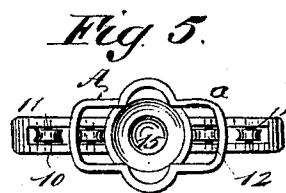
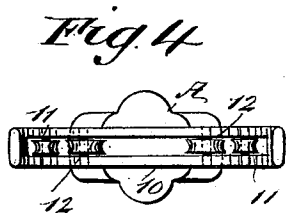
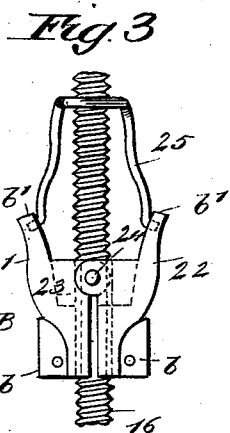
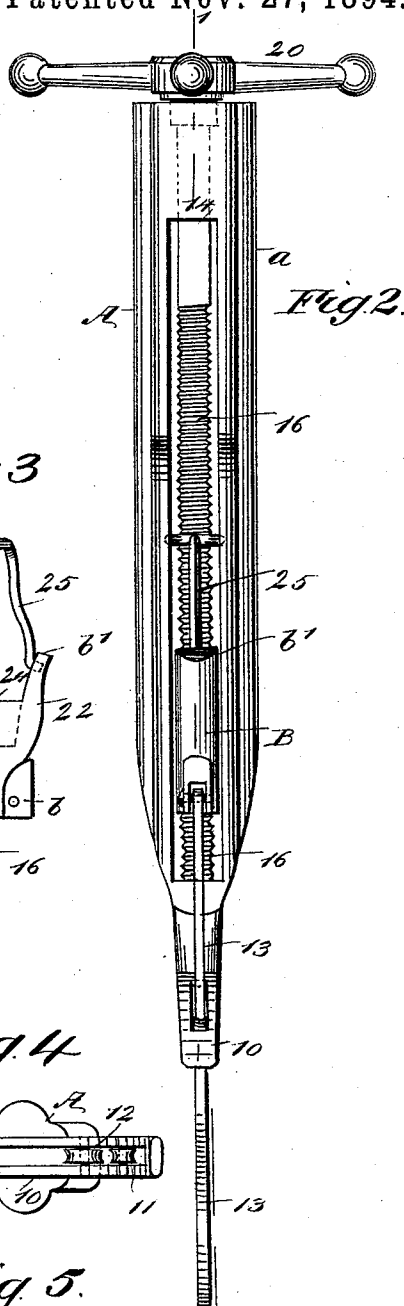
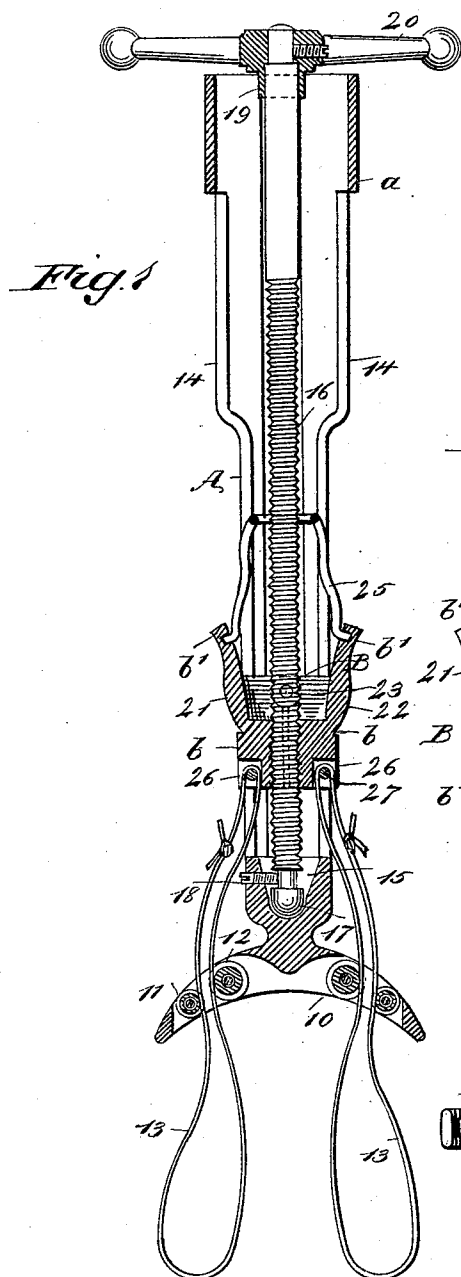


(No Model.)

M. McNALLEY.
ECRASEUR.

No. 529,936.

Patented Nov. 27, 1894.



WITNESSES:

F. McArdle.
C. Sedgwick

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

MICHEAL MCNALLEY, OF ST. LOUIS, MISSOURI.

ECRASEUR.

SPECIFICATION forming part of Letters Patent No. 529,936, dated November 27, 1894.

Application filed December 20, 1893. Serial No. 494,171. (No model.)

To all whom it may concern:

Be it known that I, MICHEAL MCNALLEY, of the city of St. Louis, in the State of Missouri, have invented a new and Improved Castration-Ecraseur, of which the following is a full, clear, and exact description.

My invention relates to a gelding device, involving ligatures attached to an adjustable holder.

