

July 15, 1924.

1,501,366

F. PETERSON
ANIMAL RINGING TOOL
Filed May 14, 1923

Fig. 1.

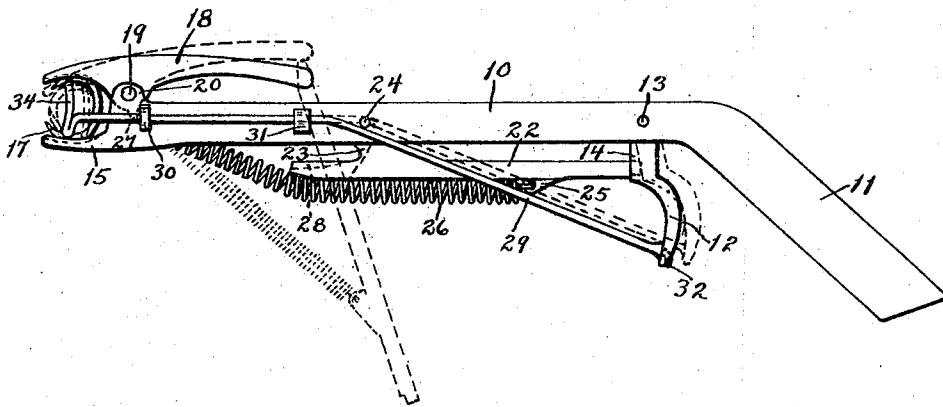


Fig. 2.

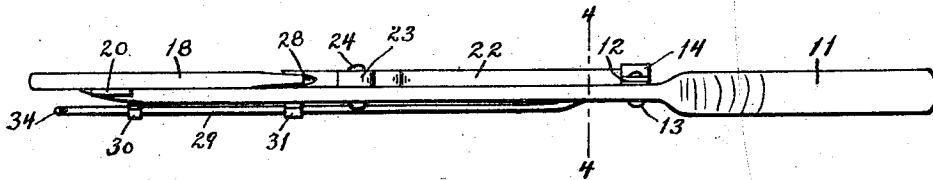


Fig. 3.

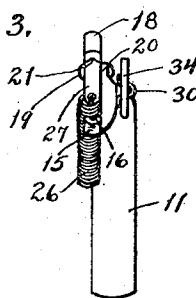
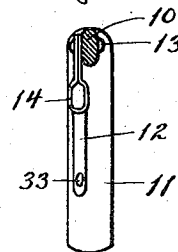


Fig. 4.



INVENTOR
FRANK PETERSON

BY *Carl M. Sinclair*
ATTORNEY

Patented July 15, 1924.

1,501,366

UNITED STATES PATENT OFFICE.

FRANK PETERSON, OF POCAHONTAS, IOWA.

ANIMAL-RINGING TOOL.

Application filed May 14, 1923. Serial No. 638,891.

To all whom it may concern:

Be it known that I, FRANK PETERSON, a citizen of the United States of America, and resident of Pocahontas, Pocahontas County, Iowa, have invented a new and useful Animal-Ringing Tool, of which the following is a specification.

The object of this invention is to provide an improved tool for use in applying rings to the noses or ears of domestic animals such as swine and cattle.

A further object of this invention is to provide an improved construction for a tool for conveniently, rapidly and surely applying rings to the noses of swine, and also for attaching marking tags to the ears of animals by means of rings.

A further object of this invention is to provide a ringing and marking tool in which the ring is mounted and positively held by the tool, previous to the application, and the tool may be manipulated and moved to different positions and even laid down without danger of accidental release of the ring.

A further object of this invention is to provide a ringing and marking tool in which a spring-pressed lever acts surely and positively to close the jaws and compress the ring.

A further object of this invention is to provide a ringing and marking tool in which a spring-pressed lever acts surely and positively to close the jaws and compress the ring, said lever being set under tension by engagement with a trigger.

A further object of this invention is to provide means for releasing the trigger by simply moving the tool forward against the nose of an animal and into position for applying the ring in the proper place.

With these and other objects in view, my invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

Figure 1 is a side elevation of my improved tool, the movable parts being shown in set position by full lines, and by dotted lines in a position where they have moved nearly to the point of rest after being sprung, and at the point of completion of the act of closing the jaws and compressing the ring. Figure 2 is a plan view of the device in set position. Figure 3 is an end view

in the same position, and Figure 4 is a cross-section on the line 4—4 of Figure 2.

