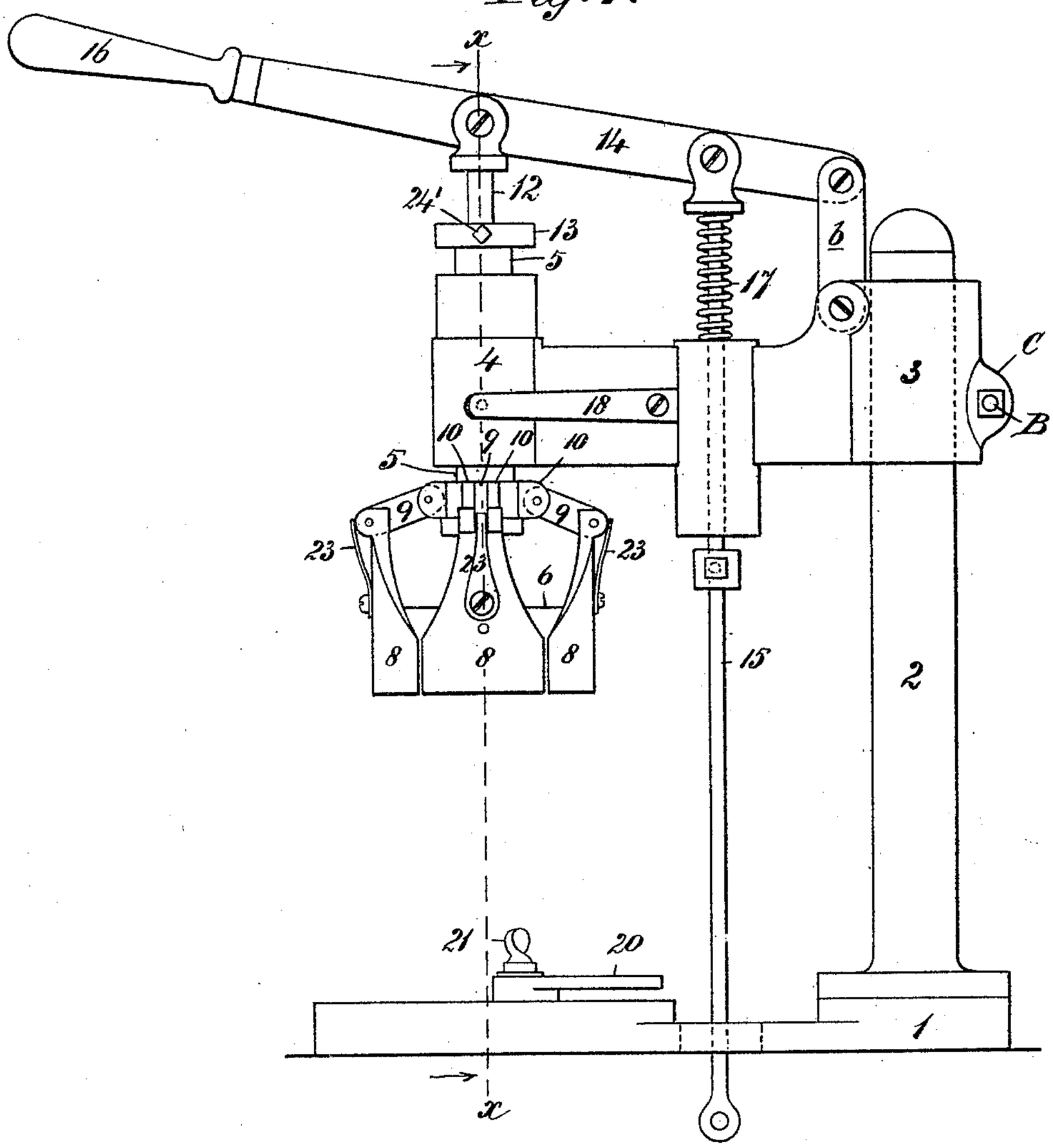
(No Model.) 3 Sheets—Sheet 1.

