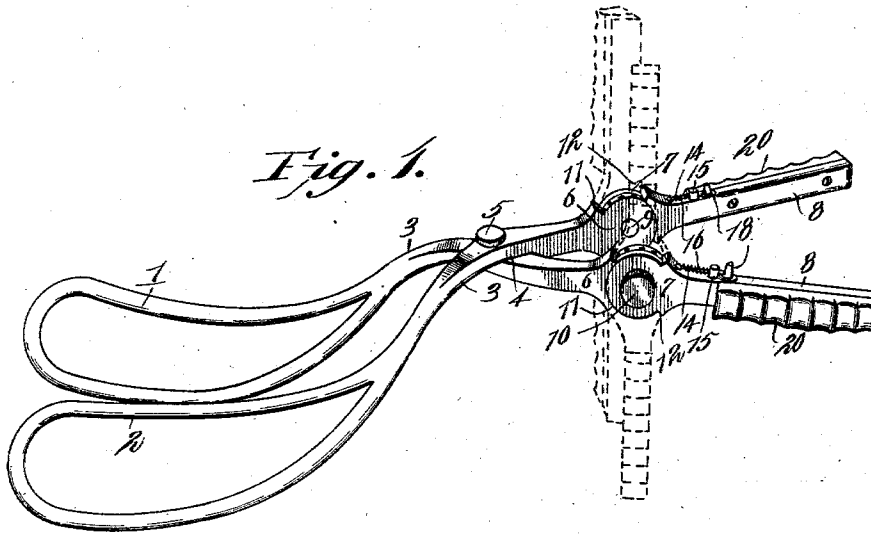
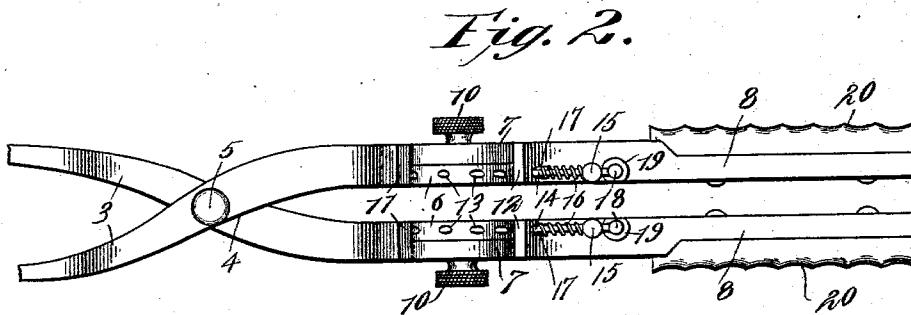
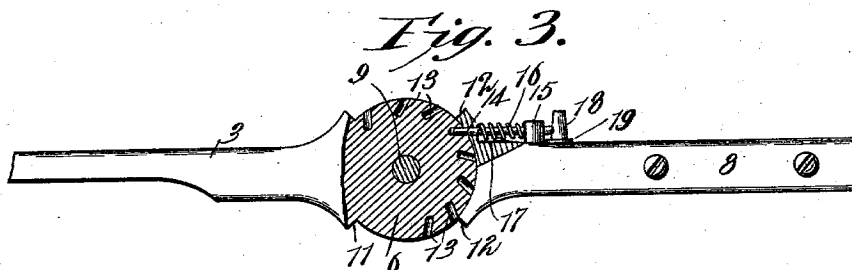


No. 746,791.

PATENTED DEC. 15, 1903.

J. A. CLIFTON.
OBSTETRICAL FORCEPS.
APPLICATION FILED JUNE 24, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JESSE A. CLIFTON, OF ORANGEBURG, SOUTH CAROLINA.

OBSTETRICAL FORCEPS.

SPECIFICATION forming part of Letters Patent No. 746,791, dated December 15, 1903.

Application filed June 24, 1903. Serial No. 162,928. (No model.)

To all whom it may concern:

Be it known that I, JESSE A. CLIFTON, a citizen of the United States, residing at Orangeburg, in the county of Orangeburg and State of South Carolina, have invented a new and useful Obstetrical Forceps, of which the following is a specification.

