

(No Model.)

2 Sheets—Sheet 1.

A. COX.
COUNTING MACHINE.

No. 551,180.

Patented Dec. 10, 1895.

Fig. 1.

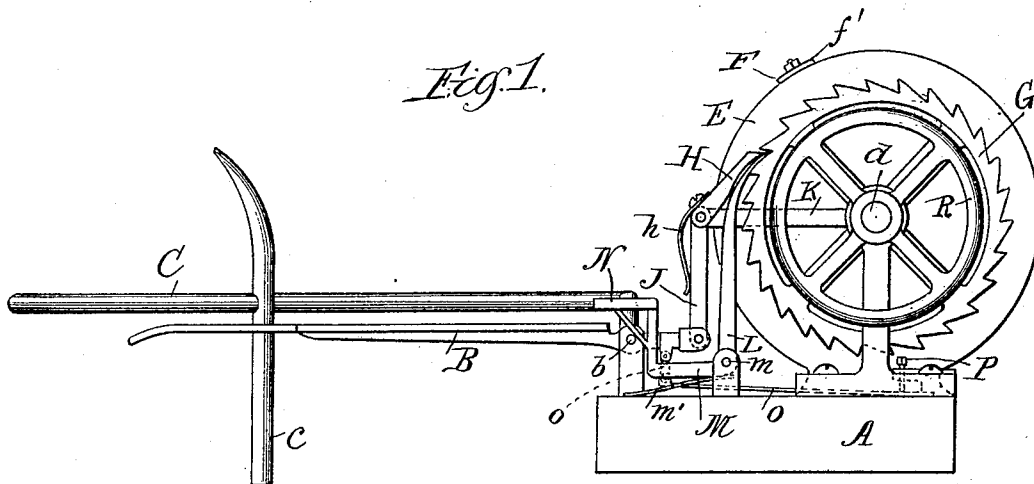
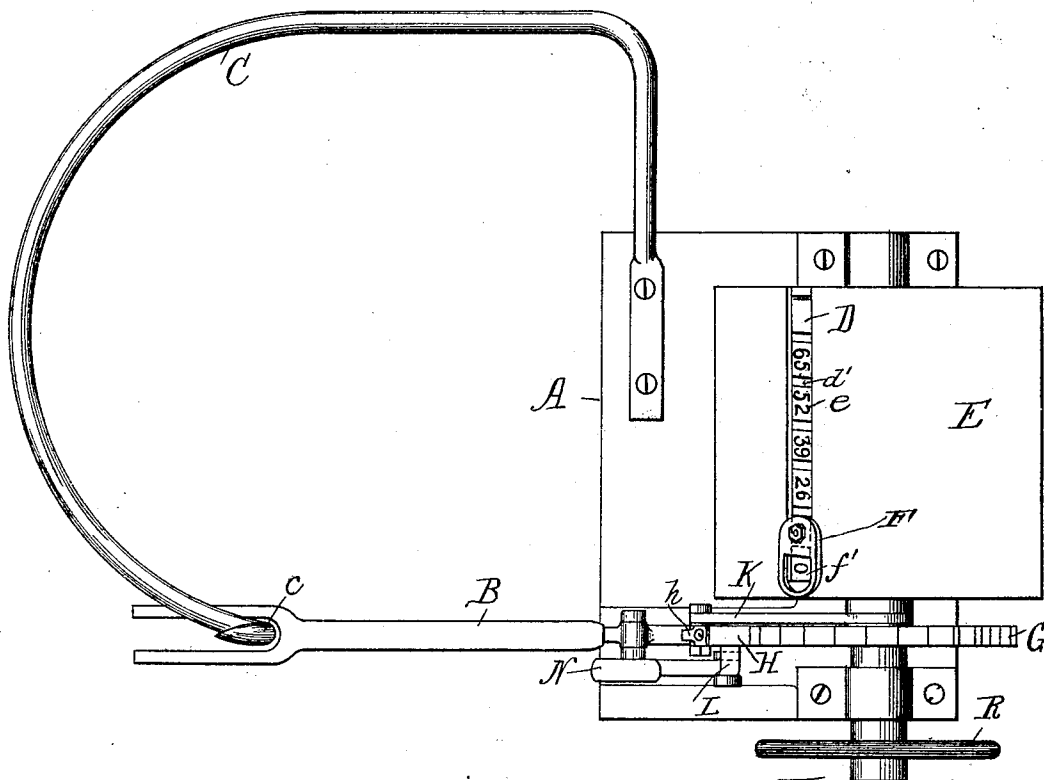


