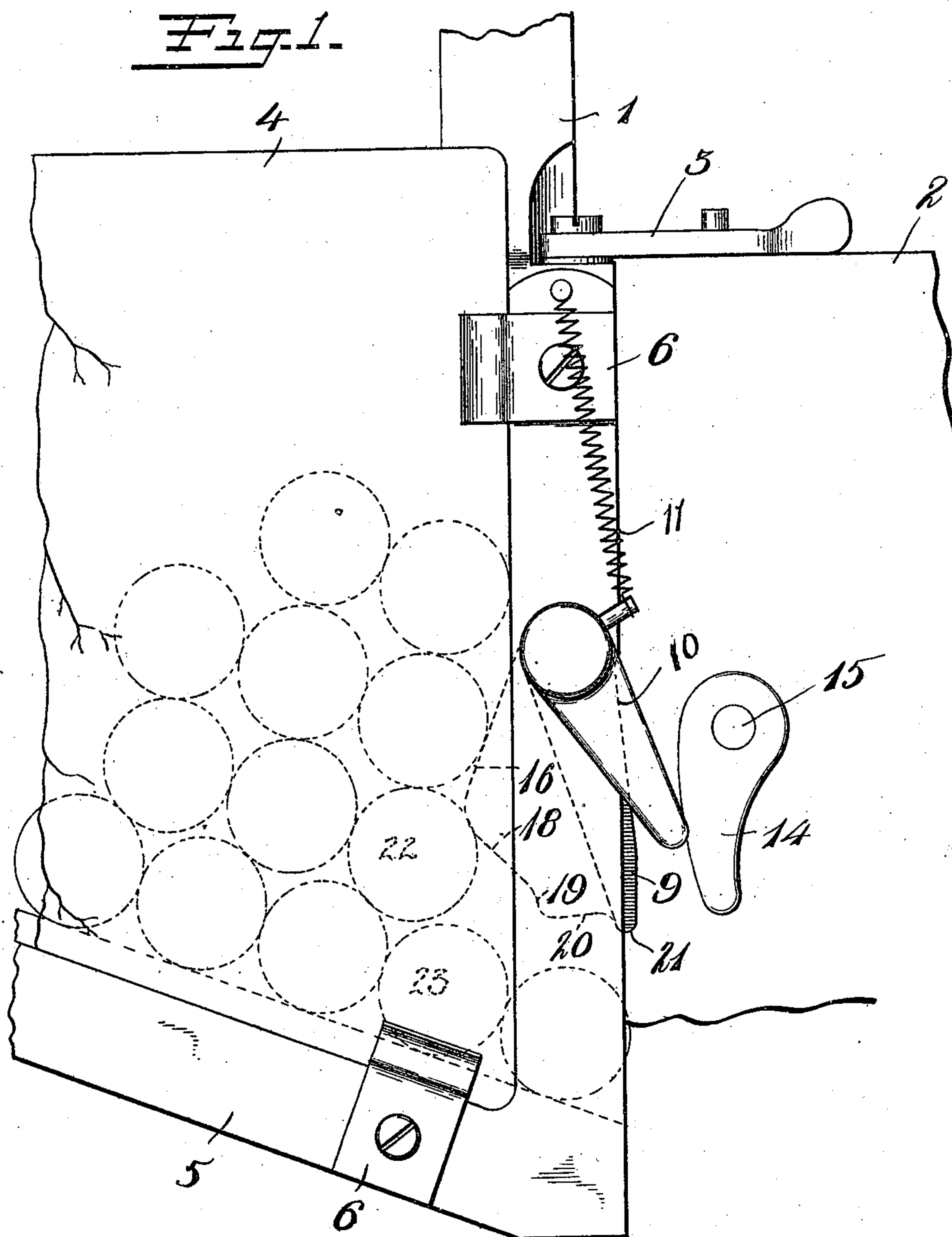


G. S. BATDORF.
MECHANICAL AGITATOR.
APPLICATION FILED DEC. 11, 1909.

975,202.

Patented Nov. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses:
Charles A. Reed
Fred M. Hammerfelser

