(No Model.)

C. HIMROD.

EMBRYOTOME.

No. 523,348. Patented July 24, 1894.

Fig. 1

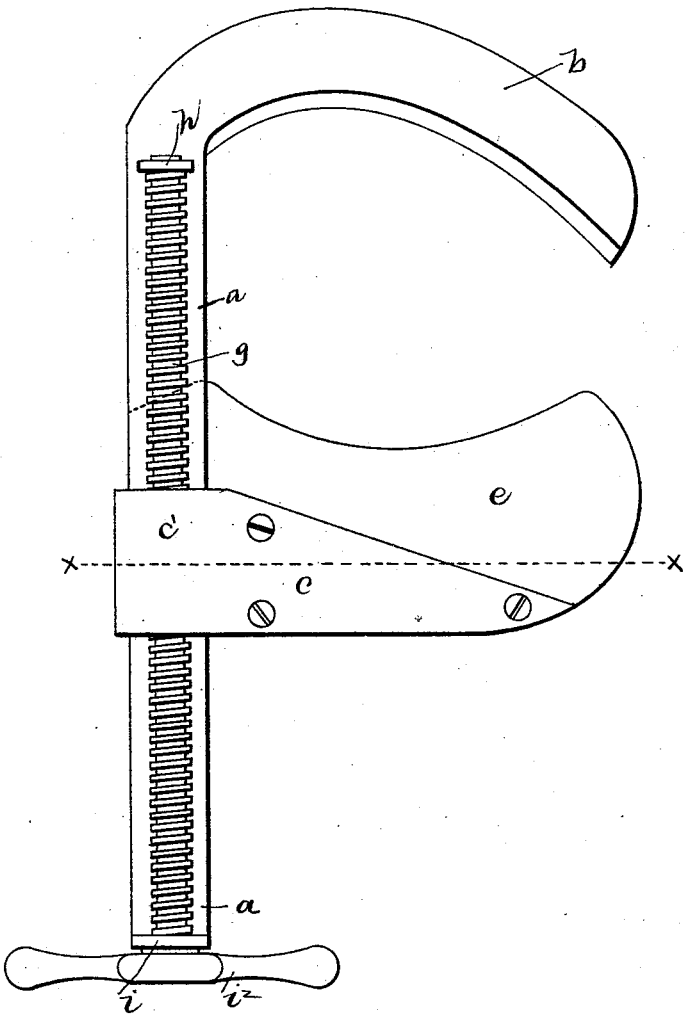
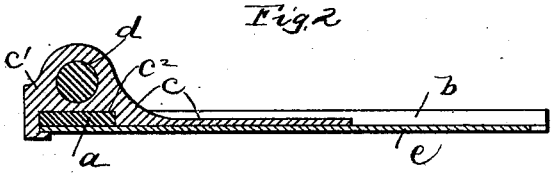


Fig. 2



WITNESSES:

C. B. Bradshaw

A. L. Phelps

Charles Himrod

BY

Staley and Shepherd

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES HIMROD, OF LANCASTER, OHIO.

EMBRYOTOME.

SPECIFICATION forming part of Letters Patent No. 523,348, dated July 24, 1894.

Application filed August 24, 1893. Serial No. 483,896. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HIMROD, a citizen of the United States, residing at Lancaster, in the county of Fairfield and State of Ohio, have invented a certain new and useful Improvement in Embryotomes, of which the following is a specification.

My invention relates to the improvement of that class of surgical instruments which are employed in the practice of embryotomy.

The objects of my invention are to provide a simple, reliable and convenient instrument, or tool of this class, by means of which the members or parts of a fetus may be severed to facilitate the withdrawal of the body from the womb, and to produce improvements in the construction of said device which will be more fully explained hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a plan or face view of the device showing the jaws open for use and Fig. 2 is a transverse section on line *x x* of Fig. 1.

Similar letters refer to similar parts throughout the several views.

a represents a straight bar or stem which, at its outer end terminates in a substantially hook shaped curved blade on jaw *b*, the inner edge of which is sharpened.

c represents a knife carrying arm, the inner and enlarged end *c'* of which is notched or recessed on its under side at c^2 to fit over the bar *a* on which it is adapted to slide. The upper portion of said enlarged end *c'* above said bar is provided with a horizontal threaded opening *d* there through which extends in the direction of the length of the bar *a*. This knife arm *c* has secured to the under side thereof an outwardly and forwardly extending knife blade *e*, the forward edge of the latter being sharpened and curved or concaved. The heel or inner portion of the blade or jaw *e* extends beneath the bar *a* and covers the under side of that portion thereof which is within the recess c^2. The knife blade *e* is supported in such plane that when the blades *b* and *e* are driven toward and past each other, the sharpened edges thereof will shear against each other.

g represents an operating screw which extends in the direction of and above the bar *a*, said screw passing through and engaging with the internal threads of the opening *d*.

The forward end of the screw *g* is unthreaded and is journaled in a suitable bearing lug *h* which raises from the forward end of the bar *a*, while the rear end of said screw has a similar bearing in a lug *i* which raises from the rear end of the bar. On the outer side of the bearing *i* the screw carries a suitable transverse handle piece i^2.

The operation and manner of utilizing my invention is substantially as follows: The instrument formed as above described and having its knife jaws separated the desired distance, is inserted through the vagina into the womb and the curved jaws caused to embrace a limb or other member of the fetus to be severed. The screw *g* is then so turned as to cause a forcing together of the jaws *b* and *e* through the sliding forward motion thus imparted to the latter. This movement results, as will be seen, in the gradual cutting or severing of the member embraced. The limbs and similar projections thus removed, the extraction of the fetus may be performed without difficulty.

It is evident that although particularly adapted for use with livestock, the device herein shown may be employed to advantage in all cases where embryotomy is practiced.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In an embryotome the combination of the bar *a* having a substantially hooked shaped knife termination *b* at the outer end thereof and lugs *h* and *i* on the side of said bar, and an operating screw journaled in the lugs on said bar, with a knife blade *e*, the shank or supporting arm of which is screw tapped and adjustably mounted on said screw substantially as described.

CHARLES HIMROD.

In presence of—
C. C. SHEPHERD,
FRANKLIN RUBRECHT.