

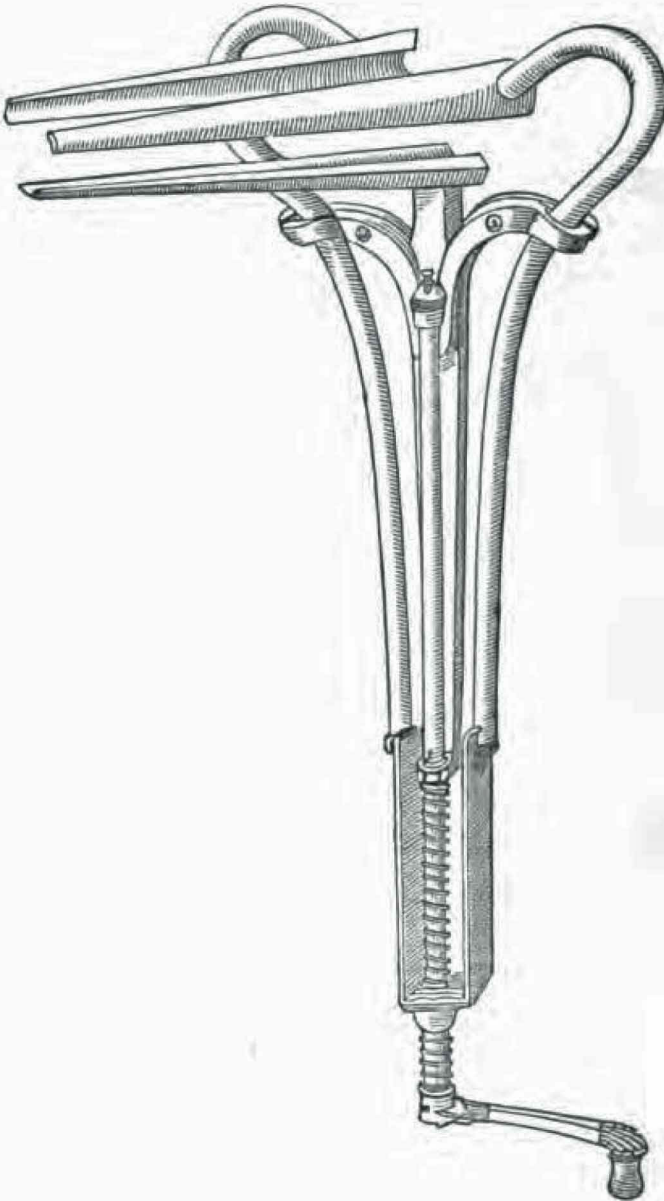
ART. II.—*Ancient Specula, and the Conical or Cylindrical Speculum of the Moderns.* By WM. R. WHITEHEAD, M.D., New York.

A GLANCE at some of the earliest specula known, may serve to form a proper appreciation of the excellences, or make more apparent the defects, of the modern instruments of this kind; and, at the same time, afford an occasion incidentally to offer a few remarks concerning the usefulness of the common round glass speculum.

In briefly alluding to some of the ancient specula, I propose to exhibit by wood cuts representations of two, which, from their remote origin and ingenuity of conception, are eminently deserving of notice.

Paul of Ægina, during the seventh century, was known for his knowledge and successful treatment of diseases peculiar to women, and described the speculum vaginæ under different names. Fabri-

