

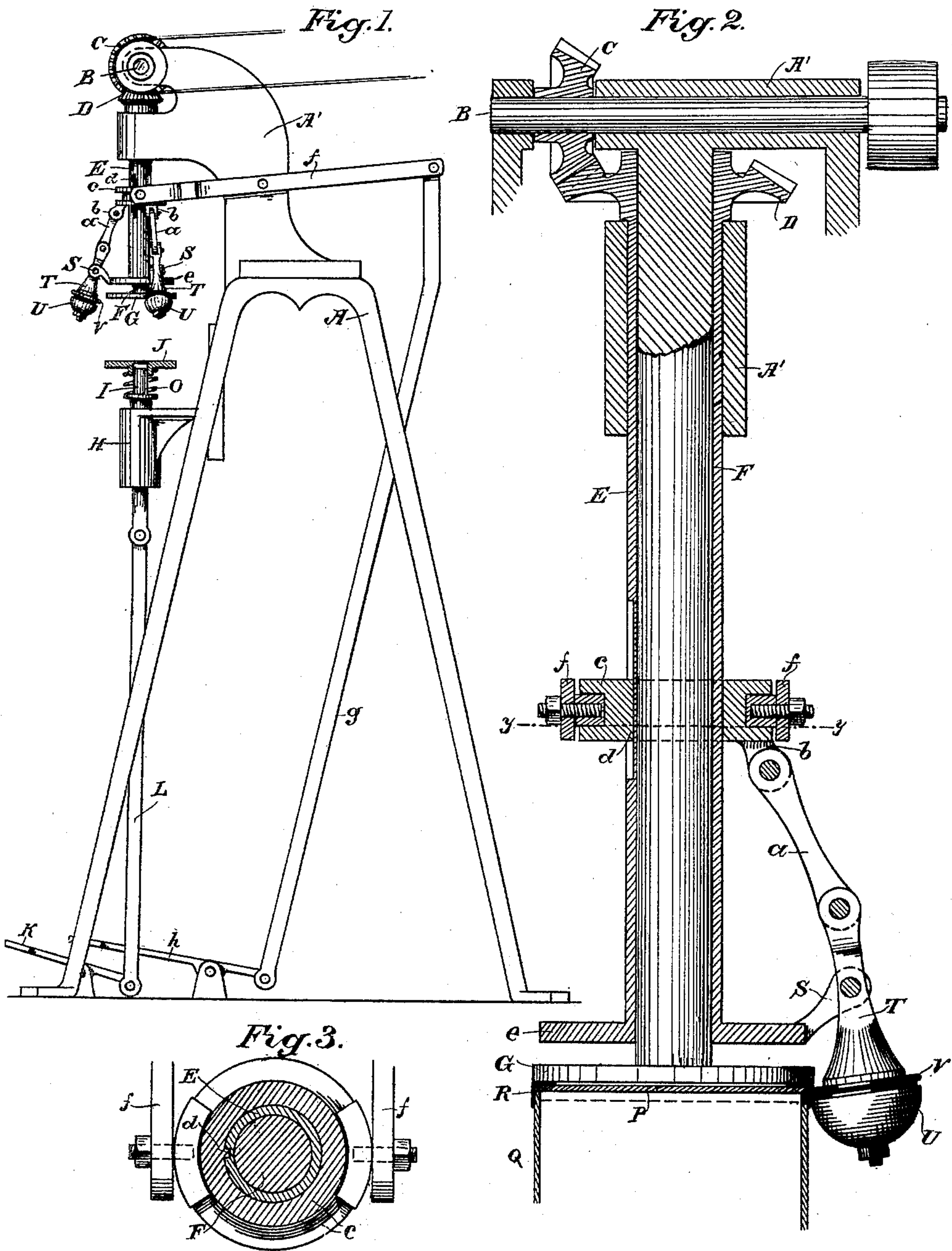
No. 659,804.

Patented Oct. 16, 1900.

E. C. ATWOOD.
CAN HEADING MACHINE.

(Application filed Oct. 17, 1899.)

(No Model.)



Witnesses,
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UNITED STATES PATENT OFFICE.

ERNEST C. ATWOOD, OF GOLDENGATE, CALIFORNIA, ASSIGNOR TO THE
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CAN-HEADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 659,804, dated October 16, 1900.

Application filed October 17, 1899. Serial No. 733,856. (No model.)

To all whom it may concern:

Be it known that I, ERNEST C. ATWOOD, a citizen of the United States, residing at Goldengate, county of Alameda, State of California, have invented an Improvement in Can-Heading Machines; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for heading cans of that class in which the body is made of pasteboard or like material with metallic or other bottom and metallic or other head, the object being to apply and crimp the metallic ring by which the head is secured upon the top of the can after the latter has been filled.

