

No. 891,243.

PATENTED JUNE 23, 1908.

J. T. GARTON.
CHANGE MAKING MACHINE.
APPLICATION FILED JULY 5, 1907.

2 SHEETS—SHEET 1.

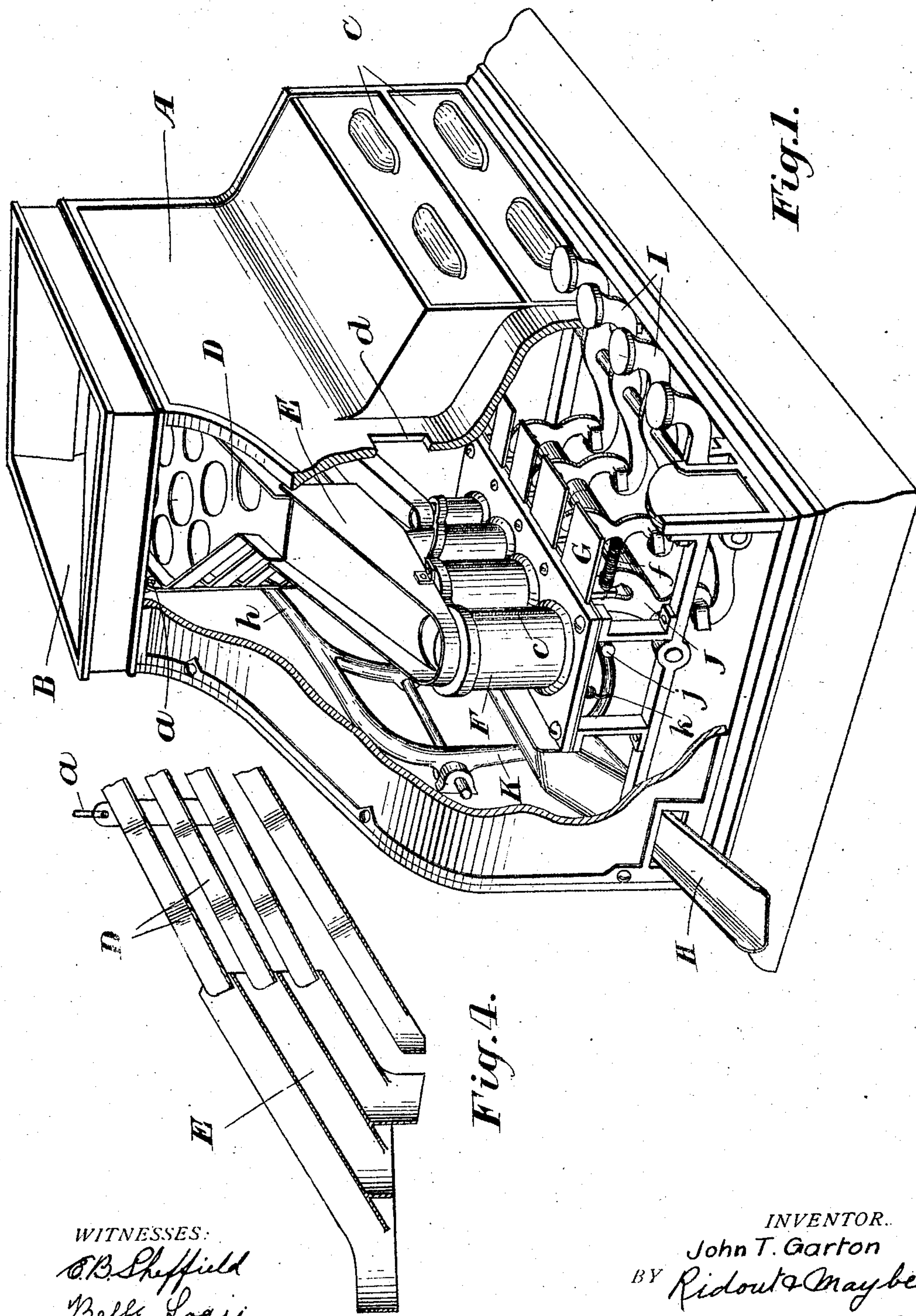


Fig. 1.

WITNESSES:

C. B. Sheffield
Belk Logie

INVENTOR.

