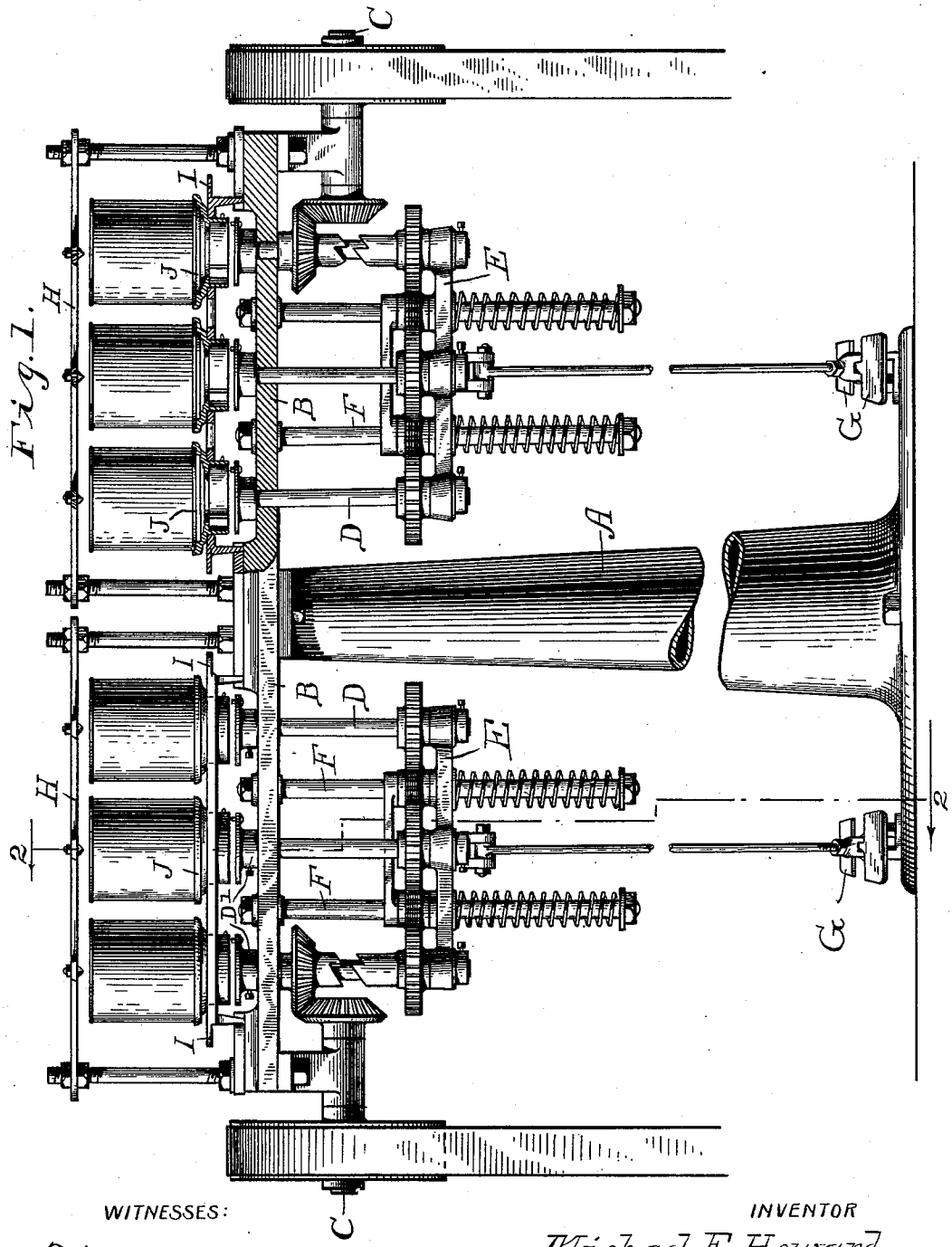
(No Model.) 2 Sheets—Sheet 1

M. E. HOWARD.

CAN CAPPING MACHINE.

