

C. C. YEAMANS & E. D. ABBOTT.
CALCULATING MACHINE FOR WEIGHTS AND VALUES.

No. 551,520.

Patented Dec. 17, 1895.

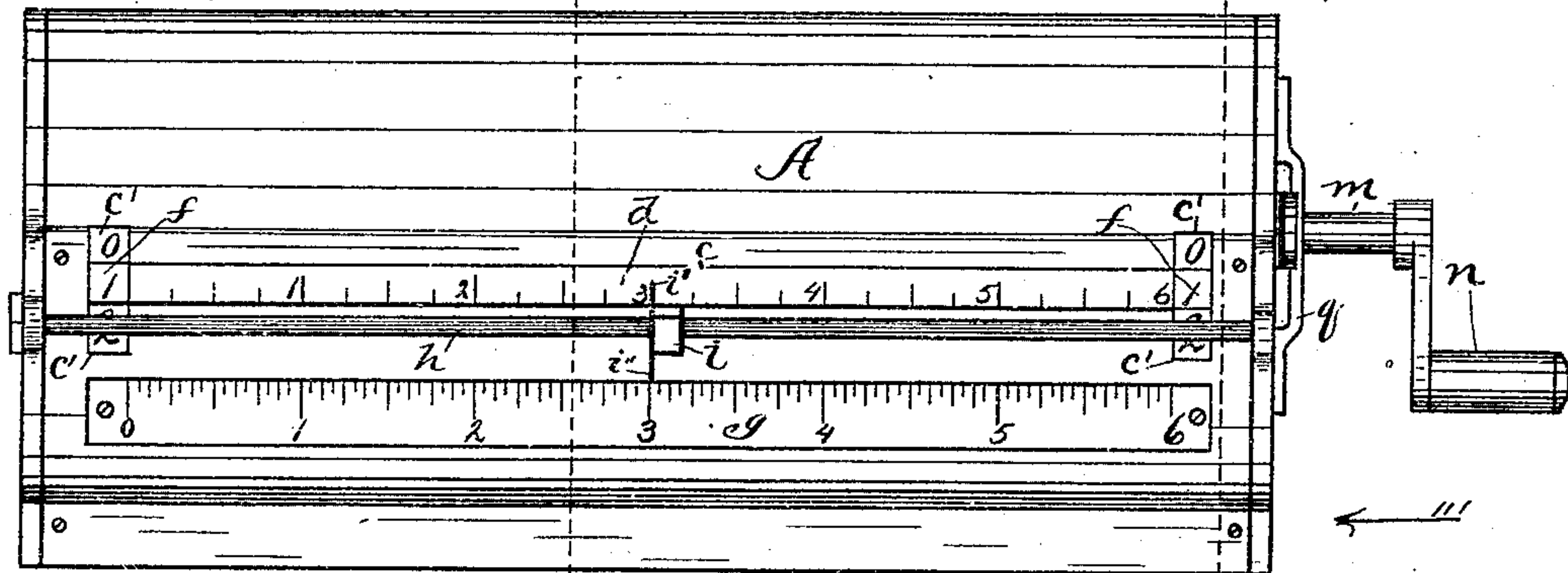


Fig 1.