Fig. 2.



Witnesses.

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A. M. Munday.

Inventor.
Amos Cox

by Munday, Evans & Warrick

his Atty's

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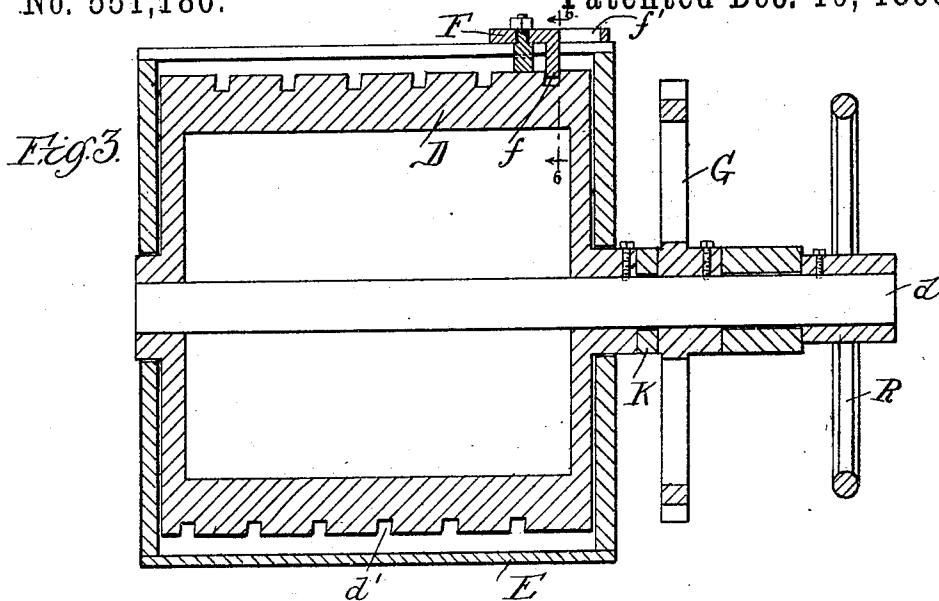


Fig. 4.

Fig. 4.

64	51	38	25	12	
64½	51½	38½	25½	12½	D
65	52	39	26	13	0
65½	52½	39½	26½	13½	±
66	53	40	27	14	1
66½	53½	40½	27½	14½	1½
67	54	41	28	15	2
67½	54½	41½	28½	15½	2½
68	55	42	29	16	3
68½	55½	42½	29½	16½	3½
69	56	43	30	17	4
69½	56½	43½	30½	17½	4½

Fig. 5.

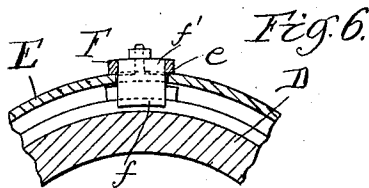
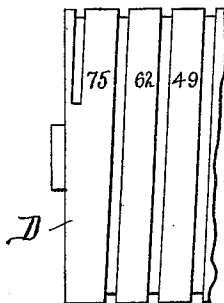
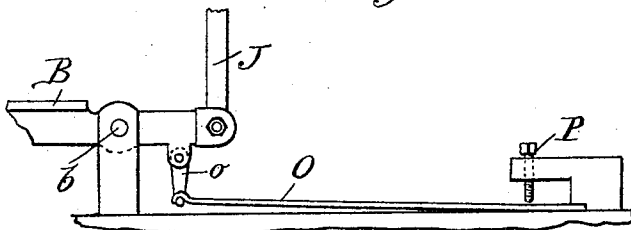


Fig. 7.



