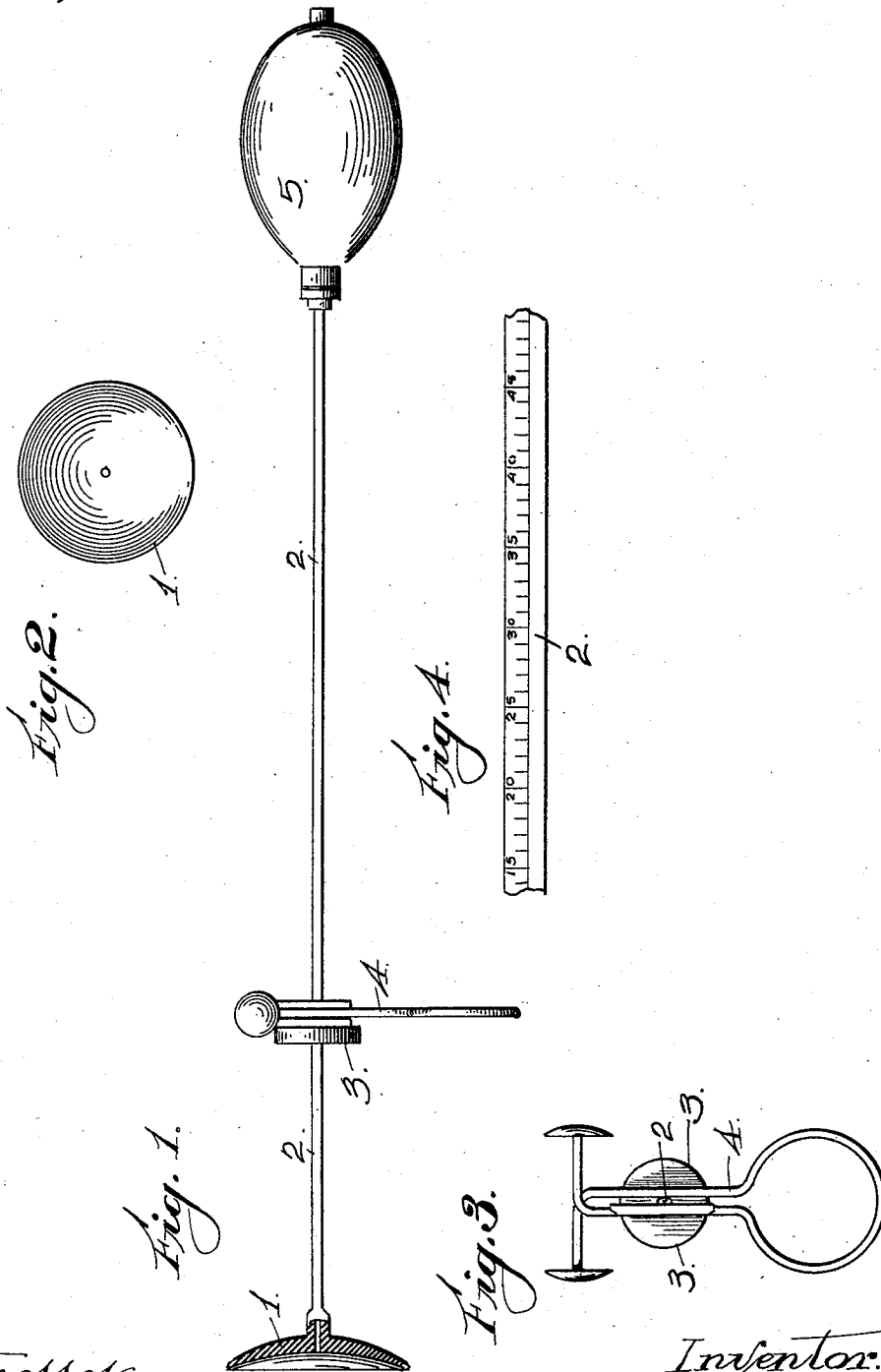


H. SPIRO.
 INSTRUMENT USED FOR DIAGNOSTIC PURPOSES IN OBSTETRICAL PRACTICE.
 APPLICATION FILED AUG. 28, 1911.

1,054,802.

Patented Mar. 4, 1913.



Witnesses:
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 Leon E. Prescott

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UNITED STATES PATENT OFFICE.