In the construction of the device as shown a bar 10 is formed at one end with an integral handle 11 extending at an angle and adapted to be grasped manually in the manner of a pistol for use. A trigger 12 is pivoted on a pin 13 to the bar 10 at a point near the handle 11 and is adapted for engagement by a finger of the operator at times. Between its free end and pivot the trigger 12 is formed with a forwardly facing yoke or loop 14 forming a seat for engagement with another member. At its forward end the bar 10 is cut away on its upper face to form a jaw 15, which is longitudinally grooved on its upper face at 16 and is adapted to form the lower and rigid member of a pair of jaws adapted to hold a ring such as 17. The upper member of the jaws consists of a jaw lever 18, pivoted between its ends on a pin 19 extending through an upwardly projecting ear 20 on the bar 10 near the jaw member 15. The outer end of the jaw lever 18 is grooved longitudinally on its lower face at 21 and is adapted to co-operate with the rigid jaw member 15 in holding the ring 17. An operating lever 22 is formed between its ends with an ear 23 which is pivotally connected by a pin, rivet or screw 24 to the bar 10 approximately midway between the ends of said bar.

One end of the lever 22, of greater length than the other, extends downwardly or at times rearwardly, and when extended rearwardly in a position substantially parallel with, and beneath, the bar 10, said longer end is adapted to be received within and held by the looped seat 14 of the trigger. The operating lever 22 is formed between its pivot 24 and its lower or rearward end with an ear 25, projecting from its forward or lower face, and a retractile coil spring 26 is fixed at one end to said ear. The forward end of the spring 26 is secured to an ear 27 extending downwardly from the jaw lever 18 just back of the pivot 19.

To set the tool the operating lever 22 is oscillated manually to the position shown by solid lines, placing the spring 26 under considerable tension, the trigger 12 being oscillated sufficiently to permit introduction of the rear end of the lever to the yoke or loop 14, the tension placed on the lever by the spring serving to maintain such engagement when once made. The tension of the

spring 26 also applies some strain on the jaw lever 18, tending to move its forward end downwardly toward the rigid jaw member 15. This strain, however, because of the leverage, is much less than that on the lever 22, and is sufficient to hold in place the ring 17, which may be placed between the jaw members either before or after the operating lever is set, with its open side facing forwardly ready for the ringing operation. When the operating lever is released, by rearward movement of the trigger, the spring 26 acts to move its rearward end forcibly through an arc toward the position indicated by dotted lines in Figure 1. In such movement the forward or shorter end of the operating lever engages the rear end of the jaw lever 18 and oscillates the latter, moving its forward end downwardly and applying pressure upon the ring 17 sufficiently to close said ring and cause its points to penetrate a member which may be interposed between said points, such as an ear or portion of a nose of an animal. The forward end of the operating lever 22 preferably is longitudinally grooved on its upper face to receive and have a sliding or wiping contact with the rear end of the jaw lever 18, which is slightly curved or rounded on its lower face; the grooved portion of the operating lever being indicated by dotted lines 28 in Figure 1.

I have also provided means by which the trigger may be sprung and the operating lever released automatically in the act of moving the tool forwardly to position for applying the ring in the nose of an animal. A rod 29 is arranged at one side of the bar 10 and is adapted for a limited sliding movement in bearings 30, 31 carried by said bar. The rod 29 is bent at an angle between its ends, at the rear of the bearing 31, and its rear end is formed with a hook 32 adapted for detachable engagement with the lower end of the trigger 12, by means of a hole 33 formed in said trigger as shown in Figure 4. The forward end of the rod 29 is formed with a cross-head 34 occupying a position at one side of the jaws 16 and 21 and opposite the ring 17 when the latter is in place in the jaws. When it is desired to apply a ring to a relatively rigid member, such as an animal's nose, the ring is placed in the jaws, the operating lever set and the tool is moved forward manually to such position that the open ring embraces the member to be perforated, whereupon further forward movement will cause the cross-head 34 to engage and be moved rearwardly by pressure against the nose. This rearward movement of the rod oscillates the trigger by pressure on the lower end thereof and the operating lever is sprung and the ring applied to the member. This method of springing the tool is of considerable advantage at times as it

is not necessary for the operator to perform a conscious and separate act to move the trigger, but simply moves the tool forwardly to place the ring in the proper position, and then continue the forward movement to apply pressure on the cross-head.

The above described method is not used in applying a ring to a flexible or yielding member, such as an ear, as sufficient pressure could not be applied to move the trigger. In such cases the trigger is oscillated by the finger in the usual manner. At such times the rod 29 may be detached from the tool, and to facilitate such detachment the forward bearing 30 is formed as an upwardly opening spring clip from which the rod may be released by upward movement and then withdrawn from the trigger and rear bearing 31 by forward sliding movement. Rings applied in this manner are usually employed for attaching marking tags or other identification means.