John T. Garton

BY

Ridout & Maybee

ATTORNEYS

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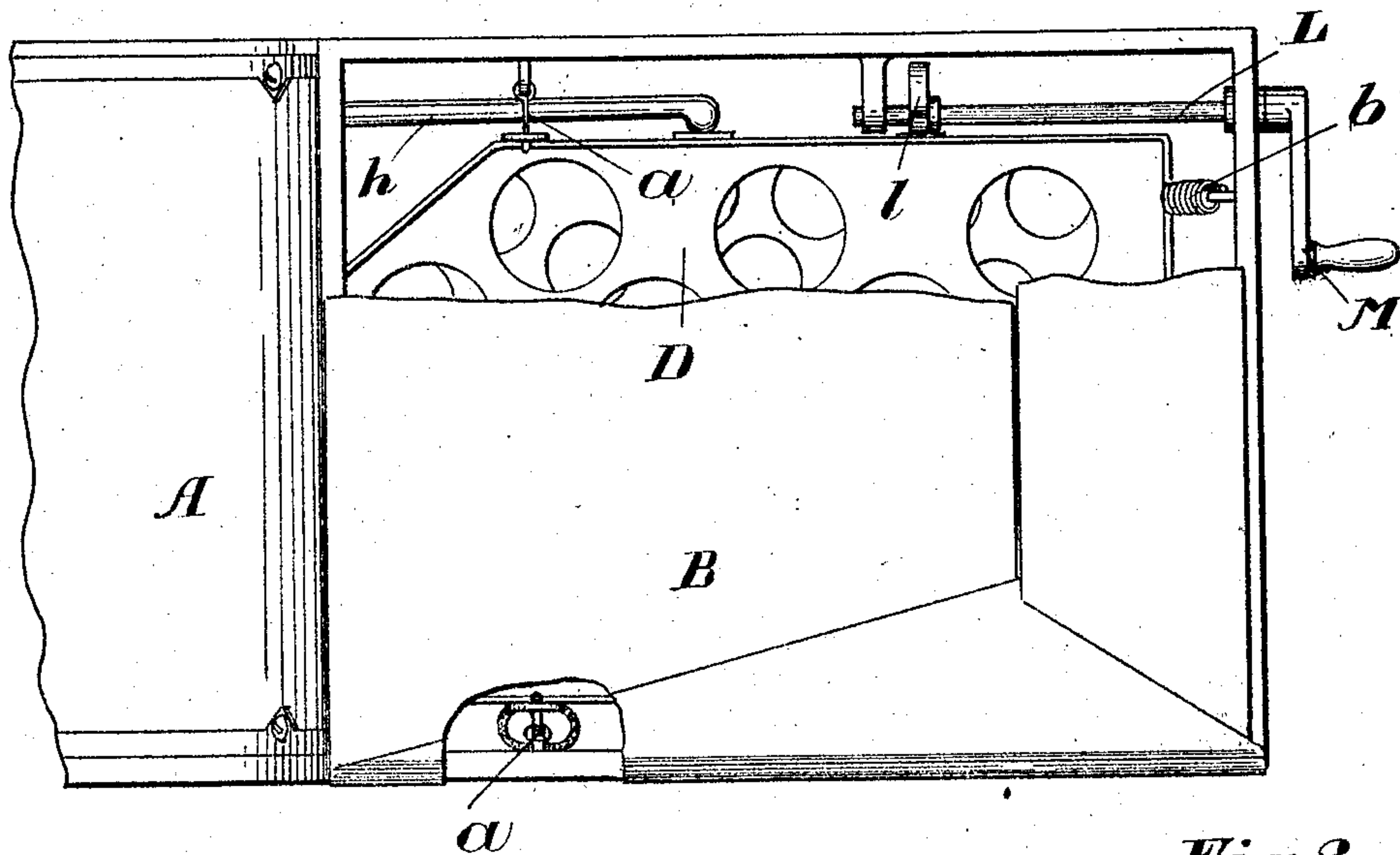


Fig. 2.

