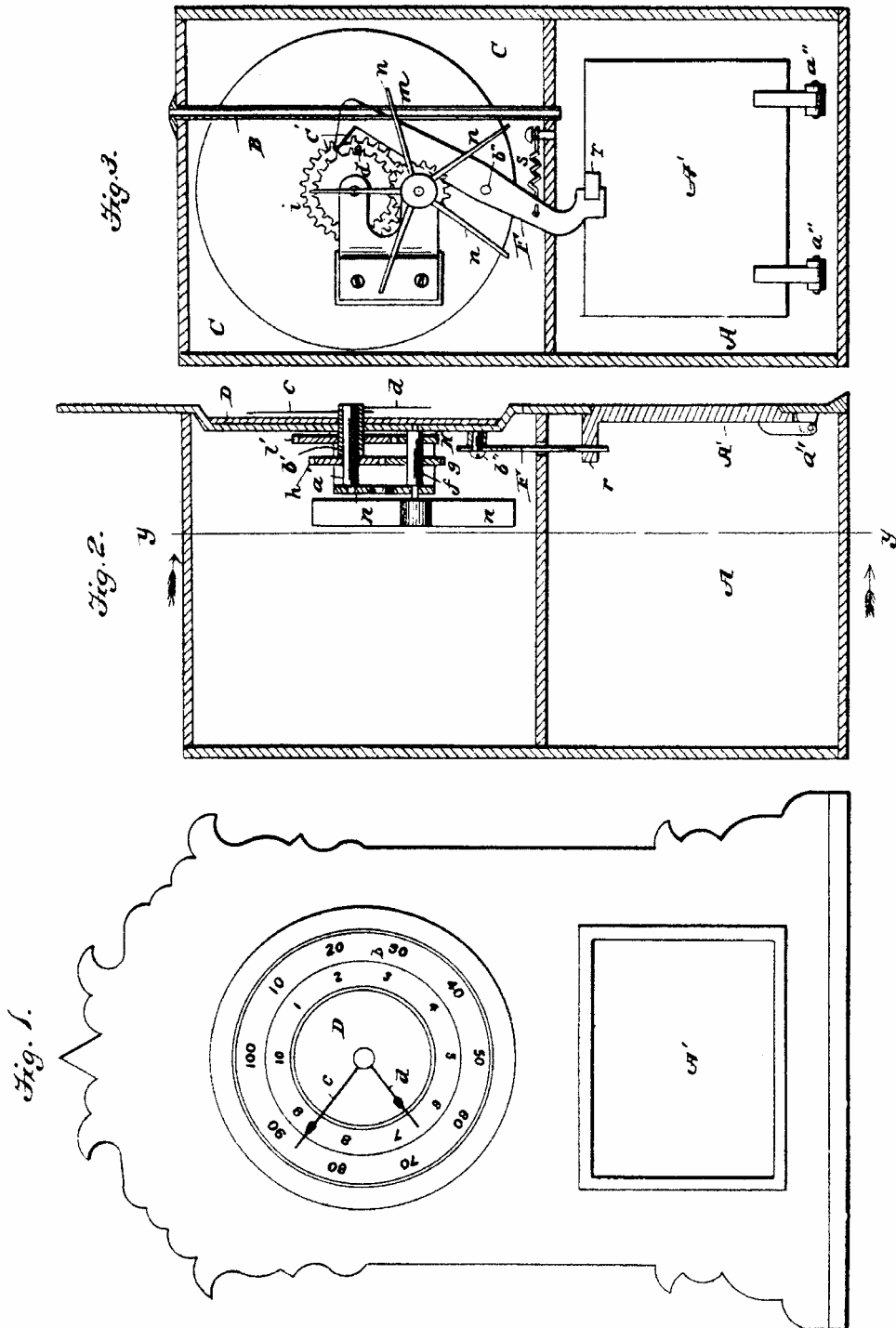


(No Model.)

A. S. & L. A. MUNGER.
REGISTERING TOY SAVINGS BANK OR SAFE.

No. 423,528.

Patented Mar. 18, 1890.



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UNITED STATES PATENT OFFICE.

ALFRED S. MUNGER AND LOUIS A. MUNGER, OF WOODHAVEN, NEW YORK.

REGISTERING TOY SAVINGS BANK OR SAFE.

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Application filed September 6, 1889. Serial No. 323,224. (No model.)

To all whom it may concern:

Be it known that we, ALFRED S. MUNGER and LOUIS A. MUNGER, both of Woodhaven, in the county of Queens and State of New York, have invented certain new and useful improvements in Toy Savings Banks or Safes; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to that class of cash boxes or receivers very commonly employed by children and others for holding coin, and is termed "toy savings-banks," "safes," &c. The object of said invention is to provide an automatic means for registering the number of coins of a given character as they are placed in the receptacle, or, in other words, for indicating the amount contained in said receptacle and comprising uniform coins.

Figure 1 is a face view of an apparatus constructed according to our said invention. Fig. 2 is a vertical sectional view, and Fig. 3 is a vertical sectional view taken in the line *y y* of Fig. 2.