This invention relates to obstetrical forceps; and the object of the same is to provide a device of simple construction for permitting the grips or handles to be adjusted in the plane of the blades at varying angles to the blades, and thus render the instrument more effective and convenient in artificial deliveries and to meet particular or peculiar deliveries, presentations of the fetus without injury to the patient or child, and admitting of an upward and downward traction at the same time or without necessitating a relaxation of the grip on either handle of the forceps.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a pair of forceps embodying the features of the invention. Fig. 2 is a top plan view of a portion of the same. Fig. 3 is a section through a portion of one of the handles.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numerals 1 and 2 designate the usual or any preferred form of blades having rearwardly-extending handles 3, which are crossed, as at 4, and pivotally connected by a fulcrum-screw or analogous device 5. The rear ends of the handles terminate in circular coupling members 6, which are about one-half the thickness of the said handles and have their inner faces flush with the inner sides of the latter to thereby form outer recesses to receive similar coupling members 7 at the front terminals of grips 8, the said latter members being movable and adjustable with respect to the former, and each pair of members is adjustably connected by a clamping-screw 9, having an outwardly-projecting milled head 10. The upper and lower portions of the handles adjacent to the members 6 are formed with shoulder extensions 11, which extend the full width or thickness of

the handles, and the front portions of the grips adjacent the members 7 thereof are in like manner provided with similarly-positioned shoulders 12 to abut against the upper and lower shoulders of the handles when the said grips have reached their upper and lower maximum adjustments.

It is necessary to rigidly hold the grips in their adjusted positions in order to make them effective, and for this purpose the members 6 are provided with spaced peripheral sockets 13, extending inwardly in tangential lines, and coacting with the sockets are horizontally-disposed sliding pins 14 on the grips, the pins being movable through upper shoulders 12 and through upstanding guides 15 in rear of the said shoulders, and surrounding each said pin between the guide and shoulder is a coiled spring 16, the shoulder being cut away, as at 17, to give place to the spring. The rear end of the pin is fixed to a vertically-disposed thumb-piece 18, which has its lower end provided with a flange 19 to give an extended slidable bearing on the upper edges of the grips. By this means the grips can be held in longitudinal alinement with the handles or adjusted to different degrees above and below a horizontal plane. The tangential arrangement of the sockets 13 permits them to be successively brought into alinement with the openings through the upper shoulders 12 for accurate engagement with the pins, and thereby effect a retention of the adjustment of the members 6 and 7 until the clamping-screws have been set.

So far as known in all forceps as heretofore constructed and embodying adjustable handles or grips the maximum axis traction that could be obtained was ninety degrees, and the leverage thus obtained was confined to a quarter-circle below the normal position assumed by a pair of forceps while in use. In the present improved instrument the radius of movement is ninety degrees below and the same number of degrees above the position of the handles, and it is also possible to have the grips assume any desired traction position in the one hundred and eighty degrees by the adjustment of the pins and clamping-screws. Consequently simultaneous lines of traction can be obtained in the improved forceps heretofore described that cannot be ac-

quired in any other instrument now in use and admitting of an upward and downward traction at the same time without releasing the hands from either grip of the forceps.

- 5 The milled screws connecting the members can be removed very quickly and the parts can then be readily cleaned. It is also proposed to apply coverings 20 on the outer sides of the grips of suitable material and having
10 transverse corrugations to prevent the hands of the operator from slipping.

Having thus described the invention, what is claimed as new is—

1. Obstetrical forceps having handle portions adjustable in the plane of the width of the forcep-blades above and below a horizontal plane, and means for locking said handles at intermediate points between their upper
20 plane.

2. Obstetrical forceps comprising a pair of pivoted blades, and handle members connected thereto, the pivotal connections of the handles being in a plane approximately at a right
25 angle to the axis of the blade-pivot and both handles being adjustable both above and below a horizontal plane.

3. In obstetrical forceps, the combination with blades, of handles pivotally connected
30 and having rear terminal coupling members and adjustable in the plane of the width of

the blades, grips having similar front terminal coupling members pivotally connected to those of the handles, and means for locking the grips in adjusted position.

4. In obstetrical forceps, the combination with blades, of pivoted handles having rear terminal enlargements of circular form to provide coupling members which have peripheral sockets, grips provided with similar coupling members at their front ends and pivotally connected to the members of the handles, and spring-actuated pins carried by the grips to engage the said sockets of the handle members.

5. In obstetrical forceps, the combination with the blades, of pivotally-connected handle members, interlocking shoulders for limiting the movements of the handles, there being spaced longitudinal sockets on the blade
50 members, and slidable pins carried by the handles and adapted to engage the sockets, each pin having a thumb-piece near the base of its carrying-handle.

In testimony that I claim the foregoing as
55 my own I have hereto affixed my signature in the presence of two witnesses.

JESSE A. CLIFTON.

Witnesses:

TOM F. BRANTLEY,
HENRY F. JENNEY.