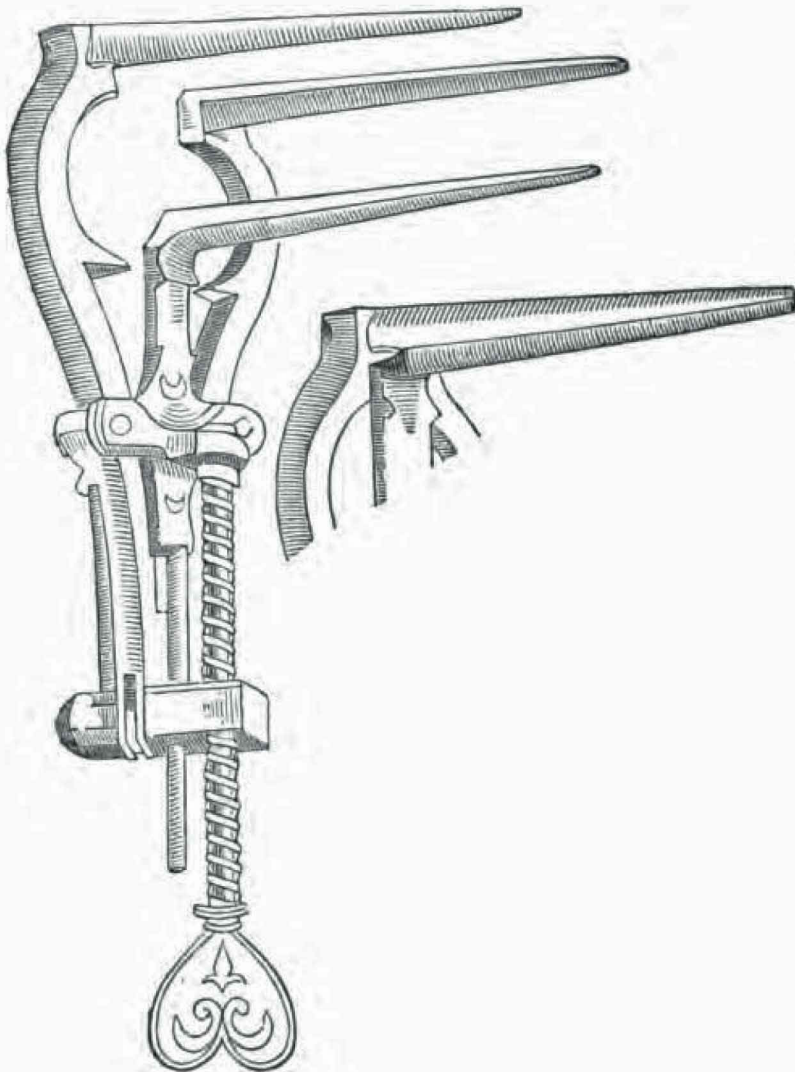
FIG. 1.



SPECULUM VAGINÆ, USED BY FRANCO, MORE THAN THREE CENTURIES AGO.

cius (ab Aquapendente), who wrote at a much later period, and was contemporary with Franco, held Paul in such high esteem as to rank him with Celsus ; and it is probable that the speculum attributed to Fabricius was either the same used by Paul, or suggested by his writings. Rhazis, in the tenth century, and Albucassis, in

FIG. 2.



SPECULUM USED BY AMBROISE PARÉ.

the eleventh century, described the *speculum vaginae*, as did Paul of Ægina, under the names *DIOPTRA*, *TORCULUM VOLVENS*, etc. Several centuries later, Franco, Paré, Scultet, and others, adopted the word *Speculum*, which is now the one generally used.

Fig. 1 represents the *speculum vaginae* used by Franco,* and which has been exactly copied from that surgeon's work. The instrument is sufficiently well exhibited to permit, by careful inspection of the drawing, to dispense with an explanation. Fig. 2 shows that used by Ambroise Paré,† and which may be seen in his work at page 997. The branches of this instrument were of the length of eight or nine fingers breadth; or proportioned to the age and size of the woman. These instruments were not essentially different from those found in the ruins at Herculaneum. They were somewhat similar to that of Paracelsus, in use during the early part of the sixteenth century, and were not very unlike that of Fabricius ab Aquapendente. The instrument of Fabricius,‡ however, had a cumbrous mechanism, with a right and left screw to move its three valves.

It is probable that Guillemeau, and afterward Mauriceau, Peu, and Viardel, were familiar with the *speculum* used by Paré; especially Guillemeau, the pupil of Paré, and the translator of his works into Latin.

The *speculum vaginae* gradually fell into disuse, however, to be again revived during the first half of

* *Traité des Hernies, etc.*, par Pierre Franco. p. 399. Lyons, 1561.

† *Œuvres d'Amb. Paré*. Paris, 1628.

‡ See the *Armanentarium Chirurgicum* of Seerig, published at Vienna.

the present century, as it had been revived during the times of Franco and Paré.

Récamier, who gave a new impulsion to the use of the speculum, preferred a simple conical tube of polished metal to the more complicated instruments of anterior date. Dupuytren modified Récamier's instrument by causing it to be made shorter and having a handle added to it, which addition was not generally considered an improvement.

Madame Boivin recognized the inconvenience attending the relative narrowness of the vulva orifice of the vagina, when it became necessary to dilate the upper part of this canal.* Her speculum, however, failed to obviate this inconvenience; and in dilating the superior portion of the vagina, the branches of the instrument were as equally expanded at the vulva as at that portion, and pressed painfully on those parts it was not intended or desirable to dilate too much. Jobert conceived the idea of dilating the uterine portion of the vagina by means of a speculum, which should correspondingly diminish in calibre, at the vulva, as the distal extremity of the instrument expanded. His speculum was composed of two segments of an articulated cylinder hinged together not very far from their uterine extremity. Ricord modified the speculum of Jobert by causing the hinge to be placed near the vulva extremity, and by the addition of handles the manipulation of the instrument was made more convenient. The branches of this bivalve speculum dilated the vagina in its lateral portions, and

* See Article on Speculum, Dict. de Méd. en vol. xxx.

permitted of operations on either the anterior or posterior vaginal septum; and this instrument was, until the introduction of Sims's speculum, the one generally used in Europe for vesico-vaginal fistula, or for operations on the cervix uteri. Jobert's speculum has undergone various modifications by the addition of valves or other attachments, which, in some instances, have increased, and in others impaired its usefulness.

