

C. MENCHEN.
 COIN PAYING MACHINE.
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943,030.

Patented Dec. 14, 1909.

Fig: 1.

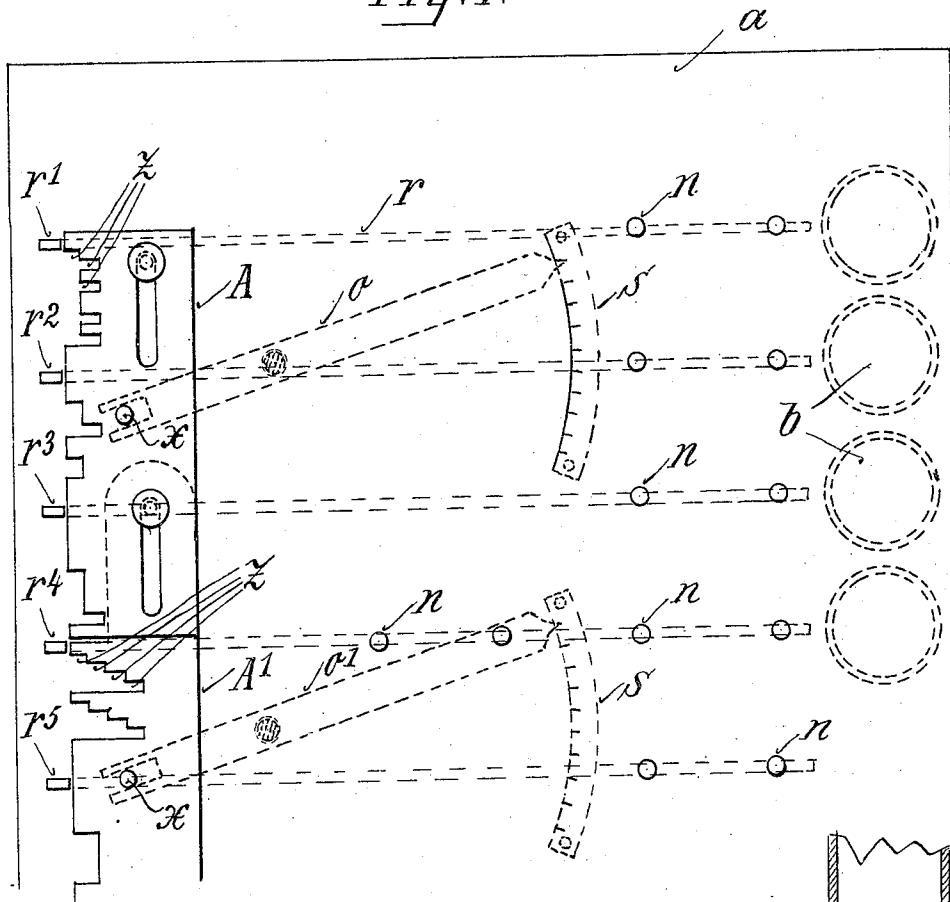
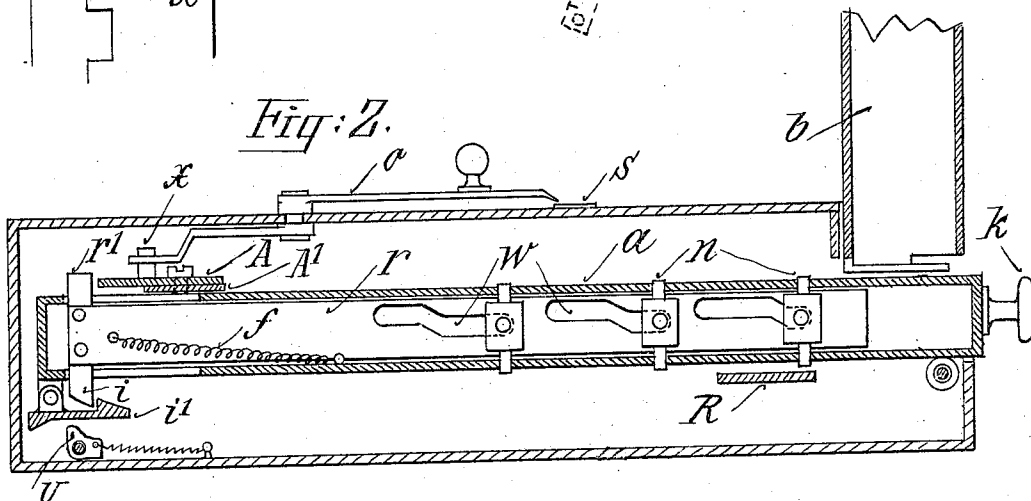


Fig: 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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COIN-PAYING MACHINE.

