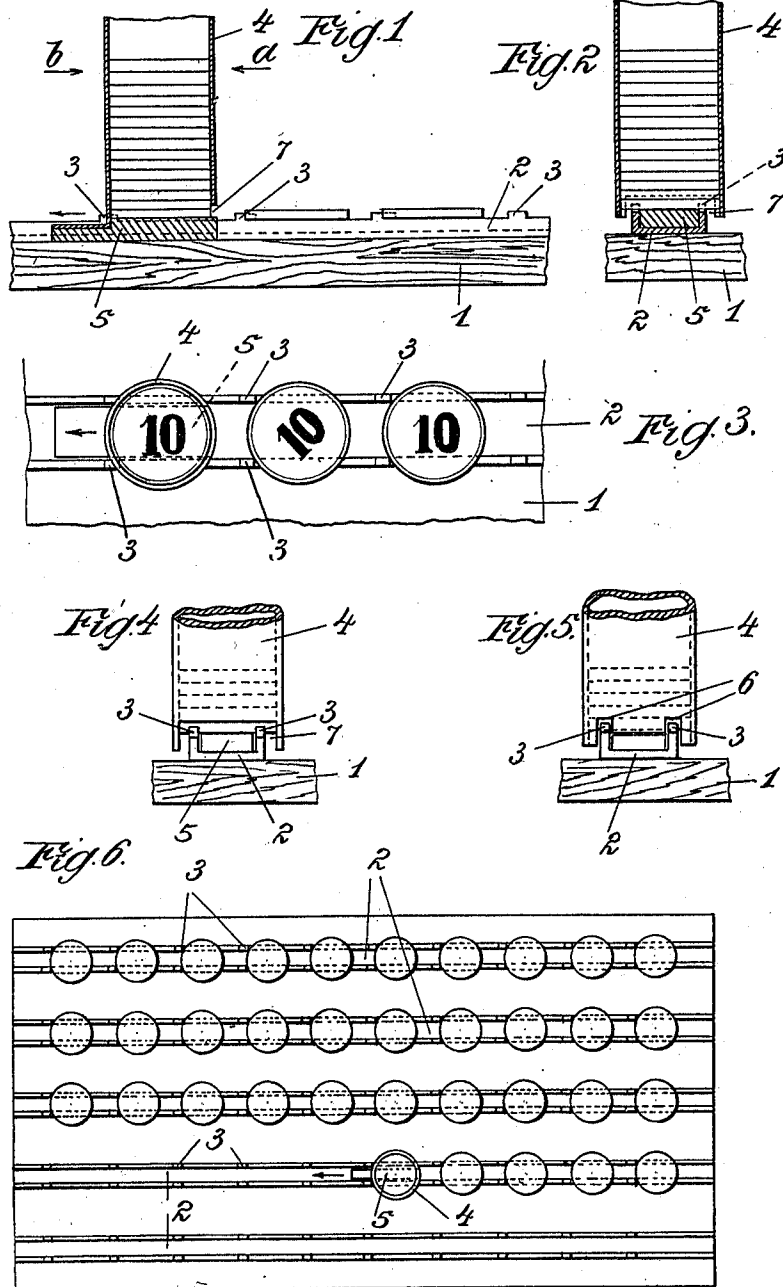


B. HOFFMANN.
 DEVICE FOR USE IN COUNTING MONEY, TOKENS, OR THE LIKE.
 APPLICATION FILED MAY 3, 1910.

992,963.

Patented May 23, 1911.



Witnesses:
 G. V. Rasmussen
 John A. Schmitt

Inventor
 Benno Hoffmann
 By
 Briesen Knautz
 Attorneys

UNITED STATES PATENT OFFICE.

BENNO HOFFMANN, OF FRANKFORT-ON-THE-MAIN, GERMANY.

DEVICE FOR USE IN COUNTING MONEY, TOKENS, OR THE LIKE.

992,963.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed May 3, 1910. Serial No. 559,119.

To all whom it may concern:

Be it known that I, BENNO HOFFMANN, merchant, a subject of the German Emperor, and resident of Frankfort-on-the-Main, Germany, with the post-office address Elbestrasse No. 52, have invented new and useful Improvements in Devices for Use in Counting Money, Tokens, or the Like, of which the following is a specification.

This invention relates to a device or apparatus for use in counting money, tokens or the like, consisting of a receptacle for the coins or tokens to be counted in the form of a tube closed at the bottom to prevent the coins, etc., from falling out, but so constructed as to permit of the coins, etc., being individually withdrawn or ejected from the receptacle when the latter is moved along a board having studs or projections on its surface.