Witnesses.
S. M. Rheem.
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Inventor.
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UNITED STATES PATENT OFFICE.

AMOS COX, OF UNIONVILLE, MISSOURI.

COUNTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 551,180, dated December 10, 1895.

Application filed April 20, 1895. Serial No. 546,452. (No model.)

To all whom it may concern:

Be it known that I, AMOS COX, a citizen of the United States, residing in Unionville, in the county of Putnam and State of Missouri, have invented a new and useful Improvement in Counting-Machines, of which the following is a specification.

This invention is intended to afford store-keepers and others a convenient mechanism whereby they may register or count articles of merchandise while in the act of transferring the same from one receptacle or pile to another in the presence of the person from whom they may be buying or of the purchaser to whom they may be selling.

The invention is intended to prevent errors occasioned in such counting operations by lapses of memory or absent-mindedness, as the operator using it is not called upon to make a separate act of the registering operation.

The nature of the invention will be fully understood from the accompanying drawings, in which—

Figure 1 is an elevation, and Fig. 2 a plan, of my invention. Fig. 3 is a central section through the cylinder of the counting mechanism. Fig. 4 is an elevation of one side of the cylinder, and Fig. 5 is a partial elevation of the other side. Fig. 6 is a section on the line 6 6 of Fig. 3, and Fig. 7 is an enlarged detail showing the retracting-spring.

My invention is intended to be placed at the edge of a table or counter A, with the operating-lever B of the counting mechanism projecting in front of the counter or table. The counting or registering mechanism may be made in many different ways, and almost any mechanism adapted to count the impulses given to said lever may be used. I have, however, devised a construction of such mechanism which I believe to be specially well adapted to the use intended, and which I will describe later on.

As already stated, the lever B projects in front of the counter or table. This is in order that the user, while he has one or more of the articles of merchandise which are being counted in his hand, may move his hand downward and in so doing operate the lever B either by his hand or forearm and impart an actuation to the counting mechanism. It

is only necessary to enable the user to count accurately the articles of merchandise that, after taking them up in his hand, he should, before he lays them down, move his hand through a path which will actuate the lever B. To increase the certainty of this operation by prescribing a path for the hand, I place a guard C in proximity to the lever in such manner as to form with the lever an inclosure through which the hand will be moved while transferring the merchandise from one receptacle or pile to another. This guard may be made of wire and attached to and supported from the counter or table. The end which abuts against the lever is preferably provided with a vertical guide *c*. It is a comparatively easy matter for the user, while in the act of making the transfers of the merchandise, to move his hand through the path prescribed by this machine, and he does so mechanically and almost without any exercise of thought, so that the working of the registry is less liable to be overlooked than it would be if it were a separate operation. Disputes between buyers and sellers as to the number of articles sold are a frequent occurrence, and can be obviated by this device.

The lever B is preferably forked at its outer end, and the limbs of the fork extend to either side of the vertical guide *c*. This feature is intended to prevent the hand or arm being moved down through its prescribed path without imparting sufficient movement to the lever to cause an actuation of the registering mechanism, so that fraud is impossible.

The counting mechanism which I prefer to use consists of a numeral helically-grooved cylinder D mounted upon a shaft *d*, a surrounding case or shell E having a longitudinal slot at *e*, a sliding indicator F adapted to traverse said slot and having a stud *f* engaging with the groove *d'* of the cylinder, a ratchet-wheel G mounted upon the shaft *d*, and a pawl H actuated by the lever B and engaging with the ratchet. The cylinder between the courses of the groove is stamped or otherwise provided with figures in arithmetical order as shown, indicating the numbers from "0" up to "75," or such other number as may be convenient. In the case illustrated I have shown whole numbers and half numbers, so that the machine is adapted to register not only doz-

ens but half-dozens, many articles of merchandise, such as eggs, being most conveniently counted in half-dozens. This cylinder is preferably made in one piece. It will be
 5 seen from this construction that as the cylinder rotates it will impart a sliding movement to the indicator, and thereby position the indicator over the proper number upon the cylinder. The indicator is provided with an
 10 opening *f'* intended to thus expose the numbers upon the cylinder.

