C. E. RAND & J. T. DUPONT.

Registering Machine.

No. 160,349. Patented March 2, 1875.

Fig. 1.

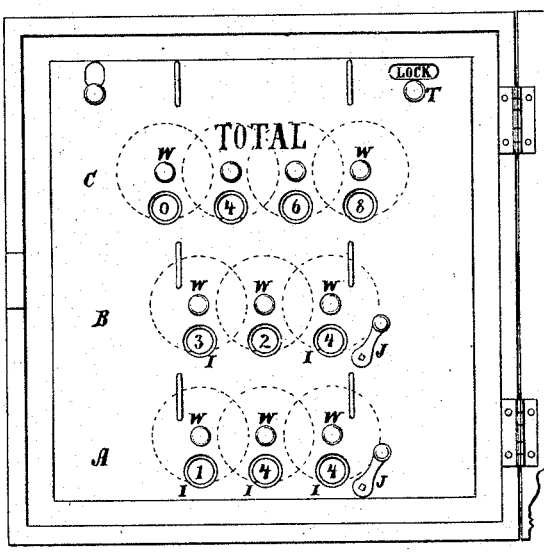


Fig. 3.

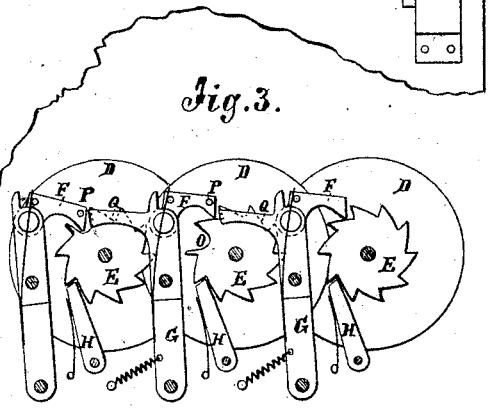


Fig. 4.

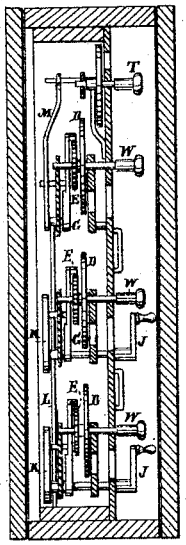
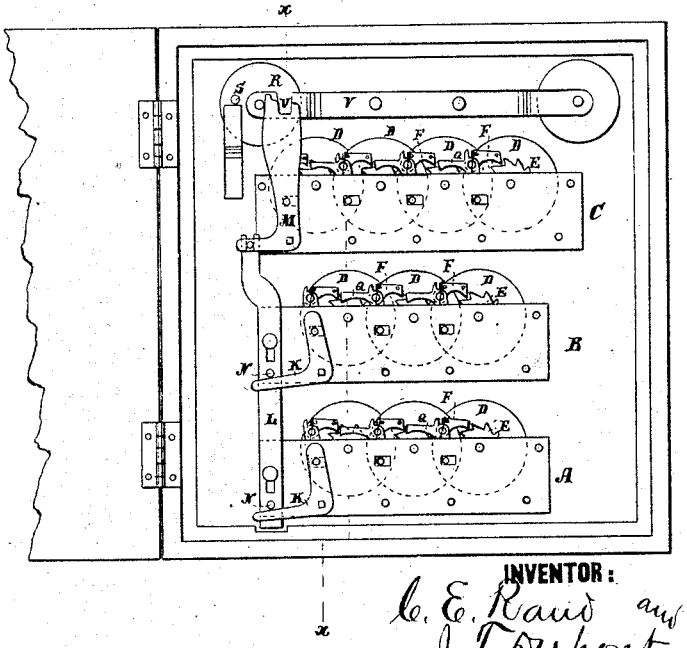


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES E. RAND AND JOHN T. DUPONT, OF NEW YORK, N. Y.

IMPROVEMENT IN REGISTERING-MACHINES.

Specification forming part of Letters Patent No. **160,349**, dated March 2, 1875; application filed January 11, 1875.

To all whom it may concern:

Be it known that we, CHARLES E. RAND and JOHN T. DUPONT, of the city of New York, in the county and State of New York, have invented a new and useful Improvement in Counting-Machine, of which the following is a specification:

Our invention consists of two or more ranges of counters for special objects, combined with another range which counts the totals of the special counters, all so contrived that any one of the special ranges may be worked together with the range for totals independently of the others.

Figure 1 is a front elevation of our improved machine. Fig. 2 is a rear elevation. Fig. 3 is a detail of a range of counters; and Fig. 4 is a sectional elevation of Fig. 2, taken on the line *x x*.

A and B represent a couple of ranges of counting and tallying disks, D, contrived with ratchet-disks E, pawls F, pawl-levers G, and holding-pawls H, for counting and registering units, tens, hundreds, &c., to be seen through the front plate at I. C is another range of similar contrivances for registering the totals of the other two, or any greater number that may be used, the object being to tally separately each particular kind or class of goods handled together, as in loading a ship, and at the same time tally the totals.

In order to operate the range C whenever any one of the other ranges is operated, and not operate the rest, the crank J for working each special range is made to turn a bell-crank, K, which is made to operate the range C for totals by lifting the bar L, which throws the lever M of range C. The levers K connect with bar L by pins N in such manner that it is lifted by any one of them without the moving of the others, thus causing the range for totals to tally every time any one of the others does.

For turning the different disks of a range from time to time, as required for carrying tens, and allowing them to rest while the others are turning, each ratchet-wheel has one notch, O, deeper than the rest, and the pawl F, which drops into it, has a pin, P, which then falls against the arm Q of the pawl-lever of the next disk in the range, and pushes it at the same time that the pawl turns its own disk.

To lock the machine so that it cannot be shifted to falsify the tally, we have a disk, R, with a pin, S, to be turned by the thumb-bit T into the notch U in the lever M, and also in the bar V. Each disk has a thumb-bit, W, projecting out through the front plate of the machine, so as to turn the disks backward for readjusting them.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The combination of two or more special ranges, A B, of tallying apparatus, with another range, C, connected with the apparatus, for working them in such manner that it tallies for each tally of the special ranges, substantially as specified.

2. The combination of the bar L with the bell-cranks K of two or more ranges of special tallying apparatus and the lever M of a range for totals, substantially as specified.

3. The revolving pin S and notched bar V, in combination with the notched lever M of the tallying-range C, substantially as specified.

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Witnesses:
T. B. MOSHER,
ALEX. F. ROBERTS.