The device is illustrated in the accompanying drawings wherein—

Figures 1 and 2 are two axial sections through the tube and viewed in directions at right angles to one another. Fig. 3 is a plan of Fig. 1. Fig. 4 is an elevation of the lower portion of a tube looking in the direction indicated by the arrow *a*, Fig. 1, while Fig. 5 is a similar view looking in the direction indicated by the arrow *b*. Fig. 6 is a plan of the entire counting device.

The counting or receiving board 1 is provided with a number of parallel grooves 2 from the edges of which project a number of pairs of studs 3 arranged at definite intervals. The tube 4 in which the coins are received is closed at the lower end by a plate 5 whose width is the same as that of the grooves 2. One side of the tube is provided with a pair of recesses 6, while the other side has a gap or slot 7 extending about half way around the circumference of the tube which permits the lowermost coin to pass out of the tube.

In using the device, the tube, filled with the coins or tokens, is moved along in one of the grooves 2 in the direction indicated by the arrow *a*, Fig. 1, the bottom 5 sliding within the groove and serving as a guide. The recesses 6 in the tube permit the tube to pass as each pair of studs 3 on the board are reached, but the lowermost coin comes in contact and is held by said studs so that it is forced out through the slot 7 as the tube passes onward. As soon as the tube has passed over a pair of the projections the coin

that is now in the lowermost position falls on to the bottom and is engaged and ejected by the next pair of projections and so on. In this way a number of coins corresponding to the number of pairs of projections are left lying upon each groove of the board.

Care must be taken to see that the difference between the height of the projections above the bottom of the groove 2 and the thickness of the bottom 5 is not greater than the thickness of the coins to be counted, since otherwise the coin next above the lowest one would also be liable to be engaged and the forward movement of the tube arrested in consequence of the coin above the one at the bottom of the pile not being able to pass out through the slot 7.

The grooves are suited for all kinds of coins, provided that they are made narrower than the smallest coins to be counted. The bottom of the tube employed must, however, vary in accordance with the thickness of the coins, since the maximum already mentioned must not be exceeded. It is advisable to arrange twelve pairs of projections on each groove, as shown in Fig. 6, so that when, say, twelve penny-pieces are being counted, each groove will contain coins to the value of one shilling. The number of the grooves may be varied as desired, the drawing showing five by way of example.

By means of this apparatus it is no longer necessary to count the individual coins, as a glance at the counting board is sufficient to determine the sum that has been placed thereon by means of the tube, liability of error being practically precluded since the absence of a coin in the row would strike the eye at once.

It is obvious that the use of the device is not confined to any particular class of coin and that tokens or the like can likewise be counted by means of it.

Now what I claim and desire to secure by Letters Patent is the following:

1. In a device for counting coins, tokens or the like, a receiving board, a carrier for the coins, tokens or the like having an outlet and movable relatively to said board, means on said carrier for maintaining the coins, tokens or the like therein and means fixed on said board for extracting said coins, tokens or the like from said carrier through the outlet thereof as the carrier is moved.

2. In a device for counting coins, tokens or the like, a receiving board, a carrier for

the coins, tokens or the like having a bottom and provided with a recess adjacent to said bottom, said carrier being movable relatively to said board, and means fixed on said board for extracting said coins, tokens or the like from said carrier through said recess.

3. In a device for counting coins, tokens or the like, a receiving board, a carrier for the coins, tokens or the like having a bottom and provided with a recess adjacent to said bottom, said carrier being movable relatively to said board, and spaced projections on said board for forcing a coin, token or the like from said carrier through the recess.

4. In a device for counting coins, tokens or the like, a receiving board provided with a groove, a slide movable in said groove and a carrier for the coins, tokens or the like secured to said slide and adapted to successively deposit said coins, tokens or the like on said board.

5. In a device for counting coins, tokens or the like, a receiving board provided with a groove, a slide movable in said groove, a carrier for the coins, tokens or the like secured to said slide, and projections on opposite walls of said groove for forcing a coin, token or the like from said carrier.

6. In a device for counting coins, tokens

or the like, a receiving board having a groove, a slide movable therein, a carrier for the coins, tokens or the like secured to said slide, and projections on opposite walls of said groove for forming a coin, token or the like from said carrier, said projections being each of a height less than the thickness of a coin, token or the like.

7. In a device for counting coins, tokens or the like, a receiving board, parallel rows of spaced projections on said board and a carrier for said coins, tokens or the like movable relatively to said board over said projections so as to deposit said coins, tokens or the like singly and in adjacent parallel rows between said projections.

8. In a device for counting coins, tokens or the like, a receiving board provided with a groove, a slide movable in said groove, a carrier for the coins, tokens or the like secured to said slide and means fixed on said board for extracting said coins, tokens or the like from said carrier.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this 20th day of April 1910.

BENNO HOFFMANN.

Witnesses:

JOHANN HOFMANN,
JEAN GRUND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."