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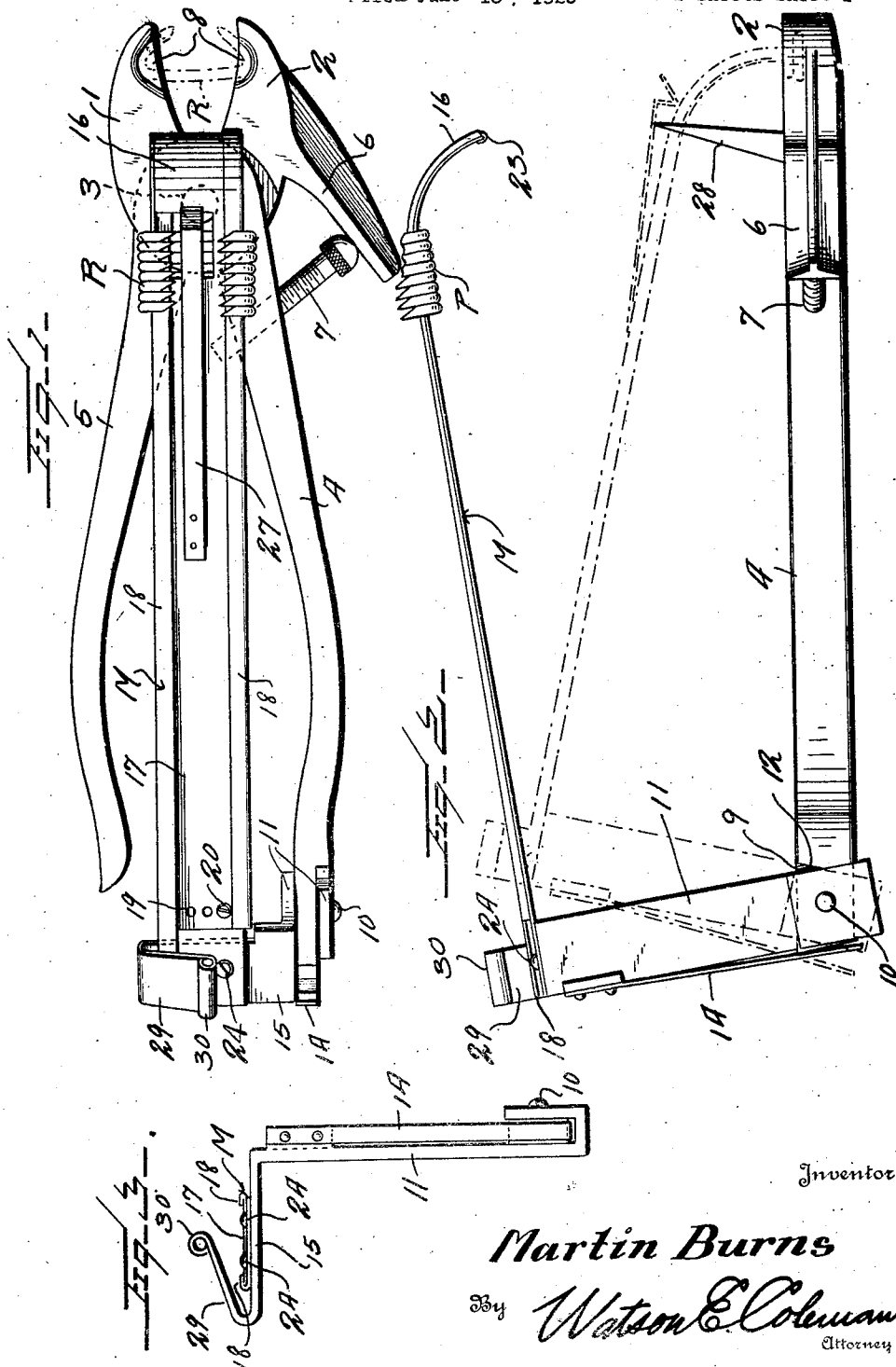
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M. BURNS