J. M. RUDDOCK.

CAN HEADING MACHINE.

No. 459,147. Patented Sept. 8, 1891.

Fig. 1.



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Inventor:
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(No Model.) 3 Sheets—Sheet 2.

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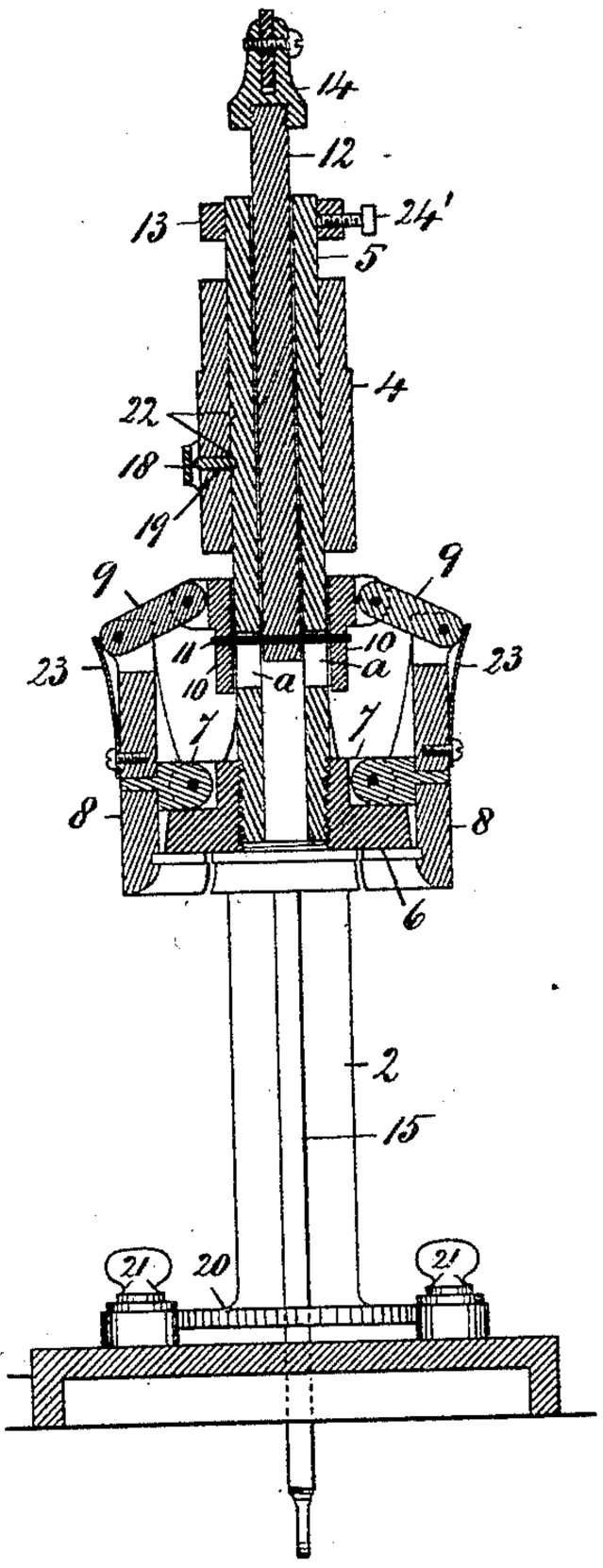

Fig. 2.

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(No Model.) 3 Sheets—Sheet 3.

J. M. RUDDOCK.

CAN HEADING MACHINE.