A is the cash-box which receives the coins, and which should be provided with suitable means—as, for example, a door *A'*—and appropriate fastenings for securing the same to prevent the removal of the coins. The coins are introduced into the box *A* through a chute *B* of suitable diameter and cross-section. Around this chute may be provided a chamber *C* to inclose the operative mechanism, herein presently described, and to support the dial *D*, which, as shown in Fig. 1, is placed at the front of the apparatus. This dial is provided with two concentric scales—one *a* bearing a certain determinate ratio to the other *b*, this ratio being that between the denomination of the coin to receive which the apparatus is constructed and that of its multiple embraced in a coin of a higher value. Thus, for example, one circuit of the scale *a* will indicate by one revolution of the index-finger *c* that one hundred coins have been deposited. Simultaneous with the movement of the index-finger *c* a second index-finger *d* is moved a definite distance, (indicated by the figures of the scale *b*.) this movement thus registering on the last-named scale one rota-

tion of the index-finger *c*. Thus, assuming the coins employed to be cents and the scale *a* to comprise the numbers from 1 to 100, inclusive, each complete one hundred cents will be indicated by the movement from one figure to another of the index-finger *d*. In other words, the index-finger *d* will register the value of a dollar as it moves from one figure to another, while the fractional parts of a dollar will be indicated by the position of the index-finger *c* with reference to the scale *a*.

The figures of the scale *a*, instead of comprising all consecutive figures, may comprise any suitable series, as from 0 to 10, from 10 to 20, &c., as represented in Fig. 1.

The index-fingers *c* and *d* are connected by suitable spur-wheels or gearing to insure their requisite rotation with the requisite ratio of speed. They may be attached, the one to a central arbor *a'*, the other to a sleeve *b'*, surrounding said arbor, after the manner usual in clocks. An arbor *f* carries a spur-wheel *g*, which gears into a spur-wheel *h* on the arbor *a'*, so that the movement of the arbor *f* around its axis gives a diminished movement to the arbor *a'*, and consequently to the index-finger *c*. On the sleeve *b'* is placed a spur-wheel *i*, which gears into a smaller spur-wheel *k* on the arbor *f*, so that the rotation of the latter communicates a diminished movement to the index-finger *d*. By observing due proportions between the diameters of the spur-wheels *g* and *h*, and the spur-wheel *i* and the spur-wheel *k*, the requisite ratio between the movements of the two index-fingers is secured.

The chute or guide *B* is slotted transversely, as shown at *m*. Upon the arbor *f* are radial spokes or arms *n*, so arranged that in the rotation of the arbor *f* the outer ends of said arms *n* extend into and through the space *m* of the chute *B*, so that a coin of the requisite size and weight falling through the chute will fall upon the arm *n*, which at the time extends through the slot *m*, and by its weight and momentum will carry said arm downward, thereby rotating the arbor *f* to an extent sufficient to cause the index-finger *c* to move the proper distance along the scale *a* to indicate thereon the deposit of a single coin, the same movement of the arbor *f* of course simultaneously actuating the index-finger *d* to move the said finger to such ar-

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extent that a definite number of such movements will carry the same from one figure to another on the scale *b*, and thus indicate the deposit of a number of similar coins equal to one of a larger. As the arms *n* pass successively through the slot *m*, any desired number of coins of the proper size and weight may be deposited in succession in the cash-box *A*.

10 At that side of the door *A'* opposite the hinges *a''* thereof is a catch *r*, behind which plays the lower end of a latch-lever *F*, the latter being pivoted, as at *b''*, with its lower end brought toward the latch *r* by a spring *s*. The upper arm of this latch-lever *F* is provided with an incline *c'*. A stud *d'* is provided 15 the spur-wheel *i* in such manner that when the said spur-wheel has completed a rotation its said stud will impinge upon the incline *c'*, and by throwing outward the upper arm of the lever *F* will bring the lower arm of said lever away from the catch *r*, thereby permitting access to the contents of the cash-box *A*.

25 What we claim as our invention is—
1. The combination, with the cash-box *A*, of the chute *B*, having the slot *m*, the dial hav-

ing the scales *a* and *b*, bearing a definite ratio with each other, the index-finger *c*, carried on the arbor *f*, the index-finger *d*, carried on the sleeve *b'*, the gear or spur wheels *g*, *h*, *i*, and *k*, and the spokes or arms *n*, attached to the arbor *f* and revolving through the chute-slot *m*, the whole arranged substantially as and for the purpose herein set forth.

2. The combination of a latch-lever *F*, having an incline *c'*, with the cash-box *A*, the door *A'*, having the catch *r*, the chute *B*, having the slot *m*, the dial *D*, having the scales *a* and *b*, the index-finger *c*, carried on the arbor *f*, the index-finger *d*, carried on the sleeve *b'*, the gear or spur wheel *i*, having the stud *d'*, the gear or spur wheels *g*, *h*, and *k*, and the spokes or arms *n*, attached to the arbor *f* and revolving through the chute-slot *m*, all substantially as and for the purpose herein set forth.

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