HOG RINGER

Filed June 13, 1925

2 Sheets-Sheet 1



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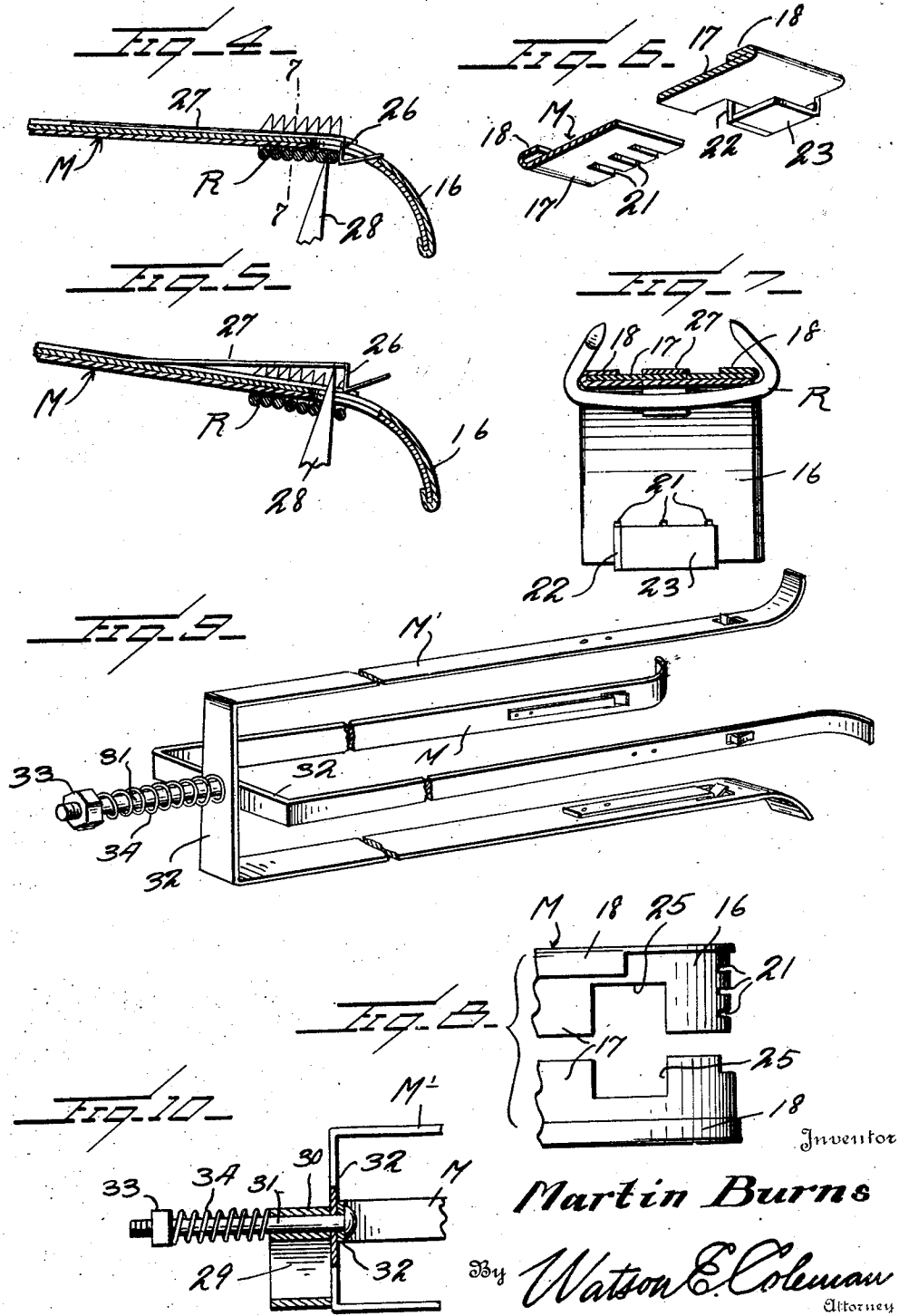
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UNITED STATES PATENT OFFICE.

MARTIN BURNS, OF KEWANNA, INDIANA.

HOG RINGER.

Application filed June 13, 1925. Serial No. 36,925.

This invention relates to certain improvements in hog ringers and it is an object of the invention to provide a device of this general character having means whereby the

of the feed member illustrating the means for holding said sections in relative adjusted relation;

Figure 7 is a sectional view taken substantially on the line 7—7 of Figure 4;

Figure 8 is a view in top plan of the free end portion of the feed member;

Figure 9 is a view in perspective illustrating a feed member constructed in accordance with a further embodiment of my invention;

Figure 10 is a fragmentary view partly in section and partly in side elevation of the structure as illustrated in Figure 9.

As disclosed in the accompanying drawings, 1 and 2 denote a pair of relatively swinging jaws maintained in requisite assembled relation by the pivot member 3, said jaws 1 and 2 being provided respectively with the elongated handle members 4 and 5. The jaw 2 is provided with a rearwardly directed arm 6 which is adapted to have contact with the head of the screw 7 threaded through the adjacent handle member 4, the opposite or inner end of the screw being adapted to have contact with the second operating handle 5. It will therefore be readily understood that the screw 7 serves to limit the swinging movement of the jaws 1 and 2 in either direction, the extent of such movement being regulated as preferred by requisite adjustment of the screw 7. By limiting the relative outward movement of the jaws 1 and 2 the required application or insertion of a ring therebetween is facilitated while limiting the relative inward movement of said jaws 1 and 2 prevents buckling of the ring when being applied to the nose of the animal. The outer extremities of the jaws 1 and 2 in the opposed faces thereof are provided with the recesses 8 in which a ring R is initially seated, said recesses also opening through side faces of the jaws.