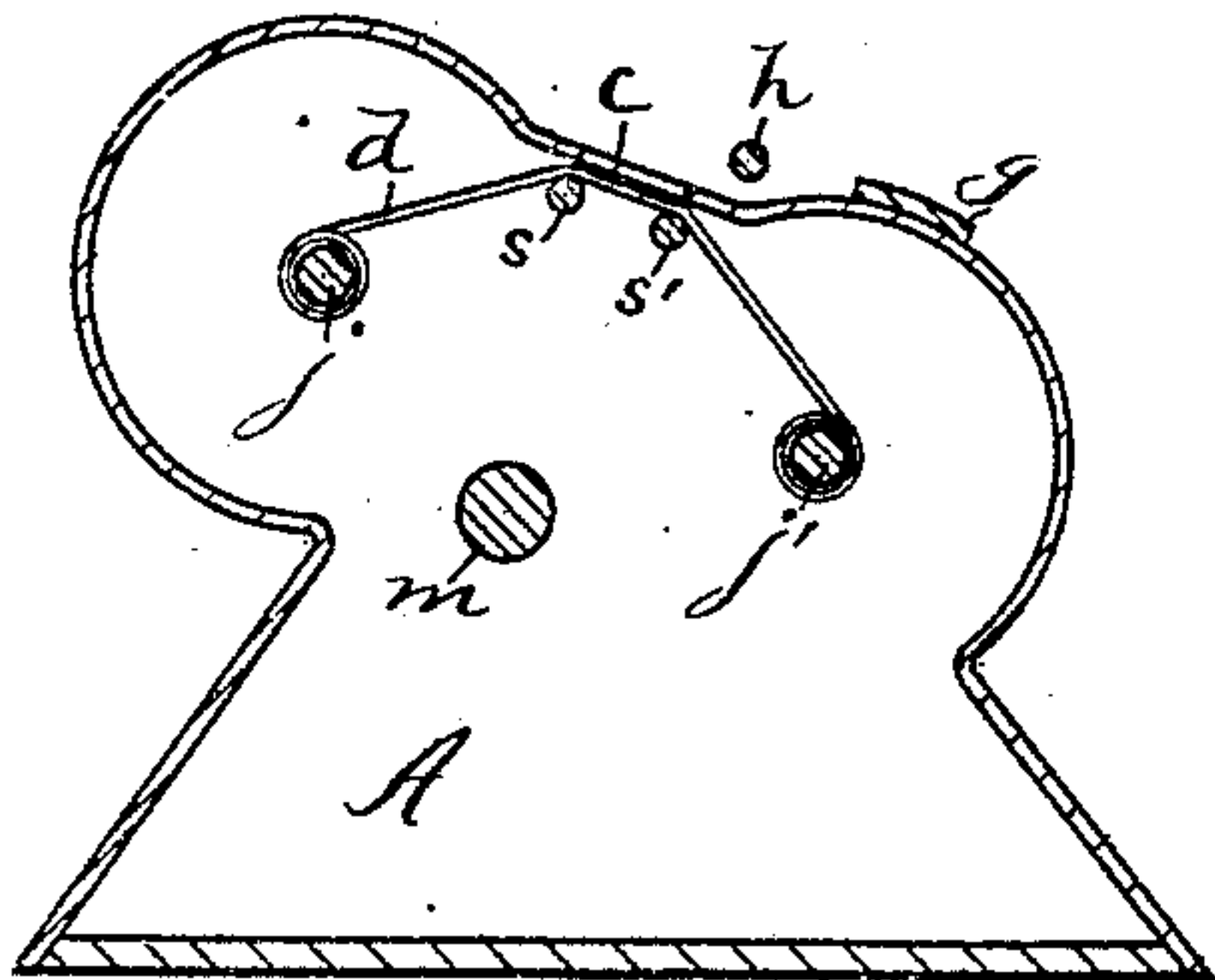


Fig 2.

