how the other is often slow and tardy.

The contraction of the uterus when empty has been the subject of much discussion, more recently through the publications of Dembo and Onimus (*Académie des Sciences et Société de Biologie*). To deny its occurrence is, to my mind, to deny the evidence of one's senses, particularly when one has applied electricity to a number of women, and has recognized the contraction, as well as felt it at the end of the sound.

It is incontestable that the contractility is variable, both as

to time and as to intensity. With one woman, a few minutes are requisite for its manifestation; with another, it is present at once. The same differences are noted as to its strength and power. Thus, then, we have established the first clinical fact.

Experiments on animals have taught us another very interesting clinical fact, that this contraction rarely occurs *en masse*, as is the case with striated muscular fibre. It occurs, so to speak, from point to point, progressively at the outset, localized where applied, and thence spreading little by little, according to the electrical intensity, until the whole organ has become invaded.

From this fact, uniformly granted, is it not allowable, by way of analogy, to draw the following clinical consequence in the case of woman—that, by multiplying the points of current-contact, the electrical action is increased, and that, by concentrating the two poles within the organ, we will realize the greatest possible maximum action from a given dose? This conclusion, which I propose to prove by means of experiments on animals, clinical experience would seem to fully justify in woman, and so I believe that my method is *less painful* and *more active.*

As regards pain, I have learned something previously unknown to me, and which I can nowhere find noted; there is an absolute difference of *electrical sensibility* between the *body* and the *neck* of the uterus. Often have I made the following experiment: In the case of the same woman, I introduce my small sound up to the internal os; it thus is astride of the cervix by its two poles, and is not applied directly to the body of the uterus. I note the pain caused by a certain strength of the faradic current, and then, at the same sitting, without changing the current, I push my sound up to the fundus, so that its two poles are concentrated within the cavity of the body. The resulting change is constant and immediate; the pain, which was always acute enough with the cervix, became tolerable, and at times *nil* with the body; and if, inversely, the experiment be performed, passing from the body of the uterus to the cervix, pain immediately increases, as the patient tells us after a more or less energetic fashion.

This fact is of interest for more than one reason, and ob-

liges us, in order to obtain the minimum of pain and the maximum of action, to push the sound into the cavity of the uterus whenever it is possible.

As to the greater activity of this operative method, it is manifest to me, and besides easily understood when we consider that the current strength employed is frequently double that in use by the other methods.

In Tripier's method, the mean faradic current is the induction obtained by the withdrawal of one-half the coil from the apparatus which bears his name.[1] Rarely have I seen women support the maximum, and in this place I mean always the entire coil of *large and short wire*, or the quantity current, the only one of use in the treatment of metritis. As for the *fine wire* coil, it has far different indications and uses.[2]

In the method which I propose, the reverse is the rule; the maximum strength is often used, and only rarely, particularly when the sound is astride the cervix, am I satisfied with a medium dose.

But it may be asked, Is it useful to thus increase the electric intensity, and thus force the strength of the induced current?

I may answer shortly that, if uterine faradization has sometimes failed to cure metritis, it is on account of the weak application of the curative agent.[3]

To cite an example from obstetrics, uterine inertia, and in particular metrorrhagia, are more happily influenced by the doses I recommend than by those which are in daily use, and which, to my personal knowledge, have at times been insufficient.

Such is my method. Is it beyond reproach? Tripier, although ignorant of my experiments, has, by anticipation, made

[1] This apparatus is constructed by Gaiffe, and is run by two Leclanché tension elements. It has the advantage of giving an intensity at will from the zero to the maximum. It is the zero which it is important to use at the outset in uterine faradization.

See my Technique Gynécologique for a description and the respective advantages of the induction machines of *Trouvé*, *Chardin*, etc., etc.

[2] Consult my Technique Gynécologique for a full development of this question.

[3] In the treatment of perimetritis, I shall show, in a paper soon to appear, that we must proceed inversely both as regards electrical intensity and tension.

certain objections in the book he has just published. Here is his objection, and my answer follows:

After a description of the different methods of uterine faradization, he adds (*Leçons Cliniques*, page 99): "There is still another method of faradization, entirely uterine, which I will recall without recommending.