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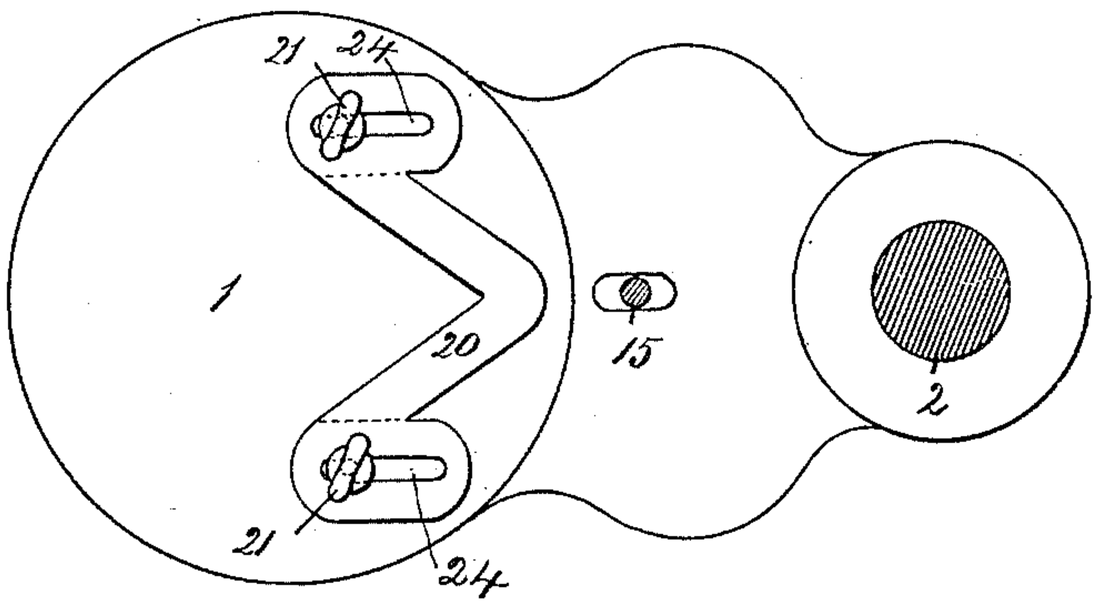

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOSEPH MORGAN RUDDOCK, OF CHATHAM, NEW BRUNSWICK, CANADA.

CAN-HEADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 459,147, dated September 8, 1891.

Application filed January 19, 1891. Serial No. 378,199. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MORGAN RUDDOCK, of Chatham, in the Province of New Brunswick, in the Dominion of Canada, have invented certain new and useful Improvements in Can-Heading Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of my machine. Fig. 2 is a section of the same on line X X; and Fig. 3 is a plan of the base of the machine, showing the can-centering guide.

My invention has for its object to head cans by first facing the head in a circular holder having annularly-arranged jaws, then placing the can under the holder and pressing down a lever, whereby the head will be forced on the can.

My invention consists in the construction and combination of parts of the machine and other peculiarities hereinafter described and claimed.

The main frame of the machine is composed of a base 1, a post 2, fixed to the base, and an H-shaped arm 3, one end sleeved on said post. The sleeve of said arm is split vertically and provided with jaws C and clamped adjustably to said post by a screw-bolt B, passing through the jaws to adjust the machine to suit cans of different heights. The opposite end 4 of the arm is tubular vertically, and in said tube is inserted the hollow stem 5 of the can-head holder, which consists of a circular disk 6, having on the upper side radial brackets 7 for pivoting thereto tilting jaws 8, surrounding the disk peripherally, and the upper end of said jaws is connected by a link 9 to an annular collar 10, surrounding the stem 5 of the can-head holder, and said collar has radial projections corresponding to the radial brackets 7 of the disk 6 for the purpose of pivoting thereto the links 9, which connect with the jaws. The disk 6 is rigidly screwed to the lower end of stem 5, and the collar 10 slides thereon to tilt the jaws in manner now to be described.

12 is a plug-rod inserted in the hollow stem 5 from the top, and said stem is provided with a slot *a*.