No. 588,337. Patented Aug. 17, 1897.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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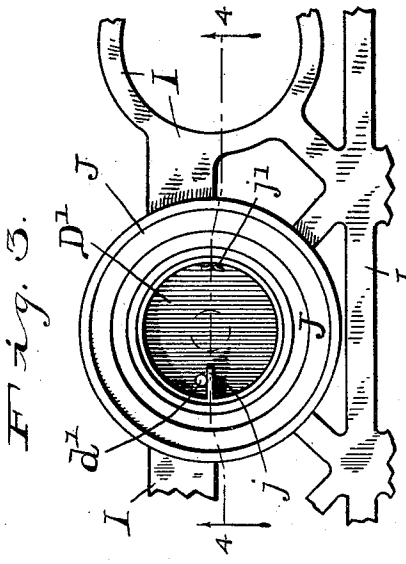


Fig. 3.

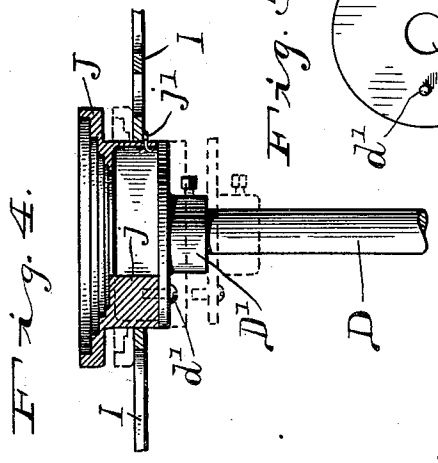


Fig. 4.

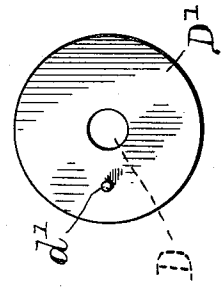


Fig. 5.

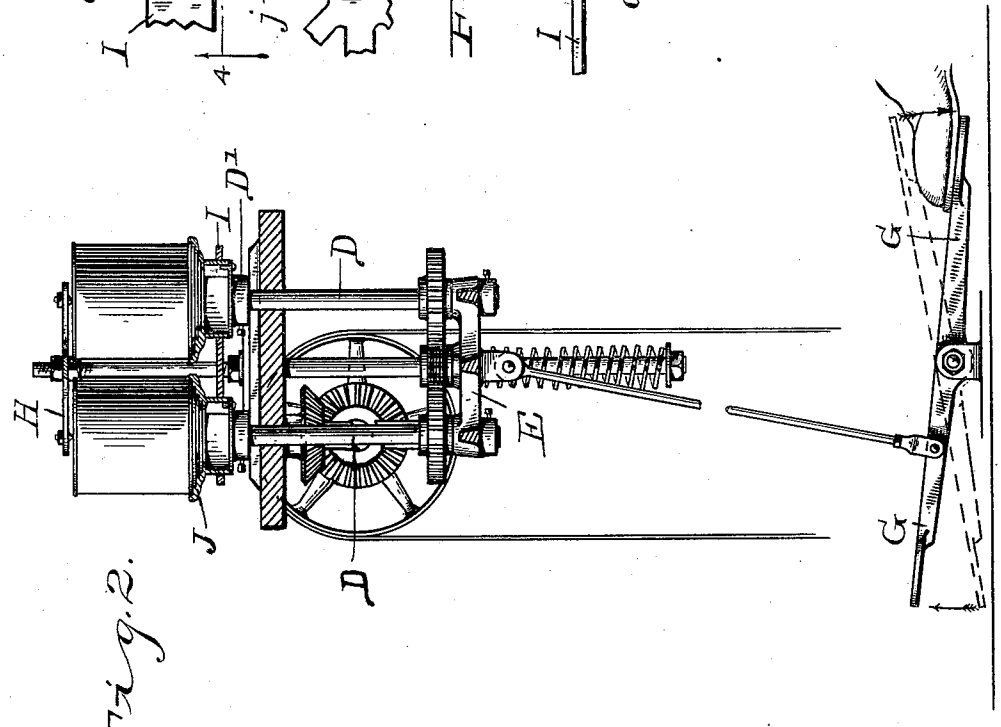


Fig. 2.

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UNITED STATES PATENT OFFICE.

MICHAEL E. HOWARD, OF INDIANAPOLIS, INDIANA.

CAN-CAPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 588,337, dated August 17, 1897.

Application filed July 2, 1897. Serial No. 643,301. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL E. HOWARD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Can-Capping Machines, of which the following is a specification.