"In certain cases of prolapsus, where the congestion of the

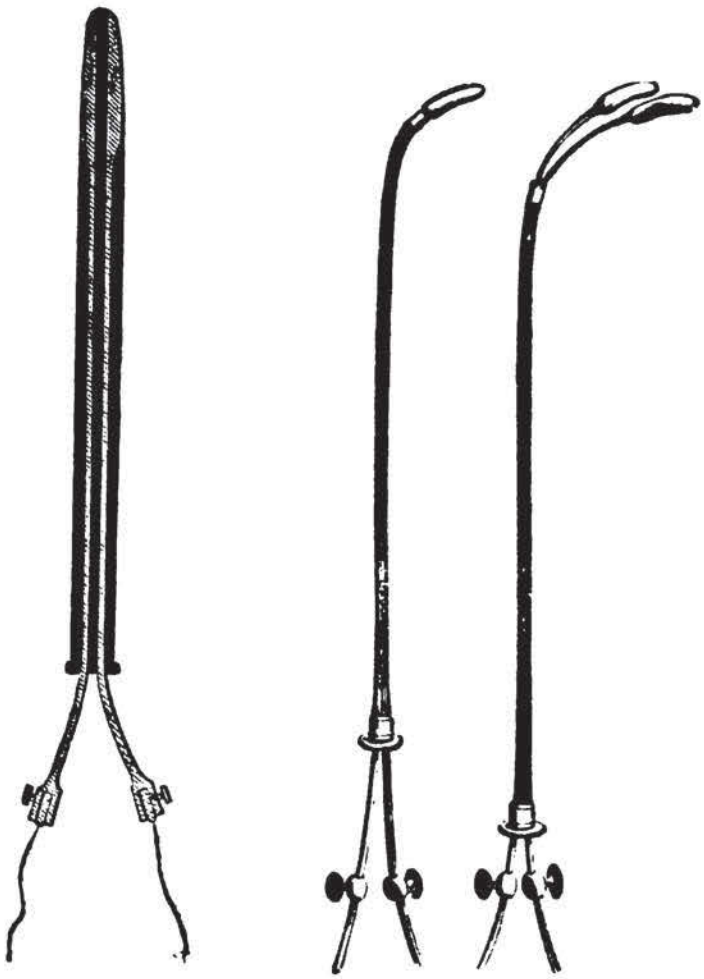

FIG. 3. FIG. 4.

FIG. 3.—Dr. A. Tripier's Double Uterine Excitor.
FIG. 4.—Double Uterine Excitor of Duchenne.

cervix was out of proportion to that of the body, and in other cases where the dilatation of the internal os was very marked, I have introduced both the electrodes within the uterus at times by means of a double excitor, shaped like the sound (Fig. 3), and again by means of an annular excitor fitting over the external os, in the interior of which slides a single uterine excitor.

"This method has the disadvantage of giving the patient very

unequal sensations. The two excitors being very near one another in a place where they are bathed by liquids, the currents are with ease derived unequally; whence variations in intensity, the more marked because, from the very fact of variation, it is necessary to employ stronger currents. This is a fault in the method which has led me to relinquish this manner of operating. There exist, indeed, no indications for total uterine contraction which cannot be met as well by *abdomino-uterine*, *sacro-uterine*, or *lumbo-sub-pubic* faradization. These methods are not at all or only a trifle painful (?); they are in application more convenient (?). Finally, it has not been proven that they are inferior in rapidity of result to those which I have just described to you. And so, after a trial of both, I would advise you to practise the first."

This criticism, however, applies only to the two instruments he describes and of which he is the inventor, and does not touch the third, the one I propose.

These instruments are in fact essentially defective, and the reason why they have been abandoned is explained by his own reasoning, as well as by the following:

His first double excitor, in shape like the sound (Fig. 3), has the great disadvantage of containing the two poles in the thickness of the sound only a few millimetres apart and almost touching one another; the current, therefore, is interrupted or suffers constant variations during the application, owing to the difficulty of holding the sound in place; for, at the least displacement, one pole will be in contact with one wall of the uterus.

His second excitor, the annular, one pole of which surrounds the cervix, has, in addition, the great disadvantage of being very painful, owing to its application to the cervix and the possibility of contact with the vagina.

My instrument, on the contrary, has the advantage of the two poles being far enough apart to prevent any variation or interruption in the electric intensity, attached as they are to the sides of the instrument.[1]

[1] I would compare the double excitors of Tripier to that of Duchenne (of Boulogne) (Fig. 4) which has the following objections: It is composed of two flexible metallic branches introduced within a double-current sound, and isolated. These two branches end anteriorly and superiorly each in a knob which are applied to the sides of the uterus. The other extremity is connected through screws with the apparatus generating

To obtain increased action, I have had several models constructed in which the poles are at variable distances, and which are also of different calibre.

Still further objections have been urged against my method. M. Thèvenot, in a recent communication, claims: 1. Whilst my method entails less suffering than Tripier's, this is not reason enough for abandoning the latter. 2. In Tripier's method the electrode is introduced into the cervix, in my method into the uterine cavity. Now, the uterine mucosa being most frequently diseased, the introduction into the cavity is often painful, and there is greater danger of harm being done than when the electrode is cervical. 3. It cannot be granted that the electrical reaction is concentrated within the uterus; on the contrary, this reaction spreads to the periuterine tissue, and thence acts favorably on chronic inflammations. Both Tripier and I, he says, seem ignorant of this, and apparently dread the action of the faradic current on tissues which have antecedently been inflamed. The future will prove them in the wrong.

I answer these objections categorically as follows: 1. A diminution of suffering is a great advantage. The woman fears pain, and hesitates to subject herself to a method entailing much suffering. That method which inflicts the least suffering will hence most likely become popular. In Tripier's method, it is the cutaneous electrode which provokes the greatest pain. This electrode is dispensed with by my method. Further, the truth is that the deeper the electrode is placed within the uterus the less the pain, and the cervix is more sensitive than the fundus. These assertions any one may prove by experiment.