943,030.

Specification of Letters Patent. Patented Dec. 14, 1909.

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To all whom it may concern:

Be it known that I, CARL MENCHEN, engineer, Munich, Germany, Blumenstrasse 53, have invented certain new and useful Improvements in and Appertaining to Coin-Paying Machines, of which the following is a specification.

This invention relates to those coin-paying machines in which a slide provided with adjustable bolts issues from the machine and by means of said bolts pushes coins out of the coin-tubes, one after the other, in such a manner that said coins come to lie in a row on the slide or paying-out plate.

The present invention relates more particularly to an arrangement for adjusting any desired number of the aforesaid bolts of the paying-out slide, in order to attain the paying-out of a corresponding number of coins.

Reference being had to the accompanying drawing, Figure 1 shows the arrangement according to the present invention as seen from above, and Fig. 2 is a longitudinal section through the machine.

Similar characters of reference designate corresponding parts throughout the several views.

The paying-out slide (*a*) moves toward the right, passing below the coin-tubes (*b*). For each coin-tube, (and therefore for each denomination of coin), said slide (*a*) is provided with a number of bolts (*n*), situated in rows one behind the other, which bolts, however, generally lie below the surface of the paying-out slide.

In the interior of the slide (*a*) adjustable bars (*r*) are provided, one bar for each row of bolts, having partially slanting slots into which pins arranged on the bolts (*n*) protrude. The slanting portion of these slots (*w*) is differently situated in the case of each slot, so that when the bar (*r*) is pushed forward, the bolts (*n*) will be raised, not all together, but one after the other. According then to the distance that the bar (*r*) is pushed forward, one, two, or more bolts will be raised and a corresponding number of coins removed, one after the other, from the appertaining coin-tube. When the bar (*r*) is pushed back, the bolts (*n*) will be again lowered and returned to their normal position below the surface of the paying-out slide. In order now to easily attain this variable forward movement of the bar (*r*)

with the help of keys or levers, a plate (*A*) is arranged on the top of the slide (*a*), as shown in Fig. 1, against which plate (*A*) the bars (*r*), under the action of springs (*f*), are adapted to abut with their lugs (*r*¹, *r*² etc.). Thus the bars (*r*) continually tend to move forward but are held back by the plate (*A*). Said plate (*A*) has recesses (*z*), of varying depth. By pushing the plate (*A*) more or less forward a recess (*z*) of greater or less depth, as the case may be, can be brought opposite to the lugs (*r*¹ etc.), and the appertaining bar (*r*) will then move forward to a corresponding degree, whereby the corresponding number of bolts (*n*) will be raised.

The recesses (*z*) are so arranged that when the plate (*A*) is pushed forward, one, two, or more bars (*r*) can be released at the same time, so that one, two, or more denominations of coins can be paid out simultaneously. For instance, according to the arrangement shown in Fig. 1, the first recess of the plate (*A*) would allow the bar (*r*) to move one step forward, corresponding to the raising of one bolt and the paying out of one coin from the first coin-tube; the second recess would allow the bar (*r*) to move two steps forward; the third recess would allow the bar to move only one step, but at the same time the lug (*r*²) of the second bar, corresponding to a higher denomination of coin, would be released; again, the sixth recess would allow the third bar to move forward, this bar corresponding to the third coin-tube; and so on. It will now be obvious that such an arrangement makes it possible to pay out any desired sum by combining different denominations of coins. Advantageously a separate plate (*A*) will be provided for each kind of metal of which the coins are made, (copper, nickel, silver, gold), each plate (*A*) being separately adjustable. The adjustment of these plates (*A*, *A'* etc.) may be effected, for instance, by means of oscillating or slide-levers (*o*, *o'* etc.) engaging with pins (*x*) of the plates (*A*, *A'* etc.), and moving over graduated scales (*S*.) When the slide (*a*) is moved forward, these pins (*x*) can slide out of the levers and later again into them.