HARRY SPIRO, OF SAN FRANCISCO, CALIFORNIA.

INSTRUMENT USED FOR DIAGNOSTIC PURPOSES IN OBSTETRICAL PRACTICE.

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Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed August 28, 1911. Serial No. 646,486.

To all whom it may concern:

Be it known that I, HARRY SPIRO, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented a new and useful Instrument Used for Diagnostic Purposes in Obstetrical Practice, of which the following is a specification.

My invention relates to instruments to be used for diagnostic purposes in obstetrical practice and its object is to enable the attendant to determine the progress of labor.

For a full comprehension of my invention reference should be had to the accompanying drawings forming a part of the specification in which—

Figure 1 is a broken sectional view of my apparatus in its entirety. Fig. 2 is a front elevation of the flexible concave circular piece of rubber disclosing the suction hole in the center thereof. Fig. 3 is a side elevation of the spring clip and the gaging disk. Fig. 4 is a detail broken view of the stem showing the graduations thereon.

The numeral 1 is used to designate a flexible concave circular piece of rubber perforated in its approximate center, said perforation being in communication with a hollow graduated stem 2 secured to the back of the concaved rubber disk 1. A solid slidable rubber disk 3, perforated at its center, is mounted on the stem 2 and a spring clip 4 of any suitable design is secured to the hollow stem 2. A bulb 5 secured to the other end of the hollow stem 2 provides a means for removing the air from the flexible concave circular piece of rubber 1 while the spring clip 4 prevents the return of air to the said flexible concave circular piece of rubber by collapsing the stem 2 at any given point.

The accompanying drawings describe the instrument operated by a bulb at the end of the stem. If the instrument is operated without the bulb as herein described, the flexible concave circular piece of rubber is not perforated.

It is always a source of great danger to a prospective mother that she be too frequently digitally examined, during the progress of labor, by the doctor or attendant. It is, however, a necessity for the doctor to determine the progress of labor. By the use of my instrument, all digital examinations are reduced to the minimum, and the danger to the mother and the anxiety of

the doctor greatly lessened. This is accomplished by the doctor attaching the flexible concave circular piece of rubber to the presenting fetal parts as soon as convenient. The gaging disk is then moved along the stem or extension close to the maternal parts and a note taken of the graduation on the side of the stem. If, after a time, the gaging disk has moved away from the maternal parts, by reading the newly visible number on the stem, and comparing it with the number opposite the gage, the attendant can determine just how far the fetus has descended along the maternal passage, and how far the object to which the flexible concave circular piece of rubber is attached has still to travel. The gaging disk can then be adjusted by use of the spring clip and set again close to the maternal parts ready for further observation.

As it is necessary to press the flexible concave circular piece of rubber firmly against the presenting fetal parts, in order that it should adhere firmly, some obstetricians may prefer not to use any pressure. In that case a hollow extension, constructed as hereinabove stated with a rubber bulb at the end, may be used. The hollow extension is so attached to the flexible concave circular piece of rubber that there is one continuous passage through the center of both. When a suction is applied by means of compression and expansion of the bulb, the flexible concave circular piece of rubber will adhere to the desired object.

This instrument or apparatus is not to be used for traction.

In the foregoing description I have shown the preferred form of my invention, shape and character of the materials of each component part, but I do not limit myself thereto. As I am aware modifications may be made therein without departing from the spirit or sacrificing the conditions thereof, I, therefore, reserve the right to make such changes as fairly follow within the scope of my invention.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a rubber suction apparatus for diagnostic purposes in obstetrical practice, the combination of a flexible concave circular piece of rubber having fastened thereto, as an integral part, a stem or extension; said extension being graduated and having at

tached to it a movable gaging disk in the manner herein set forth and described.

2. In a rubber suction apparatus used for diagnostic purposes in obstetrical practice, the combination of a flexible concave circular piece of rubber, perforated in its center, having fastened thereto, as an integral part, a hollow stem or extension; said extension being graduated and having attached to it, at the opposite end, a rubber bulb and said extension also having attached to it a movable gaging disk; the suc-

tion being operated by compression and expansion of said bulb at the end of said extension, in the manner herein set forth and described. 15

In witness whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

HARRY SPIRO.

Witnesses:

ELEANOR L. WHELAN,
LEON E. PRESCOTT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