2. If Thèvenot will refer to Tripier's book, he will find that in his method, as well as in mine, the electrode is introduced as deeply as possible into the uterine cavity, and only remains

the electricity. The rheophore, therefore, is entirely outside of the uterus and can only be applied to the cervix. Its essential fault, hence, is that all intrauterine action is eliminated, the very object aimed at. It further has the disadvantage of requiring the use of a speculum, not only for its introduction, but especially during faradization, in order to prevent contact of the poles with the vagina. The method is not an active one and is often painful; for, even though the vagina be protected whilst acting on the cervix, we are never sure we are not at the same time acting on one or another cul-de-sac.

within the cervical canal in those cases where it is impossible to pass the internal os. As to the dangers accompanying my method, they are none other than those which accompany the introduction of the uterine sound, and yet this is no argument against the use of the sound, an instrument so useful, and, in certain cases, so necessary to exact diagnosis. Similarly, for the cure of a chronic metritis, for instance, it is necessary the electrode should be introduced into the cavity, and, if this be carefully done, the chance of damage is slight. Of course, the method has at times been unsuccessful, but so has ovariotomy; and yet this is not sufficient reason for damning the operation. It is always well to remember that a method may be excellent, but the operator very bad. As for the fatal result following the application of the method to M. Tarnier's patient, it should be borne in mind that this patient had been subjected to the method several times without evil result; that, on the last occasion, the Cusco speculum could with difficulty be removed, and may have done injury; and finally, that this patient had been for months in the service without an exact diagnosis having been made, and that she may have been suffering from a latent periuterine inflammation which was re-awakened and rendered acute by the manipulation incidental to the specular examination and the application of the current. It is at any rate scarcely fair to throw the whole blame on the method. And finally, as to the danger of causing miscarriage by the application of the method: If the treatment be commenced as soon as possible after a menstrual period, and if the patient be impressed with the necessity of abstaining from intercourse during the treatment, and if we are careful always to eliminate, as far as possible, pregnancy in any case, then there is no more objection to the method on this score than there is to any other uterine application.

3. It is not claimed that the electrical reaction is concentrated within the uterus. On the contrary, the beneficial effect of the disseminated current on the periuterine tissue is recognized and aimed at. And, further still, it is hoped to prove clinically that we can and ought to faradize the uterus, under certain given conditions, even in acute inflammatory periuterine attacks.

And now to answer the objections of M. Onimus.

He claims that the electrode is too large, and yet he could hardly dream of a smaller one, since it is identical in dimensions to every hysterometer used in gynecology. M. Onimus would substitute another, his own, it is true, but for all that larger than mine. Another objection is that the electrode is difficult to introduce. So is the uterine sound; but it is supposed the operator will be familiar with the rudiments of gynecology before he attempts to practise uterine electrotherapy.

A third objection is that the double electrode is bad in principle, namely, both the poles are applied to the uterus. This objection is purely gratuitous. He makes no attempt to prove it.

Finally, I would say to my critics that my method depends for its results on the fact that through it the uterus is caused to contract quickly, safely, and to the greatest possible extent. It is a scientific fact that the uterus, even when empty, is capable of contraction. The faradic current can best cause this contraction. And yet M. Onimus is guilty of the following paradox, which is simply quoted without comment: In its ordinary state, that is to say, when empty, electric currents, as well the continuous as the induced, have a favorable action on the uterus, and this by stopping and by annulling the contraction of its muscular fibres!

And now is my method generally applicable? I believe that it is, if every precaution required by the method be taken.

For instance, we ought, during the entire treatment, to eliminate a possible pregnancy and to forbid all sexual intercourse.

But even pregnancy is not a contra-indication to the use of the method, as I intend to show later; there are even cases where the method is called for. Then our only care should be as to the position of the sound. *It must not be pushed into the uterus beyond the internal os.* It must remain within the cervix and be there held during the entire sitting, fixed by the index finger in the vagina resting on the posterior lip.[1]

[1] When the hand is not steady enough to use my method during pregnancy, recourse must be had to the *utero-sub-pubic* method of Tripier which is easier of execution. His sound having but one pole need not be pushed as deeply as mine, and it is sufficient to hold it by the index placed at the external os or pushed a trifle within.

In certain cases of *pronounced flexion* where the uterus is much congested and any replacement becomes painful and difficult, it is wise to make no attempt to penetrate, at all hazards, into the uterus. *A general rule, and an absolute one, is to beware of any violence;* faradization, which, after all, is simply a species of *therapeutic hysterometry*, will thus alone bear good fruit.

The sound should always be introduced *without the speculum*, along the palmar surface of the index finger which serves as a guide and rests in the vagina.[1]

It should be held lightly, should be pushed in *slowly, very slowly*, WITHOUT ANY EFFORT, *stopping at any obstacle* not easily passed.

Such, after all, is the secret of successful hysterometry.

In this paper, I have purposely avoided reference to Tripier's other methods of faradization applied to uterine versions and flexions, and known as the *recto-uterine* and *vesico-uterine*.[2]

My aim has simply been to describe an operative method applicable to the treatment of metritis, and one which is frequently indicated in *obstetrics* after *confinement*.

In a word, I have desired to do better, with *less pain* and *more quickly*.