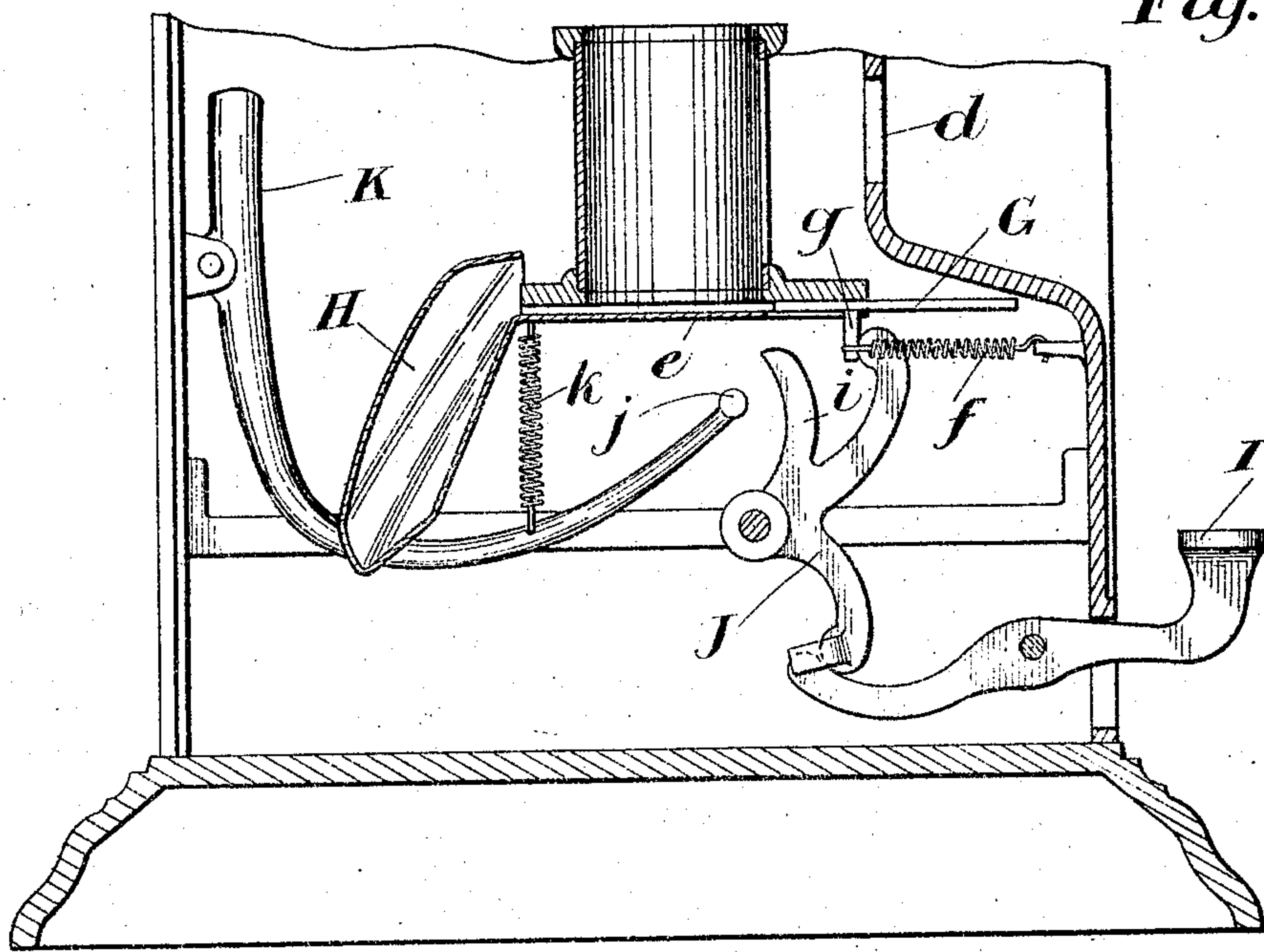


Fig. 3.

WITNESSES:

E. B. Sheffield
Wells Logie

INVENTOR.

John T. Garton

BY

Redout & Maybur
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN THOMAS GARTON, OF TORONTO, ONTARIO, CANADA.

CHANGE-MAKING MACHINE.

No. 891,243.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed July 5, 1907. Serial No. 382,333.

To all whom it may concern:

Be it known that I, JOHN THOMAS GARTON, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Change-Making Machines, of which the following is a specification:

My invention relates to change making machines in which mixed coins are sorted out, and from which any desired coin or coins may be discharged by depressing certain keys, and my object is to devise apparatus of this kind which will more effectively separate mixed coins than those now known, and which may be caused to deliver any desired coin or coins with absolute certainty.

The basis of my machine is a series of separating screens each provided with a number of suitable holes so that it will stop and tail off one size of coin and pass all coins of smaller size. I have found by careful experiment that such screens will not properly separate mixed coins unless they are agitated, and my apparatus is constructed so that the depression of any one of the keys employed to eject coins from the apparatus will agitate the screens and shake down the coins thereon.