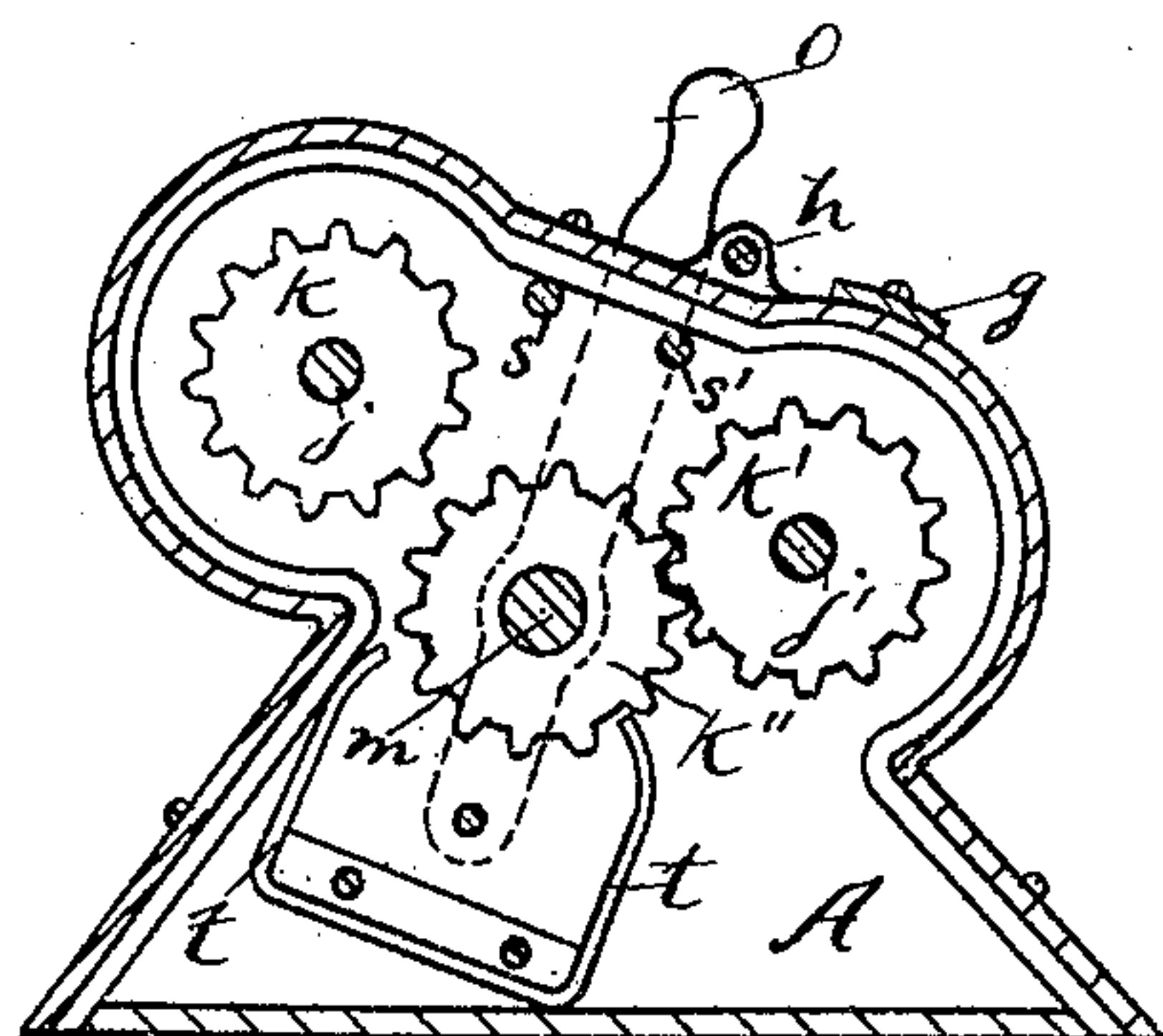


Fig 3.

