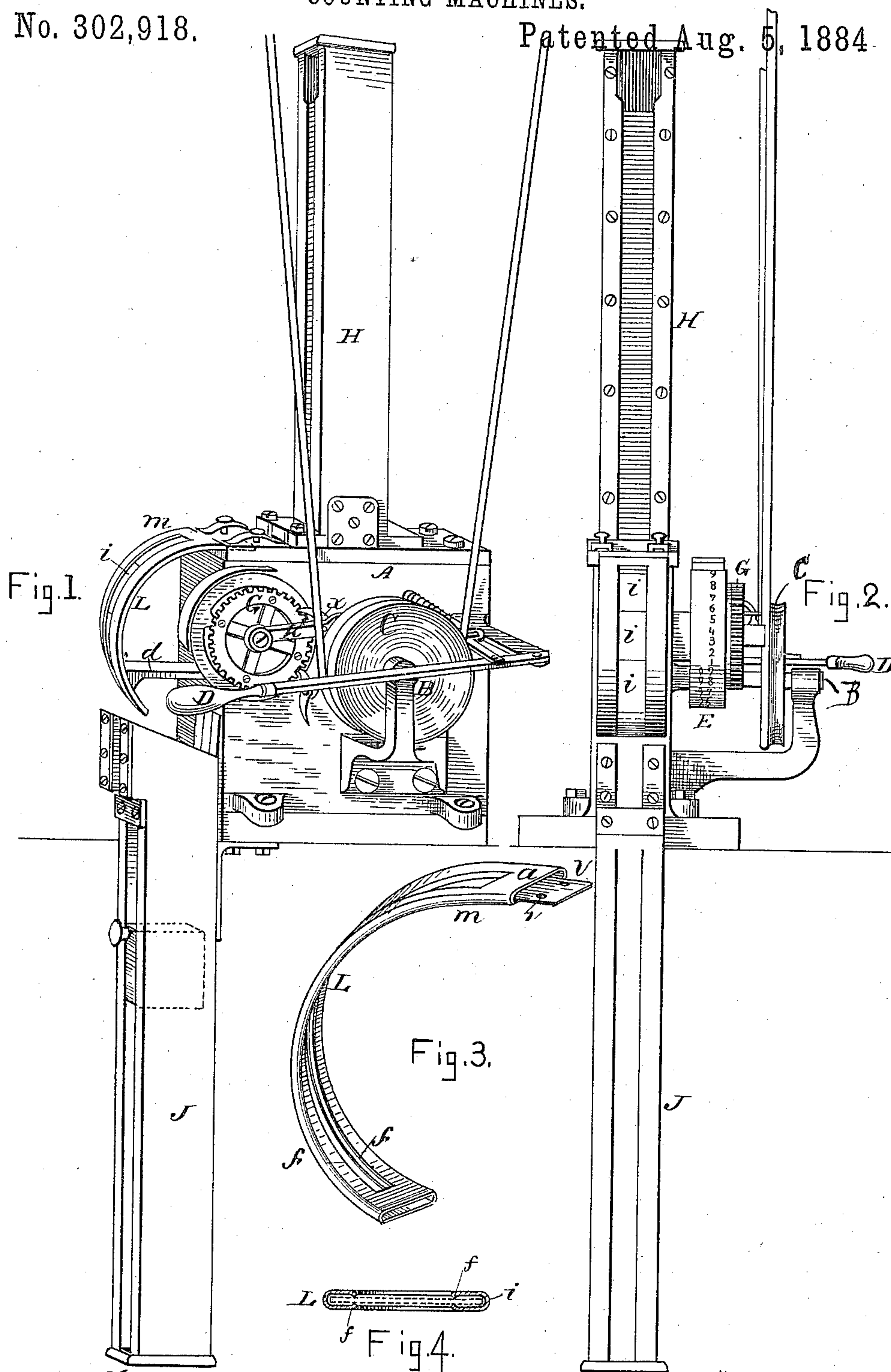


(No Model.)

S. D. LAYMAN.
ATTACHMENT FOR TICKET PRINTING, NUMBERING, OR
COUNTING MACHINES.

No. 302,918.

Patented Aug. 5, 1884.



Witnesses:
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UNITED STATES PATENT OFFICE.

STEPHEN D. LAYMAN, OF BOSTON, MASSACHUSETTS.

