W. N. DURANT.

Tallying-Machine.

No. 200,267. Patented Feb. 12, 1878.

Fig. 1.

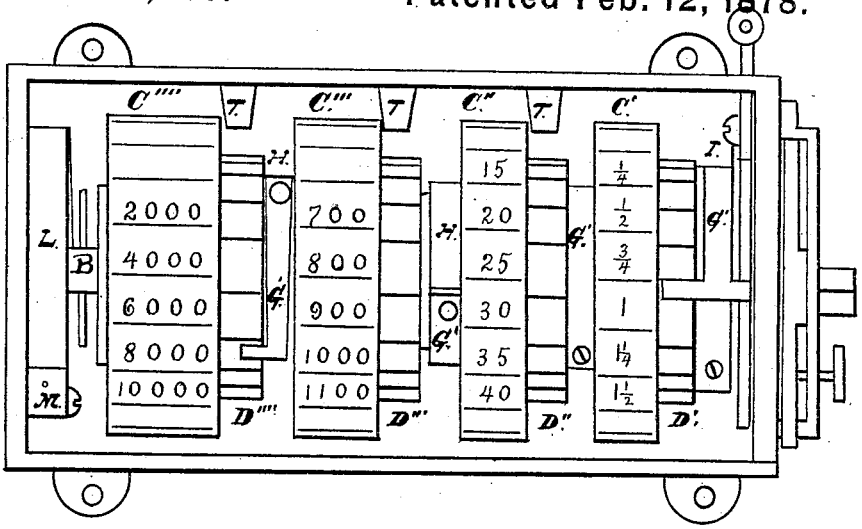
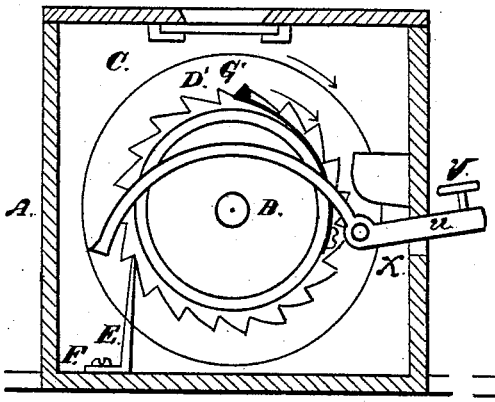
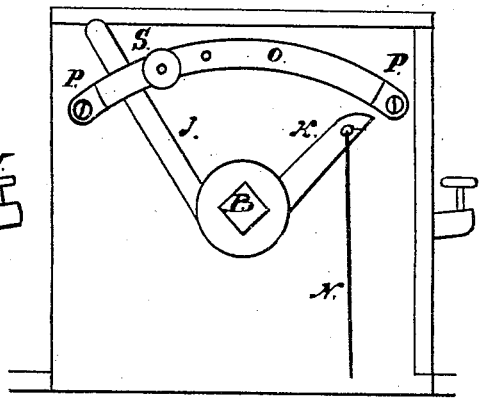


Fig. 3.

Fig. 2.





WITNESSES:

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UNITED STATES PATENT OFFICE.

WALTER N. DURANT, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN TALLYING-MACHINES.

Specification forming part of Letters Patent No. **200,267**, dated February 12, 1878; application filed September 14, 1877.

To all whom it may concern:

Be it known that I, WALTER N. DURANT, of the city of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Tallying-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 of the accompanying drawings represents a top view of my invention, the top side of the case being removed. Fig. 2 represents a sectional end view. Fig. 3 represents an end view, showing the device by which it is operated and adjusted to tally packages of different sizes.

The object of my invention is to furnish a device to be attached to a packing-machine for tallying automatically the number of barrels of flour or other packages packed, and which may be regulated at pleasure to tally either whole or any fractional part of a barrel, and which will at all times show the total sum added together in whole numbers, or in whole numbers and fractions, as the case may be, the result being shown in a line from left to right in the ordinary manner, all of which is further explained by reference to the accompanying drawings.

A represents the case of the machine, which is constructed of metal in a substantial manner. B is a shaft extending lengthwise through the case. C′ C″ C‴ C⁗ are tally-wheels, upon which the numbers by which the record is kept are written. They are arranged to revolve upon the shaft B from left to right, as indicated by the arrow. D′ D″ D‴ D⁗ are ratchet-wheels, each of which is respectively attached to the tally-wheel it bears against.

The ratchet and tally wheels are prevented from turning backward by the spring-pawl E, which is secured to the case with a screw, F. There are spring-pawls G′ attached to the shoulders H of the tally-wheels, which revolve with them. The wheel I acts independently of the others, and is permanently attached to the shaft B, and moves with it. The levers J and K are attached to the shaft B upon the outside of the case.

L is a coiled spring, the outer end of which is attached to the case with a screw, M. It is wound several times around and attached to the shaft B. A wire, N, is attached to the lever K, by which the tally is connected with the packing-machine and operated.

O is a gage attached to the case with screws P. The lever J vibrates upward and downward as each package is packed. There is a pin, S, which is inserted at different points in the gage, against which the lever J strikes, and by which the length of the stroke is regulated for tallying the various sizes of packages.

The lever V is attached to the case at *u* with a screw, X, which serves as its fulcrum, its office being to throw the pawl G′ from the ratchet-wheel D′ when adjusting the lever J for packing halves or quarter packages. By pressing down on the knob V, the lever J may be moved forward without moving the tally-wheels.

My device is operated as follows: As each barrel is packed the packing-machine, as it is being operated, draws upon the wire N, which, acting through the lever K, causes the shaft B to perform a partial revolution. When whole barrels are being packed, the pin S is withdrawn from the gage, so that the lever J may vibrate from one end to the other of the gage, which, acting through the shaft B and wheel I, causes the spring-pawl G′ to move over four notches of the ratchet-wheel D′, and thus moves the tally-wheel C′ four spaces, and thus whole barrels are tallied.

When quarter or half barrels are being packed, the pin S is adjusted so that the spring-pawl G′ will move over one or two notches, as the case may be.

When the tally-wheel C′ has performed one revolution, the spring-pawl G′ passes beneath and against the projection T, by which it is pressed into the ratchet D″, and thus causes the tally-wheel C″ to move forward one space. The figures upon the first space of the wheel C″ show the sum total tallied by the figures upon wheel C′; or the whole number of packages tallied by one revolution of the wheel C′ is indicated by the figures upon the first space

of the wheel C″ in whole packages; so the figures upon the first space of wheel C‴ indicate the number of packages tallied by one revolution of the wheel C″, &c., the other tally-wheels operating in the same manner. As wheel C‴ performs one revolution, wheel C⁗ moves one space, and thus the total sum of all the packages is shown in whole numbers, or in whole numbers and fractions, as the case may be.

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

1. The combination of the lever V, ratchets D′, and tally-wheels C′, and with spring-pawls G′, substantially as and for the purpose specified.

2. The gage O, provided with the adjusting-pin S, for regulating the stroke of the lever J substantially as and for the purpose set forth.

3. The combination of the rod N, levers K J, shaft B, and the tallying mechanism, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WALTER N. DURANT.

Witnesses:

JAS. B. ERWIN,

O. R. ERWIN.