Figure 1 is a perspective view of my improved machine. Fig. 2 is a plan view of part of the machine partly broken away. Fig. 3 is a vertical cross section showing the coin discharging mechanism. Fig. 4 is a sectional detail of parts of the sorting screens and the spouts into which they discharge.

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

A is a suitable casing provided at the top with a hopper B, and also provided with one or more drawers C for bills.

The sorting part of the device comprises a series of sorting screens D, suitably connected and supported so that they may be vibrated, suitable hangers such as *a* being provided for this purpose. A hanger *b*, formed of a coil spring, is also employed to aid in the agitation of the screens. Each screen is provided with holes of a suitable size to enable it to retain all coins of the size it is expected to tail off and to pass all smaller coins. The lowest screen will of course be unperforated as it is expected to tail off all coins passed to it, the number of screens employed depending of course on the

number of different sizes of coins employed in the country in which the device is used. I have illustrated the device as used with Canadian silver money, namely fifty cent pieces, twenty-five cent pieces, ten cent pieces and five cent pieces.

Each screen discharges into one of the spouts E. These spouts lead to the coin tubes F of suitable size to receive the different coins. Each coin tube is preferably provided with a slot *c* in the front thereof which enables the operator to see when the tubes become empty, an opening *d* being provided in the casing through which the tubes may be examined.

A coin expelling slide G, of the same thickness as the coins contained in the tube, is adapted to be projected across the bottom of the tube, and is carried on the guide way *e*. By projecting one of these slides rearwardly a coin may be projected through the guide way *e* and into the coin chute H, which leads, as shown, to the outside of the machine and discharges the coins received by it on to the counter.

Each slide G is normally maintained in its forward position by means of a coil spring *f*. For the purpose of operating the slides G I provide a series of keys I, suitably fulcrumed within the casing A, and projecting out therefrom as shown. Each key at its inner end has a sliding engagement with a bell crank lever J, suitably fulcrumed within the casing. The other arm of each bell crank lever has a sliding engagement with a lug *g* to which the spring *f* is attached.

It is evident that by depressing a key the corresponding slide will be shot rearwardly, and on the release of the key the slide will be returned to its normal position by the spring *f*.

I have found from experience that coins cannot be properly sorted out by any system of stationary screens. If the screens be set on too small an inclination the coins will not slide down them. If the screens are at a sufficient inclination for the coins to slide freely many coins will be tailed off that should pass through. I have therefore devised means whereby the screens may be agitated each time a key is depressed to make change. For this purpose I provide a bent lever K fulcrumed on the casing, and having one arm *h* in a position to engage the screens D, and the other provided with a bar

j which lies in the path of the bent arms *i*, formed on the bell crank levers *J*.

A coil spring *k* connected to the lever and to a suitable stationary part tends to maintain the lever *K* in its normal position. The depression of a key, however, causes one of the arms *i* to strike the bar *j*, thus rocking the bent lever *K* and causing the latter to jar the screens. This agitation is sufficient to shake down the coins, and it will be observed that it does not require any thought on the part of the operator but takes place automatically every time he makes change. It is desirable, however, to devise means whereby when a coin is first placed in the machine it may be sorted out without the necessity of depressing the change making key. I therefore journal in the casing a shaft *L*, provided within the casing with a cam *l* adapted to strike and agitate the screens, and outside the casing provided with a crank handle *M*, by means of which it may be rotated when desired.

It will be seen therefore that I have devised effective means for properly sorting coin of all kinds, and for delivering the same in any desired quantity and of any desired denomination by the simple operation of depressing one or more keys.

What I claim as my invention is:—

1. In apparatus of the class described the combination of suitably supported sorting screens; a plurality of coin delivering devices to which the said screens deliver; keys adapted to operate said devices; and means whereby the operation of a key will agitate the screens.

2. In apparatus of the class described the combination of suitably supported sorting screens; a plurality of coin delivering devices to which said screens deliver; keys adapted to operate said devices; means whereby the operation of a key will agitate the screens; and a device independent of the key for agitating the screens.

3. In apparatus of the class described the combination of sorting screens movably supported; a lever fulcrumed intermediate its ends and adapted at one end to engage the screens; a pivoted key adapted to engage and rock the other end of said lever; and a spring tending to retain the lever in its normal position.

Toronto, Ont., 3d July, 1907.

JOHN THOMAS GARTON.

Signed in the presence of—

JOHN G. RIDOUT,

J. EDW. MAYBEE.