My said invention consists in certain improvements upon that for which Letters Patent of the United States No. 531,634 were granted me January 1, 1895. Said improvements will be first fully described, and then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof and in which similar letters of reference indicate similar parts, Figure 1 is a view, partly in side elevation and partly in longitudinal vertical section, of a machine embodying my said invention, a portion of the height being broken away in order that the remainder may be shown on a larger scale; Fig. 2, a transverse sectional view as seen when looking in the direction indicated by the arrows from the dotted line 2 2 in Fig. 1; Fig. 3, a fragmentary top or plan view, on an enlarged scale, of one of the can-holding cups and the immediately-adjacent portion of the tray carrying the cups; Fig. 4, a sectional view through the same as seen from the dotted line 4 4 in Fig. 3, and Fig. 5 a top or plan view of the upper end of one of the can-rotating spindles and driving device thereon.

The standard A, table B, driving-shaft C, driving mechanism for the spindles D, the frame E for such spindles, the rods F on which said frame is mounted, the treadle G, and bars H are respectively or may be similar to those shown and described in my Letters Patent No. 531,634, above mentioned, or of any other suitable form. The trays I, however, are in my present machine mere frames, and, as best shown in Fig. 3, are formed with simple circular orifices to receive and support the can-carrying cups, the remainder of their bodies being lattice-like for lightness.

The can-carrying cups J, as best shown in Figs. 3 and 4, are preferably circular in form and have a series of rests of different diameters, within which the lower ends of cans of different sizes may fit, so that a can of any size or shape may be properly held and substantially accurately centered by such cups. Extending down from the under side of the cup proper, within which the cans to be operated upon rest, is a flange, which passes through the orifice provided therefor in the frame or tray I, and passing through this flange, below the tray I, is a cotter-pin or suitable fastening *j'*, by which the cup J is prevented from being thrown out of place. Said can-receiving cups J, preferably, are entirely open in the center, and they are each provided at the bottom with a lug *j*, with which a similar lug or projection on the corresponding spindle-head may engage. These lugs preferably extend in horizontally from the rims or flanges forming the lower portions of the cups toward the centers of the central openings therein, as best shown in Fig. 3.

The spindles D are each provided with a head or cap D', having an upwardly-extending pin or projection *d'*, which is adapted when the spindle is raised to be thrown into the path of the lug *j*, and thus the can-carrying cup J is positively driven by the spindle D whenever the latter is raised, while when the spindle is lowered to its normal position the parts are entirely free of engagement. The cans are never disturbed from the positions they occupy when first put in place until removed from the machine, whereas in my former machine they were raised off the tray upon which they were placed by the head on the spindle, which came in direct contact therewith. The pressure in my new machine is always against the outer edge of the cans directly under their sides, while in the former arrangement, with large-sized cans especially, the pressure was in the center, thus having some tendency to push the ends of the cans in. The present arrangement is obviously the better one, as will be readily apparent to those skilled in the art.

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

1. The combination, in a can-capping machine, of a suitable tray or frame, can-receiving cups mounted in said tray or frame and having lugs at the lower side, driving-spindles positioned below said cups and provided

with heads having upwardly-extending projections adapted to engage with the lugs on the cups, whereby, when the spindles are raised, said cups are positively engaged and driven, substantially as set forth.

2. The combination, in a can-capping machine, with the standard, the table, the driving-shaft, the can-rotating spindles and the can-holding bars; of trays I having orifices therein, can-receiving cups mounted in said orifices, and heads on said spindles adapted when said spindles are raised to come in contact with, raise and revolve said cups, substantially as shown and described.

3. The combination, in a can-capping machine, of the framework, the driving mechanism, the tray I having orifices, can-carrying cups mounted in said orifices and extending through to below the same, pins j' whereby said cups are prevented from being entirely removed from said orifices, and spindles D having heads D′ which are adapted to come in contact with and raise and revolve said cups without removing them from the orifices in the tray, substantially as shown and described.

4. The combination, in a can-capping machine, of a tray or frame I having orifices to receive the vertical portions of the can-carrying cups, said cups having several annular seats of different diameters to receive different-sized cans, with a free opening through the center to the bottom, a lug within said opening, a driving-spindle, a head on said spindle adapted to come in contact with the under side of the cup and provided with a projection adapted to engage with the lug in the opening therein, all substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 25th day of June, A. D. 1897.

MICHAEL E. HOWARD. [L. S.]

Witnesses:

CHESTER BRADFORD,

JAMES A. WALSH.