My invention comprises details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is an elevation of the device. Fig. 2 is a vertical section through the crimping device. Fig. 3 is a horizontal section on line *y y* of Fig 2.

A is a frame or support of any suitable or desired character, having an extension or bracket A' at the top, within which is journaled a shaft B, through which power is applied. Upon this shaft is fixed a bevel-gear C, and this engages a corresponding pinion D upon a vertical sleeve E. This sleeve is turnable around a central shaft F, extending from the upper part of the bracket A' downwardly and having fixed upon its lower end a head G. A vertical hollow guide H is supported from the frame A, and through this guide extends a vertical shaft or spindle I, having upon its upper end a table J, axially coincident with the disk G, and the can to be headed is supported upon this disk or table J, and after the cover or head has been placed upon it it is moved up into contact with the disk G, where it is retained by means of a treadle K and connecting-rod L, intermediate between the treadle and the shaft or spindle I. In this position the can remains stationary. A spiral spring O surrounds the shaft I between the table J and the top of the guide H, as shown, exerting a slight upward pressure upon the table.

The cap or cover P rests upon the upper

edge of the body Q of the can, and a flanged ring R fits around the body, extending below the cap P, while the upper or horizontal part of this ring extends over the cap, as shown in the section.

In order to secure the parts, the side of the ring R is crimped or bent inwardly and indented into the upper part of the can by the following apparatus: The lower end of the sleeve E has a disk or flange *e*, and upon the periphery of this flange are fixed the fulcrums S, in which the arms T are pivoted. Any suitable number of these arms may be thus fulcrumed or pivoted to the periphery of the disk. I have found that three, equally interspaced, is a very suitable number for the work. Upon the lower ends of these arms are carried the semiglobular heads U, having a circumferential bead V formed about the upper portion, which forms the larger diameter of the hemispherical segment, and through the center of which surface the arm T passes axially, being secured by a nut or other device at the lower end. These arms are connected by links *a* with lugs *b*, to which they are pivoted, the links being also pivoted to the upper ends of the arms T. The lugs *b* are fixed to the lower part of a sleeve *c*, which is vertically slidable by reason of a spline *d* thereon engaging a groove in the side of the sleeve E.

The sleeve or collar *c* is slidable upon the sleeve E by means of a lever *f*, fulcrumed upon the bracket A', and a connecting-rod *g* extends from the outer end of the lever *f* down to a treadle *h*, which is within reach of the operator.

The operation would then be as follows: The can having been placed upon the table J, with its cover and surrounding ring in place, is raised up into contact with the disk G and is thus centered and held stationary between these two disks. The foot of the operator being placed upon the treadle *h* will act through the lever *f* to press the collar *c* down, and this, acting through the link *a*, will press the upper end of the arm T outwardly. This forces the beaded edge V of the head U into contact with the side of the ring R, and as the arms T are revolved in unison with the revolution of the disk *e*

on the sleeve E, to which motion is transmitted through the bevel-gears C and D, previously described, it will be seen that the beading V of the spherical heads will be
5 pressed against the ring R and rapidly revolved around the can until the ring has been crimped and indented sufficiently to secure it firmly upon the head of the can. In this manner I am enabled to rapidly head this
10 class of cans after they have been filled and provide a tight closure therefor.

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

15 1. A device for applying heads upon the ends of cans in which the heads rest upon the can ends, and are inclosed by annular rings extending over the head and down the side of the can, said device comprising a frame
20 having upper and lower guides, vertical shafts mounted in said guides one of said shafts having a spring-seated table to support the can and the other shaft having an encircling sleeve provided with a disk to rest upon the
25 can-head, a collar splined on the sleeve, and a treadle and connections for raising the lower shaft, fulcrum-arms projecting from the disk and the collar, arms fulcrumed between their ends to the arms on the disk and having their
30 lower ends provided with semiglobular beaded

heads, links having one end connected with the arms on the collar and their opposite ends pivotally connected with the upper ends of the arms which carry the beaded heads, a lever connected with the collar and a treadle
35 and connection for operating the same whereby the beaded heads are moved into and out of contact with the securing-rings of the can, and means for rotating the upper shaft.

2. In a machine of the character described, 40 the combination of means for supporting the can, a vertical shaft and means for rotating the same, a sleeve surrounding the shaft and a collar splined on said sleeve, arms fulcrumed to the sleeve at points between their ends 45 and having their lower portions threaded, semiglobular heads fitted to the lower ends of the arms and having beaded peripheries, nuts engaging the threaded ends of the arms and securing the heads in place and links 50 fulcrumed to the collar and having their lower ends pivotally connected to the upper ends of the arms.

In witness whereof I have hereunto set my hand.

ERNEST C. ATWOOD.

Witnesses:

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