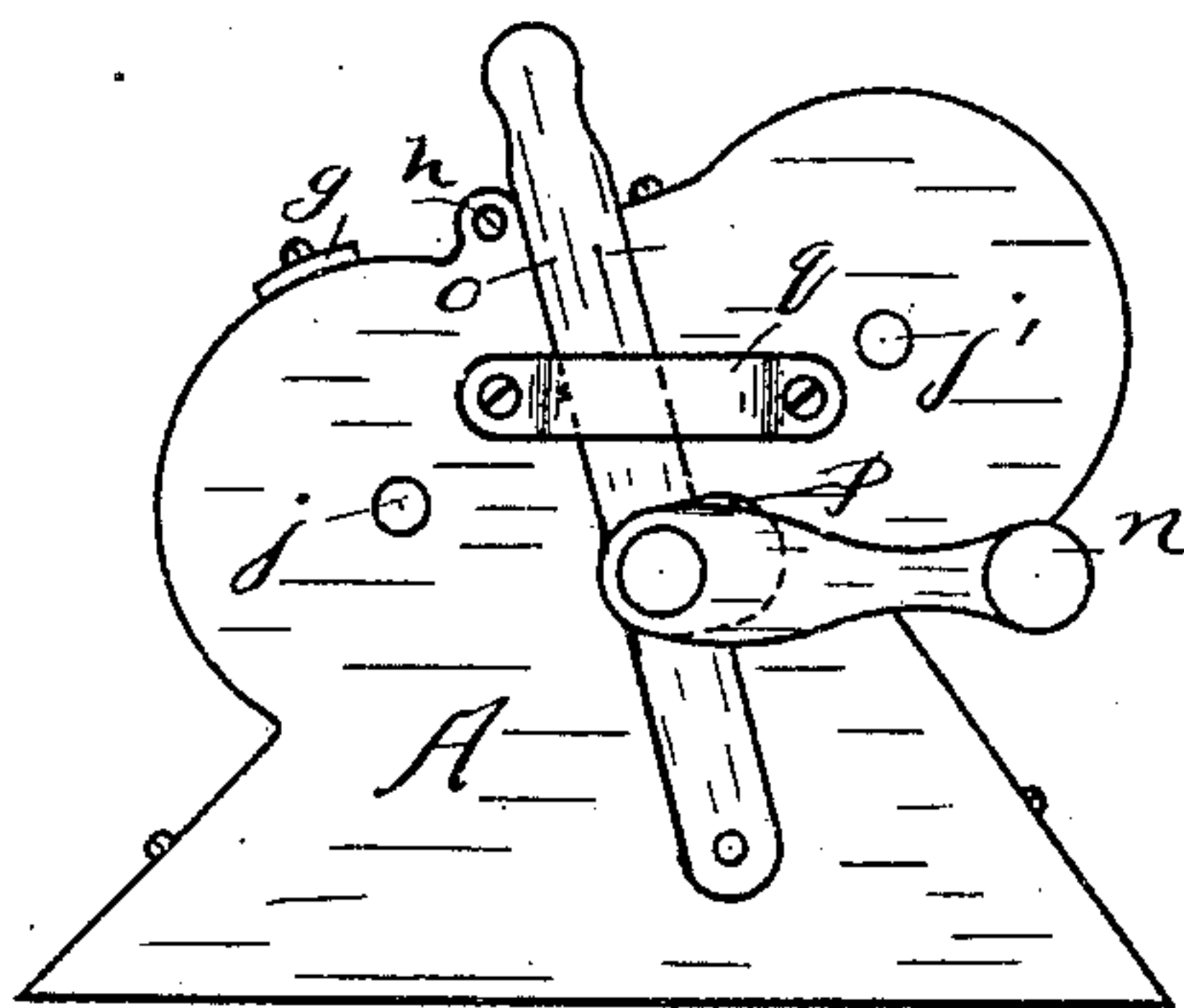


Fig 4.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

α									
1	5	6	7	8	9	10	11	12	13
1 1/4	6	7	8	9	10	11	12	13	14
1 1/2	7	8	9	10	11	12	13	14	15
1 3/4	8	9	10	11	12	13	14	15	16
2	9	10	11	12	13	14	15	16	17
2 1/2	12	13	14	15	16	17	18	19	20
3	14	15	16	17	18	19	20	21	22

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UNITED STATES PATENT OFFICE.

CHARLES C. YEAMANS AND ELMER D. ABBOTT, OF DAYTON, OHIO.

CALCULATING-MACHINE FOR WEIGHTS AND VALUES.

SPECIFICATION forming part of Letters Patent No. 551,520, dated December 17, 1895.

Application filed May 8, 1895. Serial No. 548,551. (No model.)

To all whom it may concern:

Be it known that we, CHARLES C. YEAMANS and ELMER D. ABBOTT, of Dayton, county of Montgomery, State of Ohio, have invented a
5 new and useful Improvement in Calculating-Machines; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and
10 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.

Our invention relates to new and useful improvements in calculating-machines, such as are designed for use in stores and other places where goods or commodities are sold in pound
15 quantities or fractions of pounds.

The object of the invention is to provide
20 a simple and inexpensive contrivance by means of which the weight and value of any specific quantity of goods within the capacity of the calculator may be shown.

To this end the invention consists of parts
25 that will be fully described in the specification and the points of novelty set forth in the claims.

Referring to the annexed drawings, Figure 1 is a top view of our improved calculator;
30 Fig. 2, a section on the line 2 2, Fig. 1; Fig. 3, a section on the line 3 3, Fig. 1; Fig. 4, an end elevation looking in the direction of the arrow, Fig. 1. Fig. 5 is a detached detail view of portions of the calculating-sheet.

The same letters of reference indicate the same or corresponding parts in the several
35 views.

A designates a metallic inclosing case, substantially of the contour shown in Fig. 4.
40 A' is the base to which said case is attached.

c designates a longitudinal slot in the upper concaved portion of the case and terminating at both ends in slots c' at right angles thereto.