The free end portion of the handle member 4 is provided in its outer face with a recess 9 and to the inner wall of said recess is pivotally connected, as at 10, an end portion of a bracket 11, said bracket being capable of limited swinging movement in a direction toward the jaws 1 and 2. The swinging movement of the bracket 11 in either direction is limited by contact of the pivoted portion of said bracket with the

Another object of the invention is to provide a device of this character embodying a pair of relatively movable jaws together with a feed member, said member and one of the jaws being provided with coacting means to assure requisite single delivery of a ring between the jaws upon proper arrangement of the feed member.

It is also an object of the invention to provide a device of this general character comprising a pair of relatively swinging jaws together with means associated therewith for limiting such relative swinging movement in either direction.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved hog ringer whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view partly in top plan illustrating a hog ringer constructed in accordance with an embodiment of my invention;

Figure 2 is a view in side elevation of the structure as illustrated in Figure 1 with a second position of certain of the parts indicated by broken lines;

Figure 3 is a view in end elevation of the outer end of the feed member and the bracket to which it is connected;

Figure 4 is a fragmentary longitudinal sectional view taken through the free or stationary end portion of the feed member with certain of the coacting parts in elevation;

Figure 5 is a view similar to Figure 4 with the feed member in a second position;

Figure 6 is a fragmentary view in elevation of the free end portions of the sections

chamfered shoulder 12 constituting the inner wall of the recess 9. The outer end of this operating handle 4 is beveled and when the bracket 11 is at the limit of its outward swinging movement, the free end portion of the spring 14 has contact with said beveled end, the opposite end portion of said spring being secured to the bracket 11 whereby the bracket is maintained in such position. The spring, however, permits the bracket to swing inwardly upon requisite pressure being imposed thereupon and this spring 14 cooperates with the outer end of the handle member 4 to assure a return of the bracket 11 to its outer position upon release of such pressure thereon.

The outer end of the bracket 11 is provided with the substantially perpendicularly related extension or arm 15 disposed in a general direction toward the second operating handle 5 and fixed to said extension or arm 15 is an end portion of an elongated feed member M. The forward or free end portion 16 of the member M is disposed on a predetermined curvature in a direction toward the jaws 1 and 2 which, when the bracket 11 is swung forwardly, closely approaches the recesses 8 so that a ring will be readily delivered from the member to said recesses.

The member M, as herein disclosed, comprises two elongated members 17 having their outer longitudinal marginal portions provided with the returned flanges 18 and the inner marginal portions of these members are adapted to overlap whereby the width of the member M may be varied in accordance with the size of the ring to be employed. The outer or rear end portions of the members 17 are each provided with a transversely disposed series of openings 19 through which a locking member 20 of any desired type is adapted to be inserted whereby the rear or outer end portions of the members 17 may be effectively held in their desired relative adjustment. The opposite or inner end portion of one of the members 17 is provided with a transversely disposed series of open slots 21 in which is adapted to be selectively engaged a depending flange 22 carried by the adjacent end portion of the second member 17 and thereby maintain said end portions of both of the members 17 in required relative adjustment. This second member 17 at its inner end is also provided with a rearwardly directed flange 23 which underlies the adjacent or slotted end portion of the first member 17 to further assure said end portions being maintained in desired assembly.

The outer end portion of one of the members 17 extends beyond the outer end portion of the second member and said extended portion is attached by the screws 24 or the like to the extension or arm 15 of the bracket

11 providing the connection therewith hereinbefore referred to. The members 17 immediately adjacent to the curved portion 16 thereof are provided in their inner marginal portions with the recesses 25 which provide an opening through which extends the nose 26 of the spring latch 27, said latch being suitably secured to the outer surface of one of the members 17. The nose 26 of the latch, as illustrated in Figure 4, normally holds the rings R upon the member M but when the bracket 11 is swung in a direction toward the jaws 1 and 2, the stud 28 carried by the jaw 1 passes from below through such opening, as illustrated in Figure 5, and engages between the two outermost rings R, holding the rear rings against movement toward the free or delivery end of the member M. The stud also comes into contact with the latch 27 and forces the nose 26 outwardly of the opening in the member to permit the outer ring to slide from the member within the recesses 8. This stud 28 is preferably disposed on an angle of approximately 100°.