11 is a pin inserted through the collar 10 and passes through slot *a* into rod 12 and out through the opposite side of the collar, and by said pin and slot the can-head holder is prevented from falling to the ground. The can-head holder is maintained at the raised position shown in Fig. 2, whereby said pin will then be at the top of the slot by a coiled spring 17 lifting a lever 14, which is connected by a pin to the top of said rod. At the raised position of the can-head holder collar 10 will have been drawn up by the lifting of rod 12 by the lever, thereby indrawing the upper end of the jaws and throwing out the lower ends to receive the can-head. The can-head is then inserted by hand and power of the lever applied to the top of rod 12. Said rod then moves down until pin 11 reaches the bottom of the slot or its alternative. The lever bears on the top of stem 5. The moving down of said rod 12 carries with it the collar 10, thereby causing links 9 to close the jaws tightly against the peripheral edge of the inserted can-head. By continued depression of the lever stem 5 then begins to move down until disk 6 inserts the head in the can placed directly under the jaws.

13 is a set-ring surrounding stem 5, and is held adjustably by a set-screw 24′ to limit the downward movement of the stem by contact of the ring with the top of the tubular end 4 of the main frame, whereby the can-head will not be depressed too far into the can. When the spring 17 reacts to lift the can-head holder clear of the headed can, the upper end of the jaws is drawn inwardly, as before described, to open the jaws at the lower end to release the can-head and permit the insertion of another can-head into the jaws.

The lever 14 is fulcrumed at one end to the arm 3 of the main frame by a connecting-link *b* to obtain a slight accommodating motion when depressed by a foot-rod 15, connected to the lever or by a handle 16, attached to the end of the lever for its operation.

18 is a thumb-spring, one end secured to the main frame and the free end provided with a stud 19, which passes into a hole in the tubular portion 4 of the main frame and enters one of two notches 22 in the stem 5, one notch being above the other. When the stud is in engagement with the lower notch, it holds the stem 5 while the rod 12 is moving down,

and when the stem 5 begins to move down the stud 19 passes from the lower into the upper notch and holds the stem 5 to prevent the can-head holder rising immediately after each can has been headed. After the can has been headed the thumb-spring is retracted outwardly by hand against its resistance to disengage the stud from the upper notch, and when thus released the spring 17 lifts the lever and raises the can-head holder to allow the can-head to be placed in the jaws, as aforesaid, and to allow of removal of the can last headed and replacement by another can to be headed.

20 is a V-shaped guide-piece bearing on the base of the machine, and said guide-piece has parallel slots 24 at the ends, through which pass thumb-screws 21 to clamp the guide-piece adjustably to the base directly under the jaws, said guide-piece guiding the can, whereby its position will be such as to receive the head of the can with exactness.

23 are springs to keep the jointed connection of the jaws and links tight and to take up wear; but said springs may be dispensed with.

I claim as my invention—

1. The combination, with the main frame consisting of the base 1, post 2, arm 3, and a V-shaped can-centering guide supported by and adjustable on said base, of the upwardly-springing lever 14, the plug-rod 12, pendent therefrom, the hollow stem 5, surrounding said rod and having a disk 6 at its lower end, the jaws 8, pivoted peripherally to said disk, the collar 10, surrounding the stem and connected to said rod 12 by a pin 11, passing through a slot in said stem, and links 9, connecting said collar and jaws, as set forth.

2. The combination, with the main frame having a can-centering guide 20, supported on the base of said frame, and a lever 14, pivoted to the main frame, of the hollow stem 5 and disk 6 and provided with a set-ring 13 to limit the depression, the spring 18 to hold said stem stationary when depressed, the plug-rod 12, pendent from the lever and entering the hollow stem, the collar 10, surrounding said stem and connected to the plug-rod by a pin 11, passing through a slot in said stem, and the tilting jaws 8, hinged to said disk 6 and connected to said collar by links 9, as set forth.

JOSEPH MORGAN RUDDOCK.

Witnesses:
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