ATTACHMENT FOR TICKET PRINTING, NUMBERING, OR COUNTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 302,918, dated August 5, 1884.

Application filed August 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN D. LAYMAN, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Attachments for Ticket Printing, Numbering, or Counting Machines, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to attachments for ticket printing, numbering, or counting machines, whereby the tickets are reversed or turned face downward in the discharging-chute, so that when the stack of tickets is taken out of said chute and reversed bodily the tickets will appear in regular numerical order from the top of the stack downward.

The invention consists in the peculiar construction of the attachment, as hereinafter described and claimed.

Figure 1 is an isometrical perspective view of my improved registering-machine; Fig. 2, an end elevation of the same; Fig. 3, a perspective view of the reverser, and Fig. 4 a vertical transverse section of the reverser.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

In the drawings, A represents the body of a machine in connection with which this invention is designed to be used; B, the main shaft; C, the pulleys; D, the shipper; E, the counting or registering wheel; G, the ratchet; H, the first chute or hopper, and J the second chute or hopper; but as these parts are all common to the ordinary machine, and no claim is made to them when in and of themselves considered, a more particular description is deemed unnecessary. A lever, K, is pivoted at its outer end on the shaft of the ratchet G, the lever being provided with a pawl, *x*, and operated by a cam (not shown) on the shaft B, to move the ratchet-wheel G, and also the counting-wheel E, intermittently. In the ordinary machine the tickets are placed in the chute or hopper H, and are fed along past the wheel one ticket at a time by feeding mechanism, (not shown,) each ticket stopping con-

jointly with the wheel (which is moved intermittently by the ratchet) until its number is verified. For instance, if the tickets in the hopper H are numbered from 1 to 10, respectively, with number 1 on the bottom, the last-named ticket will be fed along and stop opposite the wheel E, its number being exactly opposite number 1 on the wheel, after which the wheel will be moved forward one number, and the ticket numbered 2 fed forward in the same manner as number 1, pushing number 1 out of the feeding-grooves and causing it to drop into the hopper J, and so on until all of the tickets in the hopper H have been fed past the wheel, their numbers compared with the numbers on the wheel, and the tickets dropped into hopper J in reverse order, or with number 1 at the bottom and number 10 at the top, and also wrongly faced.

To deliver the tickets to the hopper J in proper order and correctly faced, I make use of the reverser L, consisting of a hollow flattened tube opened at the ends and sides, as best seen in Fig. 3. This tube is preferably curved, so as to form the arc of a true circle, and has its upper end, *m*, attached to the top of the body A, directly in the path of the tickets, by means of screws passing through the holes *v*. A bracket, *d*, projects horizontally from the front end of the machine, to which the body of the reverser is attached, and by which it is held in proper position, as best seen in Fig. 1.

In the use of my improvement, the tickets, as they are fed past the wheel E from the hopper H, enter the mouth *a* of the reverser L in regular succession, and as they pass down the curve are reversed or turned upside down and properly "faced," or so arranged that the back of number 1 will adjoin the face of number 2, and so on through the series, so that when the tickets are removed from the hopper J, the numbers, counting from the bottom of the pile, will come in regular succession and the tickets be in their proper position in the package, or all face down, the tickets being turned in a body, after removal from the hopper, to bring number 1 on top.

When the reverser L is not used and the tickets are run through the machine as described the tickets will not be properly faced—that is to say, the face of number 1 will be adjoining

the back of number 2, and so on through the series, whereas the back of number 1 should ad-join the face of number 2 and the back of number 2 the face of number 3, and in the same order throughout the series. As the tickets *i* pass down the reverser L those in advance are forced forward by those in the rear, the edges *f* of the reverser being bent down in such a manner as to cause sufficient friction or tension on the tickets to prevent them from sliding freely down the groove formed by said edges, or so that but one ticket at a time will drop into the hopper J. The reverser L may also be attached to the machines on which the tickets are printed, and also to the machines on which they are counted or numbered, as well as to the machine described, by which the num-

bers are verified; and I therefore do not confine myself to its use on registering-machines designed merely for verifying the numbers of the tickets.

Having thus explained my improvement, what I claim is—

A ticket-reversing attachment for printing, numbering, or counting machines, consisting of a flattened curved tube provided with a slot in its side, the metal at the edge of the slot being curved or bent inwardly to produce friction on the tickets, substantially as and for the purpose specified.

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Witnesses:

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