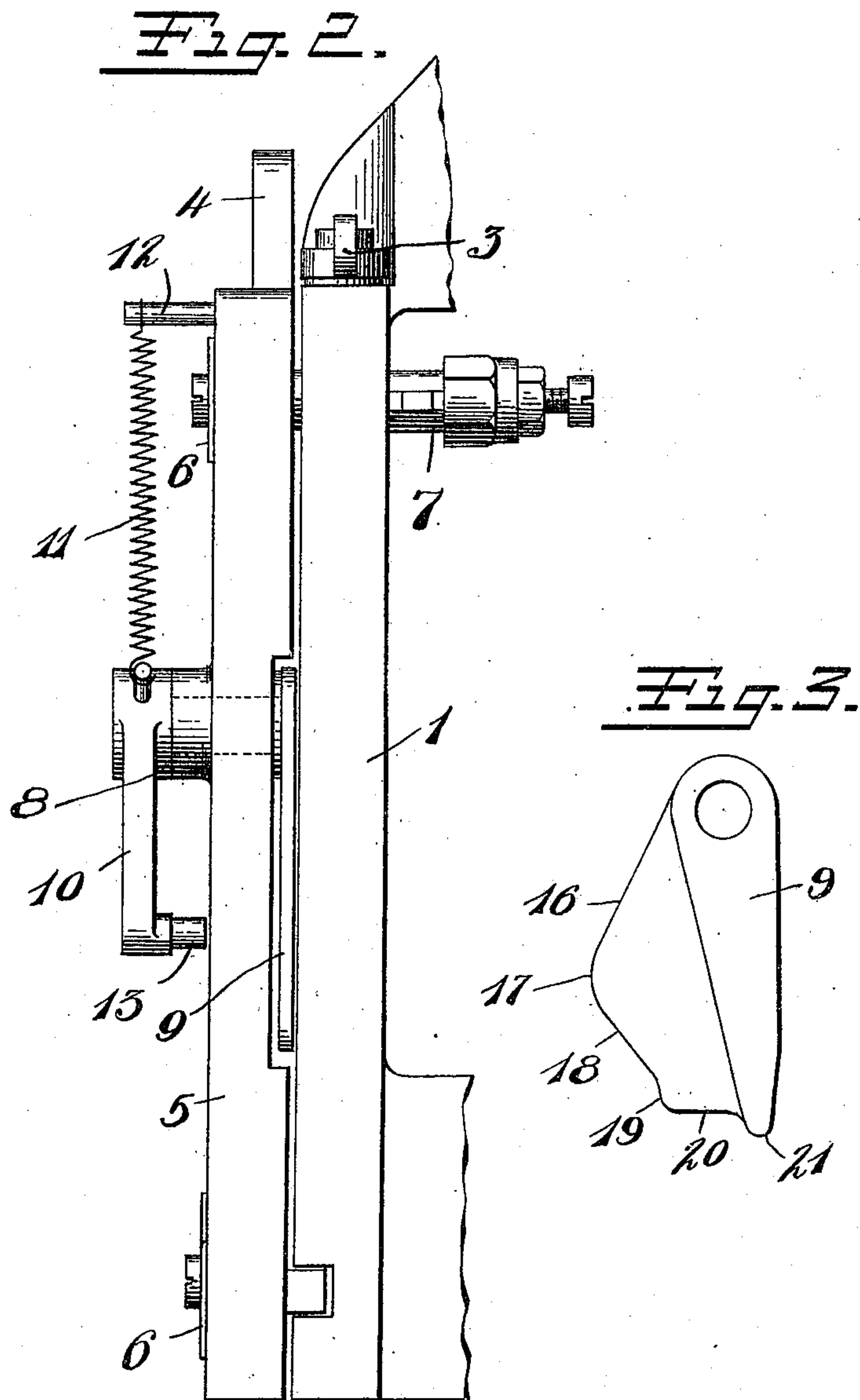
Inventor
C. S. BATDORF
By *Boyle's Attorneys*
Paulus Carmichael

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Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES S. BATDORF, OF BROOKLYN, NEW YORK, ASSIGNOR TO AUTOMATIC COIN WRAPPING MACHINE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MECHANICAL AGITATOR.

975,202.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed December 11, 1909. Serial No. 532,543.

To all whom it may concern:

Be it known that I, CHARLES S. BATDORF, a citizen of the United States, residing at Brooklyn, county of Kings, State of New York, have invented certain new and useful Improvements in Mechanical Agitators, of which the following is a full, clear, and exact description.

My invention relates to coin handling machines of the type illustrated in my co-pending application, Serial No. 331,850, filed August 24, 1906, and is particularly concerned with improvements in the coin agitator by which that part of the feed chute connected with the coin tray is automatically relieved of the "arching" or banking which interferes with the proper feed of the coin to the machine.

The object of the invention is to provide an agitator so shaped that it will invariably break up any arch formation which may be assumed by the coins and maintain the path to the feed chute of the machine clear for the orderly and successive feed of the coin.

With these objects in view the invention consists in the construction and arrangement of parts, a preferred embodiment of which is illustrated in the accompanying drawings, in which,

Figure 1 is a front view of so much of a coin tray and its feed chute as is necessary to illustrate the invention and showing the invention in conjunction therewith; Fig. 2 is a side elevation of the parts shown in Fig. 1 looking from the right, and Fig. 3 is a view of the agitator detached.