I claim as my invention—

1. A ringing and marking tool, comprising a bar formed with a handle at one end and a rigid jaw member at the other end, a trigger pivoted on said bar adjacent said handle, a jaw lever pivoted on said bar adjacent and adapted to cooperate with the first jaw member, an operating lever pivoted between its ends on said bar, one end of said operating lever adapted for engagement and retention by said trigger, and a spring tending to oscillate said lever when released from said trigger, said operating lever adapted to engage said jaw lever forcibly under the influence of said spring to move said jaw lever toward the rigid jaw member.

2. A ringing and marking tool, comprising a bar formed with a handle at one end and a rigid jaw member at the other end, a trigger pivoted on said bar adjacent said handle, a movable jaw member pivoted on said bar adjacent and adapted to cooperate with the rigid jaw member, an operating lever pivoted between its ends on said bar, said trigger being formed with a seat adapted to be engaged by one end of said operating lever to hold it in set position, and a spring tending to move said lever through an arc upon release by said trigger, said operating member adapted to engage forcibly one end of said jaw member under the influence of said spring to move said jaw member toward the rigid jaw member and compress a ring mounted therebetween.

3. A ringing and marking tool, comprising a bar formed with a handle at one end and a rigid jaw member at the other end, a trigger pivoted on said bar adjacent said handle, a movable jaw member pivoted on said bar adjacent the rigid jaw member and adapted to cooperate therewith in holding an open ring, an operating lever pivoted between its ends on said bar, said trigger

being formed with a forwardly opening seat to be engaged by one end of said lever to hold it in set position, a spring tending to move said lever through an arc upon release from the seat of said trigger, said operating lever adapted to forcibly engage said movable jaw member under the influence of said spring to move said member toward the rigid jaw member and compress a ring mounted therebetween, and a releasing member mounted for reciprocation on said bar and having one end engaging said trigger, the forward end of said releasing member being positioned at one side of the jaws and adapted to be engaged and retracted by pressure against a member in which the ring is to be mounted.

4. A ringing and marking tool, comprising a bar formed with a handle at one end and a rigid jaw member at the other end, a trigger pivoted on said bar adjacent said handle, a movable jaw member pivoted on said bar adjacent the rigid jaw member and adapted to cooperate therewith in holding an open ring, an operating lever pivoted between its ends on said bar, said lever adapted to engage said trigger and be held thereby in set position, and a spring fixed at one end to said operating lever and at the other end to said movable jaw member in such manner as to apply considerable strain on said operating lever and materially less strain on said jaw member to hold the latter in frictional engagement with a ring mounted between the jaw members, said spring acting to move said lever forcibly into contact with said movable jaw member upon release from said trigger for the purpose of forcing said movable jaw member toward the rigid jaw member and compressing a ring.

5. A ringing and marking tool, comprising a body, a fixed jaw member formed on one end of said body, a movable jaw member pivoted on said body and adapted to cooperate with the fixed jaw member, a trigger on said body, spring-pressed operating member adapted for engagement with said trigger to hold it in set position and acting upon said movable jaw member when released by operation of said trigger, and a

releasing member slidably mounted on said body and having engagement with said trigger at one end, the opposite end of said releasing member being located at one side of said jaw members and adapted to engage an object when the body is moved forwardly for insertion of a ring therein.

6. A ringing and marking tool, comprising a body, a fixed jaw member formed on one end of said body, a movable jaw member pivoted on said body and adapted to cooperate with the fixed jaw member, a trigger pivoted on said body, a spring-pressed operating member adapted for engagement with said trigger to hold it in set position and acting upon said movable jaw member when released by oscillation of said trigger, and a releasing member slidably mounted on said body and having pivotal engagement with said trigger, said releasing member being formed with an enlarged portion at one side of said jaws adapted to be pressed against an object as the tool is moved forward for operation upon said object, whereby the trigger is oscillated automatically by such forward movement.

7. A ringing and marking tool, comprising a body, a fixed jaw member formed on one end of said body, a movable jaw member pivoted on said body and adapted to cooperate with the fixed jaw member, a trigger pivoted on said body, a spring-pressed operating member adapted for engagement with said trigger to hold it in set position and adapted to act upon said movable jaw member when released by oscillation of said trigger, and a releasing member detachably and slidably mounted on said body and having engagement with said trigger, said releasing member terminating adjacent said jaw members and adapted to be pressed against an object as the tool is moved forwardly for operation upon said object by said jaws, whereby the trigger may be oscillated automatically by such forward movement, said trigger also being adapted for manual oscillation at times.

Signed at Des Moines, in the county of Polk and State of Iowa, this 22d day of March, 1923.

FRANK PETERSON.