45 d designates a calculating-sheet which is movable below this slot by means presently described. The said sheet may be of any suitable material having a proper tenacity—for example, prepared linen. The numerals
50 on the extreme edges of said sheet at f f represent prices per pound of any article rang-

ing from one to seventy-five cents, while the intervening numerals on said sheet represent the total value of the goods sold.

g designates a metallic scale attached to
55 the upper part of the case parallel with the longitudinal slot c. The numerals on this scale g represent units of weight, and the same operation that shows the value of the goods sold will also show the weight, as will
60 presently appear. Running parallel with and between the longitudinal slot c and the scale g is a round or square rod h having its ends rigidly mounted in the ends of the casing.

i is a sliding pointer mounted on this rod
65 and adapted to be freely moved thereon from end to end. The ends i' and i'' of said pointer point to the numerals on the sheet d and scale g.

Describing now the means for moving said
70 sheet, j and j' designate two parallel rollers or rods having their ends journaled in the ends of the case. The ends of the sheet d are attached to these rollers and said sheet is wound back and forth thereon by means of spur gear-
75 wheels k and k' which are rigidly mounted on ends of the rollers j' and j and inclosed in the case. These gears are alternately driven by a primary spur-gear k'', which is rigidly
80 mounted on a shaft m suitably journaled in an end of the case. n designates a crank mounted on the outer end of said shaft m, by means of which one or the other of gear-wheels k or k' may be rotated in opposite directions to wind the sheet back and forth. The gear
85 k² is put into operative connection with the spur-gear k or k' by means of a hand-lever o, in which the shaft m properly has its bearing. The said lever is pivoted to the outer end of the case at o', and by means of an oblong slot
90 p in that end of the case it is enabled to shift the shaft m to bring the wheel k'' in gear with either of the wheels k or k'.

q designates a guide-support for the upper
95 portion of the lever o.

The calculating-sheet is maintained in close proximity to the slot c, so as to admit of an easy reading of the indications thereon, by means of parallel guide-rods s s', the ends of which are journaled in the ends of the case.
100

t designates a detent attached to the inner side of an end of the case adjacent to the gear-

wheels, the object of which is to prevent the wheel k'' from turning backward when in gear with either of the wheels k or k' .

The device as described in the foregoing is inexpensive and practically answers the purposes of many of the high-priced scales that are now in the market, with the advantage of having no levers to contend with.

Briefly illustrating an operation of the device, the crank n is turned until whatever price per pound desired is brought to the sight-opening c' . In Fig. 1 the unit "1" appears, which indicates one cent per pound. The sliding pointer i is then moved along the rod h until it reaches the amount of the purchase, as in Fig. 1, where it points to "3" on the sheet and "3" on the scale g . This means that the purchaser calls for three cents' worth of an article selling at a cent per pound.

Having fully described our invention, we claim—

1. In a calculating machine, the combination with an inclosing case provided with a longitudinal slot in its upper surface, of a sheet having numerical indications on its outer edges designating prices per pound, and similar indications between said end indications designating the value of the quantity of goods sold at a given rate per pound, rollers upon which said sheet is mounted, gear wheels mounted on said rollers, a primary actuating gear wheel to alternately rotate

said gear wheels in opposite direction, a hand lever upon which said primary actuating spur gear is mounted, whereby means are provided for changing the axis of rotation of said primary gear so as to rotate the roller gear wheels alternately in opposite directions, substantially as described.

2. In a calculating machine the combination with an inclosing case provided with a longitudinal slot in the upper surface and an oblong slot, in an end thereof, and a scale of weights parallel with said longitudinal slot, of a winding sheet upon which are indicated prices per pound and the cost of specific quantities of goods sold, rollers upon which said sheet is mounted, spur gear wheels mounted on said rollers, a hand lever fulcrumed on an end of said case, a shaft mounted on said lever and projecting through the oblong slot in said case, a primary actuating spur gear mounted on said shaft and adapted to gear with either of the gear wheels on said rollers, and a crank by means of which said gear wheels are rotated.

In testimony whereof we have hereunto set our hands this 3d day of May, 1895.

CHARLES C. YEAMANS.
ELMER D. ABBOTT.

Witnesses:

R. J. MCCARTY,
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