The object of the invention is to so construct the ligature holder and operating devices connected therewith, that the operation of contracting the loop up to the point where forcible contraction becomes necessary, may be accomplished in an expeditious and convenient manner, and whereby when the loop is to be tightened upon the part being operated upon, a slow and forcible operation of the ligatures may be obtained with exceedingly simple mechanism capable of ready manipulation.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal vertical section through the complete device, the section being taken practically on the line 1—1 of Fig. 2. Fig. 2 is a side elevation of the complete device. Fig. 3 is a side elevation of the ligature holder and a portion of the manipulating screw. Fig. 4 is a bottom plan view of the casing or body of the device; and Fig. 5 is a plan view of the said casing, the screw stem being removed.

In carrying out the invention the body or casing A of the device is preferably made somewhat cruciform in cross section at its upper end and for a portion of its length, as shown at *a* in Figs. 1, 2, and 5, the same shape being preferably preserved throughout the remainder of its length, but this latter portion is made preferably of less width or diameter in one part than the upper portion, preferably in direction of the sides. The casing is made to terminate at its lower end in a shoe 10, and the said shoe is usually of seg-

mental or crescent shape, the concaved surface being the outer surface. This shoe is provided at each side of its center with two friction rollers 11 and 12, and between these friction rollers the bands or ligatures 13, are made to pass, the upper ends of the bands or ligatures being secured to the holder B to be hereinafter described.

The bands or ligatures may be of any desired material, as for example they may be made of stout cord, cat-gut, or a strong tape, or they may be made of chain or wire. The body or casing A, is provided in each side with a longitudinal slot or opening 14. This slot or opening extends from a point near the top to a point near the bottom of the casing, and in the bottom portion of the body or casing a socket 15 is made, preferably somewhat conical in shape, its lower contracted end being concaved or rendered somewhat semi-circular, as illustrated in both Figs. 3 and 5.

A screw stem 16, is entered into the body, and the lower end of the said stem is provided with a semi-circular head 17, adapted to enter the correspondingly shaped seat in the socket 15 of the casing; and above the head an annular groove is produced in the screw stem, in which a screw 18 enters, the said screw being passed through the casing, as shown also in Fig. 1. This screw admits of the screw stem being turned freely, yet the stem can not be disengaged from the casing unless the screw is substantially removed. The upper end of the stem, which extends out through the end of the casing is provided with a guide 19, bearing upon or fitted in the upper portion of the casing, and the upper extremity of the said stem is preferably provided with a hand wheel 20, or the equivalent thereof, through the medium of which the stem may be revolved.

The holder B comprises virtually two jaws 21 and 22. These jaws consist of a body section *b* and wing sections *b'*, which extend upward and outward from the upper portion of the body; in fact from a point near the center of the body of each jaw the entire jaw is flared at its outface upwardly and outwardly, whereby the holder when the jaws are closed is considerably wider at its upper end than at its lower end, as shown in Fig. 3. The body portion of each jaw at the top is provided with a recess

or pocket 23, and the two jaws are pivotally connected by pivots 24, located one at the front and the other at the rear face, the pivots being placed at the upper central portion of the body of the holder. The two jaws are held together at their lower ends, and the wings are made to flare outwardly in opposite directions through the medium of a spring 25, which spring preferably consists of a collar and members projected downward from the collar, the members being secured to the inner faces of the wing sections of the holder, as is likewise shown in Figs. 1 and 3. The meeting or opposing faces of the body portions of the jaws are rendered semi-circular and threaded, whereby when the two jaws are in contact at their lower ends a circular opening having threaded walls is obtained, receiving the thread of the screw stem. Therefore, when the jaws are closed around the screw stem, which is their normal position, and the stem is manipulated, the jaws will travel upward or downward upon the stem as may be desired, while the ring portion of the spring 25 serves as a guide for the screw.

The ligatures 13 are secured at their upper ends preferably in recesses 26, formed in the outer side surfaces of the lower portions of the body of the jaws, pins 27 being passed through the recesses, over which the ligatures are passed as illustrated in Fig. 1.

In the operation of this device, the loop in the ligatures may be brought to the desired points or reduced until it properly engages with the part to be operated upon, by simply pressing inward the wing sections of the holder, since said sections are made to stand out through the slots in the casing, and the holder is free to move vertically within the casing. By pressing inward the wing sections of the holder the jaws are carried out of clamping contact with the screw stem, and the holder may be readily and conveniently carried in direction of the inner end of the casing, which will rapidly reduce in size the

forward ends of the loop. This first adjustment having been obtained, the loops can be drawn still smaller and hence tightened upon the part to be operated upon, by releasing the wing sections of the holder and permitting the jaws to engage with the screw stem, whereupon the more slowly acting but more forcible operation of the said screw stem will be brought to bear upon the holder.

It will be understood that instead of two ligatures, a single one may be employed when it is desired to excise a tumor or a single testicle.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a gelding device, the combination with a slotted casing, and a screw stem held to revolve in the casing, of two jaws pivoted together, each jaw consisting of a body section having its inner face threaded and a wing section projecting out through the slots of the casing, a spring encircling the screw stem and having its ends engaging the wings of the jaws, and ligatures, one attached to each jaw, substantially as described.

2. In a gelding device, the combination with a slotted casing provided at its lower end with a shoe projecting from opposite sides thereof and having openings therein, and a screw stem held to revolve in the casing, of two pivoted jaws held to slide in the casing, each jaw consisting of a body section having its inner face threaded and a wing section projecting through the slots of the casing, a spring for holding the body sections of the jaws in engagement with the screw stem, and ligatures, one secured to each jaw and projecting through the openings of the shoe, substantially as described.

MICHAEL MCNALLEY.

Witnesses:

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JNO. T. FIELD.