The arm or extension 15 is also continued by a reverted or returned arm 29 terminating in a sleeve or barrel 30 extending thereacross, said arm 29 however being of a width slightly less than that of the extension or arm 15. This barrel or sleeve 30 is adapted to have inserted therethrough an elongated bolt 31 also directed through the overlying portions of the cross members 32. This bolt 31 extends beyond the sleeve or barrel 30 and has arranged thereon a nut 33 or the like and interposed between such nut 33 and the adjacent end of the sleeve or barrel 30 is an expansible member 34, herein disclosed as a coiled spring encircling said bolt. This spring serves to constantly maintain the cross members 32 in contact with the arm 29 with one of the cross members 32 in contact with the resultant shoulder afforded by the reduced width of the arm 29 so that the cross members 32 are normally maintained against rotation. Each of the cross members 32 connect a pair of feed members M' of different widths whereby rings of different sizes may be carried by the unitary structure afforded by the members M' and cross members 32. The overlying portions of the cross members 32 may be rigidly attached one to the other by welding or in any desired manner. By freeing a cross member 32 from the returned arm 29, a desired feed member M' may be brought into proper position with respect to the jaws 1 and 2.

From the foregoing description it is thought to be obvious that a hog ringer constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is

susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

1. A hog ringer comprising, in combination, a pair of relatively movable jaws having ring receiving recesses, operating handles for the jaws, a ring feed member, means for connecting said member to one of the handles for movement toward and from the jaws, one end portion of the member closely approaching the ring receiving recesses when the member is moved toward the jaws, a ring holding means carried by the member, and means carried by one of the jaws and engaging between the two outermost rings when the member is moved toward the jaws to release said holding means to permit discharge of the outer ring.

2. A hog ringer comprising, in combination, a pair of relatively movable jaws having ring receiving recesses, operating handles for the jaws, a ring feed member, means for connecting said member to one of the handles for movement toward and from the jaws, one end portion of the member closely approaching the ring receiving recesses when the member is moved toward the jaws, a ring holding means carried by the member, and means carried by one of the jaws and engaging between the two outermost rings when the member is moved toward the jaws to release said holding means to permit discharge of the outer ring and to hold the remaining rings against discharge.

3. A hog ringer comprising, in combination, a pair of pivotally connected jaws having ring receiving recesses, operating handles for the jaws, a bracket pivotally connected with one of said operating handles, a ring feed member having one end portion secured to the bracket, the opposite end portion of the member closely approaching a ring receiving recess when the bracket is swung in one direction, a ring holding means carried by the member, means carried by one of the jaws and engaging between the two outermost rings when the member is swung toward the jaws to release the holding means to permit discharge of the outer ring.

4. A hog ringer comprising, in combination, a pair of relatively movable jaws having ring receiving recesses, operating handles for the jaws, a bracket pivotally connected with one of the operating handles, a feed member secured to said bracket and of a length to have its discharge end closely approach the recesses when the bracket is

swung in one direction, said member adjacent to its discharge end being provided with an opening, a latch carried by said member and having a nose extending through the opening of the member in advance of the rings to hold the rings on the member, and a stud carried by one of the jaws and passing through the opening of the member at a point between the two outermost rings when the bracket is swung to bring the discharge end of the member closely adjacent to the ring receiving recesses, said stud as it passes through the opening contacting with the latch to move the nose of the latch into inoperative position to permit discharge of the outer ring, said stud holding the remainder of the rings upon the member.

5. A hog ringer comprising, in combination, a pair of relatively movable jaws having ring receiving recesses, operating handles for the jaws, a bracket pivotally connected with one of the operating handles, a feed member secured to said bracket and of a length to have its discharge end closely approach the recesses when the bracket is swung in one direction, said member adjacent to its discharge end being provided with an opening, a latch carried by the member and having a nose extending through the opening of the member in advance of the rings to hold the rings on the member, a stud carried by one of the jaws and passing through the opening of the feed member at a point between the two outermost rings when the bracket is swung to bring the discharge end of the member closely adjacent to the ring receiving recesses, said stud as it passes through the opening contacting with the latch to move the nose of the latch into inoperative position to permit discharge of the outer ring, said stud holding the remainder of the rings upon the member, and means for holding the bracket at the limit of its swinging movement in one direction.

6. A hog ringer comprising, in combination, a pair of relatively movable jaws having ring receiving recesses, operating handles for the jaws, a bracket pivotally connected with one of the operating handles, a feed member secured to said bracket and of a length to have its discharge end closely approach the recesses when the bracket is swung in one direction, said feed member adjacent to its discharge end being provided with an opening, a latch carried by the member and having a nose extending through the opening in advance of the rings to hold the rings on the member, a stud carried by one of the jaws and passing through the opening of the feed member at a point between the two outermost rings when the bracket is swung to bring the discharge end of the member closely adjacent to the

ring receiving recesses, said stud as it passes through the opening contacting with the latch to move the nose of the latch into operative position to permit discharge of the outer ring, said stud holding the remainder of the rings upon the member, and a spring carried by the bracket and engaging the operating handles to which said bracket is attached for holding the bracket at the limit of its swinging movement in one direction. 10

In testimony whereof I hereunto affix my signature.

MARTIN BURNS.