The names of many physicians, [at present favorably known in the treatment of uterine diseases, are each associated with a speculum of peculiar shape. I am of the impression that each and all of these instruments have served very well in the hands of their originators; and have proved to be useful means of exploration with those who have acquired skill in their use. It is not my intention, neither my desire, to comment upon the relative merits of any of these instruments, but to express succinctly certain preferences in favor of the common round speculum as a usual means of exploration; which opinion I think justified; and, while I desire to uphold the usefulness of this simple and inexpensive instrument, I wish to be thought fully to appreciate the superior advantages of others where this is unsuitable. Moreover, having, in certain cases, experienced the want of a suitable instrument for the proper exploration of the female organs of generation, I have viewed with pleasure all attempts to attain this object. The glass cylindrical speculum, bevelled off at the inner end, coated with tin foil, and covered with india rubber, is a very portable and simple instrument, of facile use; and which, I believe, will meet the most frequent neces-

sities of the general practitioner. Exceptionally, however, this speculum cannot serve the purposes of exploration, or be used for the most important surgical operations practised in the vagina and uterus. But such operations do not form the major part of the treatment of womb diseases; and when complex operative procedures on the utero-vaginal region are required, other specula must supersede the cylindrical speculum. Difficult operations, on this region, are generally assigned to the dextrous hands of those possessing a special acquaintance with the subject; and, as the result shows, each one seems to have his particular speculum. The cylindrical speculum, as is well known, may be introduced very conveniently with the patient on the left side or on the back, and if required, under cover. The bevelled edge of the instrument is introduced between the labia, and parallel to them; the perineal commissure is gently pressed by a slightly rotating movement, and the vaginal sphincter being passed, the speculum enters without difficulty. The cervix, if not abnormally enlarged or too much displaced, will enter the field of the instrument. Sometimes this will not occur, but the amplitude of the upper part of the vagina may permit, without injury to the cervix, a slight rotating movement of the instrument, which will end in discovering the cervix, either ante or retro-flexed. The end of Sims's flexible metallic uterine probe, hooked into the cervical canal, may, without too much pain, cause the cervix to enter the speculum. If the cervix is too much displaced, the sound cannot be introduced through the speculum, but should be passed along the

finger, previously inserted into the vagina. The difficulty, of which some speak, of not being able to use the flexible sound through the cylindrical speculum, I have been usually fortunate enough to obviate by first shaping the sound to correspond to such a curve as a previous digital and bi-manual exploration may have discovered, at the first examination of the patient, to be necessary. The end of the sound, being passed through the speculum and inserted into the cervical canal, a certain lateral movement is imparted to the speculum if the patient be on the side, and a depressing or elevating movement if on the back ; and these movements should correspond to those of the sound held with the right hand. This kind of manipulation, with the proper curve to the probe, will frequently be sufficient to permit of a thorough examination of the uterine cavity by means of this instrument. When this cannot be done, the patient placed on her side or on her breast and knees, Sims's speculum being introduced and properly held, the cervix may be dragged down with a slender tenaculum and the uterine probe introduced. Recently, at the Northwestern Dispensary, with the Women's Department of which I am connected, not having Sims's speculum with me, I made use of an old disused tongue depressor to examine and manipulate a prolapsed and partially but badly inverted uterus. The house physician, Dr. Clark, kindly held the instrument for me while I attempted ineffectually to reduce the inversion, which was firm and immovable, resisting the pressure of the index fingers. I could not have desired a better view of the parts than I obtained

with this improvised speculum. No other instrument could have enabled me better to manipulate; but I was compelled to desist, and inserting into the vagina a large cotton plug, saturated with glycerine, sent the patient home to remain quietly in bed, to wait the good results of rest, position, and the soothing effects of the glycerine, to reduce the congestion of the parts. The cylindrical or conical speculum is very convenient for making various applications to the cervix, or to the interior of the cervical canal; for leeching the neck of the womb, or for local depletion by scarifications of this part. Sponge tents may with facility be inserted into the canal of the cervix through this speculum; which may also be advantageously used for fastening a pair of spring forceps to the protruding end of the tent previous to its removal and after the withdrawal of the speculum.

By scarifications of the cervix, made through the cylindrical speculum, from half an ounce to an ounce of blood may be withdrawn and removed by means of the well known long-pipe rubber syringe. If desired, the flow of blood may be still further increased by injecting warm water into the speculum.

In conclusion, it is proper to add, that this instrument can nearly always be conveniently held by the patient, thus dispensing with an aid.