In the embodiment of my invention herein selected for illustration, 1 indicates a fragmentary part of the frame of the coin tray and feed chute. This frame is provided with suitable means, not shown, for mounting the same upon the standard 2 of the machine, to which the frame is locked in operative position by a suitable latch 3.

4 indicates the front plate of the feed chute and is preferably of plate glass, in order that the condition and position of the coins within the chute may be readily observed. This front plate is mounted in a frame 5, to which it is secured by means of brackets 6, and the frame as a whole is provided with adjusting means, as indicated at 7, by which the width of the feed chute may

be varied, to suit the coins of different denomination. Pivoted in the vertical bar of the frame 5 is a short rock shaft 8, to which is fixed a coin agitator 9. The agitator, as will be seen from an inspection of the figures, is suspended just above the track of the coin and projects well into the feed chute leading from the coin tray. On the outer end of the rock shaft 8 is a rocker arm 10, to which is secured a spring 11, extending to a pin 12, fixed on the frame 5, by which the agitator is normally retracted. The rock arm 10 carries a stud 13 lying in the path of an actuating arm 14 fixed to a stud 15, which may be connected with any suitable form of actuating mechanism not shown. During the operation of the machine with which this device is used, the actuating arm 14 vibrates against the stud 13 of the rocker arm 10, thus causing a corresponding vibration or swinging of the agitator.

The agitator proper comprises a comparatively thin plate of metal having an inclined upper portion 16 which extends into and toward the opposite end of the coin chute and terminates at an angle 17. From the angle 17 the edge of the agitator extends on a line 18 in a direction opposite the part 16 and terminates in a vertical portion 19 from which the agitator extends in a substantially horizontal line 20 toward the rear of the plate and finally terminates in a depending finger 21.

The inclined portion 16 of the agitator serves to toss back the uppermost coins of the stack or pile which may have accumulated in the chute, thereby freeing the next lower tier of coins, as, for example, those designated by 22, Fig. 1, whereby these coins may then be readily forced back by the portion 18 of the edge of the agitator to permit the unimpeded passage of the lower tier of coins, as for example, 23, to the feed chute of the machine. This backward movement of the coins 22 is further accomplished by the substantially vertical shoulder 19 of the edge of the agitator. Finally the coins of the last tier 23 are kept from jamming in the passage by the depending finger 21, which serves to keep this tier in constant motion. It will be seen, however, that the arc of swing of the agitator keeps the latter

free from the coin which has reached the extreme right hand or lower end of the coin chute as viewed in Fig. 1.

By the above described means all tendency of the coins to bank up or "arch" within the feed chute is effectually prevented, inasmuch as all portions of the stacked coins are agitated successively and in sequence from the uppermost coins to the lowermost coins in the chute. Thus the pressure upon the successive tiers of coins from the top to the bottom is relieved before each of said tiers is effected by the agitator, whereby the weight of the entire stack does not come upon the agitator at any one time.

What I claim is:

1. In a device of the character described, the combination with a feed chute, of an article agitator movable therein, said agitator having portions to successively agitate different parts of a group of articles in said feed chute.

2. In a device of the character described, the combination with a feed chute, of an agitator movably mounted therein, said agitator having parts to agitate different portions of a mass of articles in said chute successively from the upper to the lower portion of said mass.

3. In a device of the character described, the combination with a feed chute, of a swinging agitator mounted therein, means to swing said agitator in the plane of said chute, said agitator having a part arranged to contact with the upper portion of a mass of articles in said chute, a part to contact with the portion of said mass below said first portion and a part to contact with that portion of said mass located in the line of

feed of said chute, whereby said portions will be successively agitated to facilitate the feeding of said articles.

4. In a device of the character described, the combination with a feed chute, of an oscillating agitator, means to oscillate said agitator in the plane of said chute, said agitator comprising a blade having an edge comprising an inclined part arranged to contact with an upper portion of a mass of articles in said chute, an oppositely inclined part arranged to contact with the next lower portion of said mass of articles and a depending part arranged to contact with that portion of said mass of articles located in the line of feed to facilitate the feeding operation.

5. In a device of the character described, the combination with a feed chute, comprising an enlarged article receiving portion and a comparatively contracted feeding extension, of an oscillating agitator mounted at the junction of said enlarged portion and said extension, said agitator comprising a blade having an operating edge consisting of an inclined part arranged to operate upon the upper portion of a mass of articles within said enlarged portion and an oppositely inclined part arranged to thereafter operate upon a portion of said mass below said first portion and a depending part adapted thereafter to operate upon that portion of said articles located in the line of feed to said extension, whereby portions of said mass of coins may be successively agitated to facilitate the feeding operation.

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Witnesses:

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