The lever B is pivoted at *b* and extends beyond said pivot to a pivotal connection with an upright arm J, which at its upper end is
 15 pivotally joined to the pawl H. A spring *h* is secured to the pawl and bears against the arm J, and its pressure tends to keep the pawl down against the ratchet-wheel. An arm K, one end of which encircles the shaft *d* and
 20 the other end of which is pivoted upon the pivot uniting the upright J and the pawl H, serves to retain the pawl constantly in operative relation to the ratchet-wheel. A second
 25 pawl L, the operative end of which is located immediately below the pawl H and engages the same tooth, is employed to prevent backward rotation of the cylinder. Pawl L is
 30 formed upon the upright end of an elbow-lever M, pivoted at *m* and acted upon by a spring *m'* in such manner as to retain the pawl against the ratchet-wheel. An extension N of the lever M serves as a thumb-piece
 35 whereby to throw both the pawls out of engagement when the cylinder is to be returned to its zero or starting position.

The retracting of the lever B after it has been actuated is accomplished by the spring O connected to the inner end of the lever by
 40 a link *o*. This spring is secured in its position by a set-screw P bearing upon its non-moving end.

The hand-wheel R attached to the shaft *d* enables the cylinder to be returned to its zero position whenever desired.

45 I claim—

1. The combination with a counter or table of a counting mechanism, a pivoted lever B actuating said counting mechanism and extending in front of the counter or table so it
 50 may be operated by the hand or arm of the user while engaged in transferring merchandise from one receptacle or pile to another, and a stationary guard C also extending in front of the counter or table and forming an
 55 inclosure through which the hand or arm may be moved, and also adapted to insure the actuation of the lever in the transferring operation, substantially as specified.

2. The combination with a counter or table

of a counting mechanism, an operating lever 60 therefor adapted to be operated by the hand or arm in transferring articles of merchandise, and a stationary guard such as C forming an inclosure through which the hand or
 65 arm may be passed in the transferring movement, substantially as specified.

3. The combination with a counter or table of a counting mechanism, an operating lever therefor projecting in front of the counter and adapted to be operated by the hand or
 70 arm in transferring articles of merchandise, and a guard forming an inclosure through which the hand or arm may be passed in the transferring movement, said guard being also adapted to operate with said lever to
 75 prevent movement of the lever without actuation of the counting mechanism, substantially as specified.

4. The combination with a counter or table of a counting mechanism, a pivoted lever B 80 actuating said counting mechanism and extending in front of the counter or table so it may be operated by the hand or arm of the user while engaged in transferring merchandise from one receptacle or pile to another, 85 and a guard C attached to said table or counter and forming an inclosure in front of the counter through which the hand may be moved, substantially as specified.

5. The combination with a counter or table 90 of a counting mechanism, a pivoted lever B actuating said counting mechanism and extending in front of the counter or table so it may be operated by the hand or arm of the user while engaged in transferring merchandise from one receptacle or pile to another, 95 and a guard C attached to said table or counter and forming an inclosure through which the hand may be moved, said guard having a vertical guide *c*, substantially as specified. 100

6. The combination with a counter or table of a counting mechanism, a pivoted lever B actuating said counting mechanism and extending in front of the counter or table so it
 105 may be operated by the hand or arm of the user while engaged in transferring merchandise from one receptacle or pile to another, and a guard C attached to said table or counter and forming an inclosure through which
 110 the hand may be moved, said guard having a vertical guide *c*, and said lever being forked with its limbs extending at either side of said vertical guide, substantially as specified.

AMOS COX.

Witnesses:

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 H. M. MUNDAY.