Each bar *r* is provided with a stop *i*, engaging with a beveled lug or rail *i'* common to all the bars, said bars being thus held back against the action of the springs *f*, so

that it is possible to adjust the plates A, A' etc. without hindrance. When the plate *a* is drawn out, as by pulling by hand at the handle *h*, the beveled lug or rail *i'*, being 5 pivotally attached to the plate *a*, is pushed down against the action of a spring or the like. This downward movement is attained, for instance, by a lug or suitable projection U abutting against said beveled rail *i'*. This 10 causes the bars *r* to be released, each bar moving forward a distance corresponding to the adjustment of the plates A, A', etc., as explained above, and the desired number of bolts *n* are thereby raised through the medium of the slanting slots *w*. After the 15 beveled lug or rail *i'* has passed over the projection U it again assumes its initial position through the action of a spring or the like as already mentioned, and is therefore 20 prepared to again engage and retain the stop *i* when the bars *r* abut against the fixed bar R and are thereby returned to their initial positions.

The lug or projection U will preferably 25 be pivoted and spring held, as shown in the drawing, so that, when the plate *a* is returned, the lower projection of the rail *i'* can pass over it without hindrance.

After the desired number of bolts *n* have 30 been raised in the above-described manner, and it is desired to remove coins out of the coin-tubes, *b*, it is only necessary to draw the plate *a* out below the coin-tubes (as shown in the drawing the plate would be 35 drawn toward the right). Each separate protruding bolt *n* pushes a coin out of a slot at the bottom of the coin-tube, so that, if several bolts of a single row appertaining to one and the same coin-tube are raised, 40 each bolt will push a coin out of this tube, and these several coins will come to be one behind the other on the plate *a* when drawn out.

Since all the rows of bolts *n* are arranged 45 on one and the same plate *a*, it is obvious that a coin or coins will be removed simultaneously from each coin-tube, said coin-tubes being arranged one beside the other, as shown in Fig. 1, provided that a bolt or 50 bolts of the row appertaining to the coin-tube in question has been raised. Therefore

the removal of coins from the several coin-tubes is simultaneous and the coins are paid 55 down on the plate in rows, one row for each denomination of coin; the amount can therefore be easily checked and then swept off the plate into the hand or a suitable receptacle.

The drawing-out of the plate *a* can be most conveniently performed by hand, by 60 pulling the handle or knob *h*, but may obviously, if preferred, be operated by a crank or similar means (not shown). After removing the coins on the slide *a*, the latter can be again pushed back and the machine adjusted afresh for another payment. 65

What I claim as my invention and desire to secure by Letters Patent, is:

1. In a coin-paying machine, the combination of coin-tubes (*b*), a slide (*a*) arranged 70 below said coin-tubes, having bolts (*n*) adjustable one after the other for the purpose of removing coins from the coin-tubes, means (*r*) for raising and returning said bolts (*n*), and stops (*z*) for the means (*r*), which stops 75 can be adjusted at different distances from said means (*r*), in order to permit these means (*r*) to move more or less forward for the adjustment of the bolts (*n*).

2. In a coin-paying machine, the combination of coin-tubes (*b*), a slide (*a*) arranged 80 below said coin-tubes, having bolts (*n*) adjustable one after the other for the purpose of removing coins from the coin-tubes, sliding bars (*r*) with slanting slots (*w*), pins 85 on the bolts (*n*) sliding in said slots, springs (*f*) for moving the sliding bars (*r*), and differently distanced stops (*z*) for the sliding bars (*r*), said stops being situated on 90 plates (A) common to several bars (*r*), said plates being so adjustable that different stops can be one after the other brought opposite the slides (*r*), in order to permit the latter to move forward to a greater or lesser degree.

In witness whereof I have signed this 95 specification in the presence of two witnesses.

CARL MENCHEN.

Witnesses:

LOUIS F. MUELLER,
MATHILDE K. HELD.