No. 732,746, PATENTED JULY 7, 1903.

O. JAEGER.

COIN DETECTOR CHUTE.

APPLICATION FILED JUNE 23, 1902.

NO MODEL.

Fig. 1

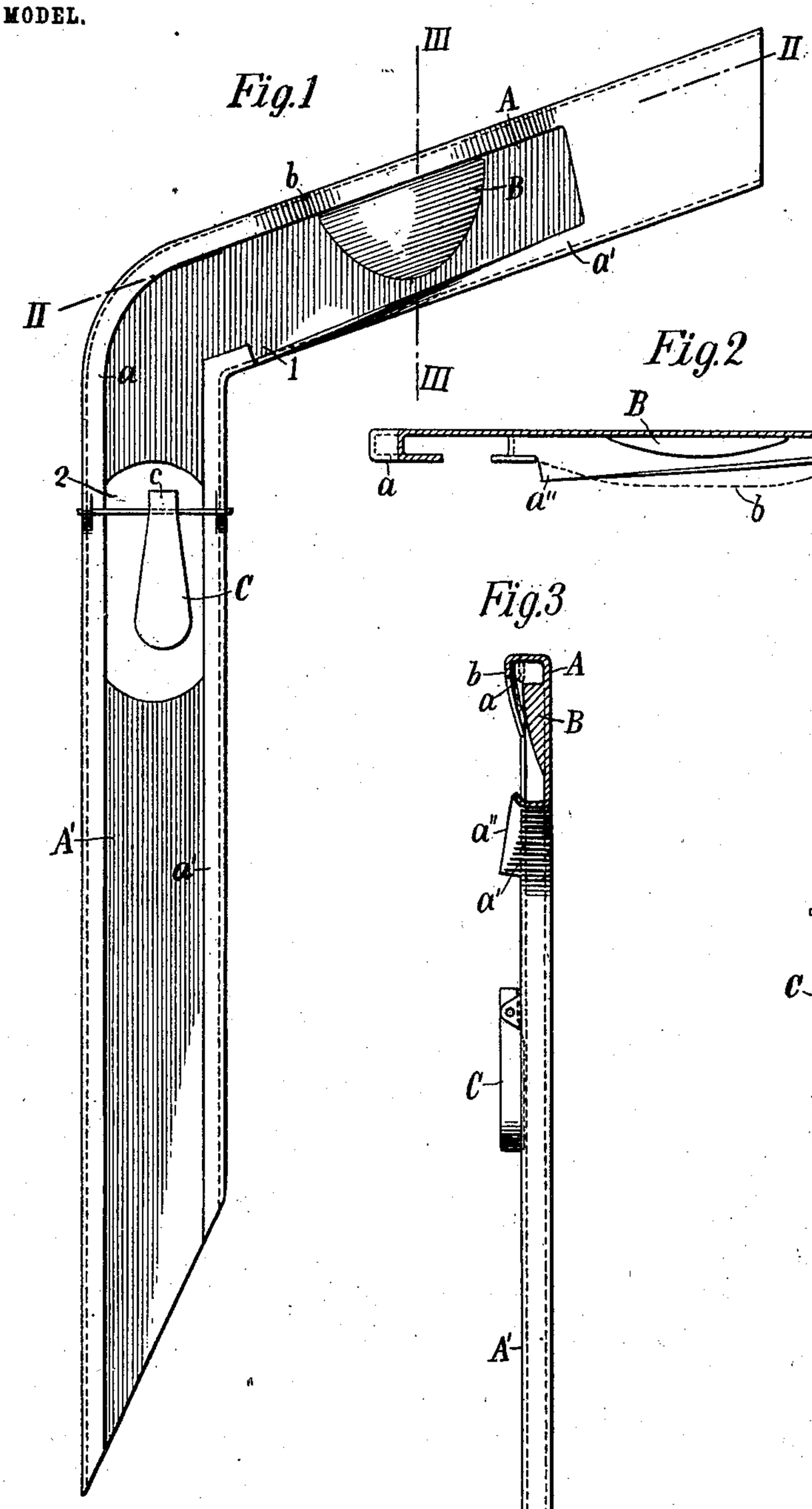
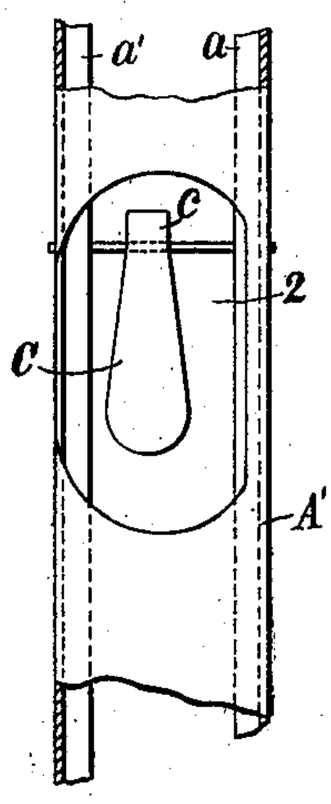


Fig. 2

Fig. 3

Fig. 4



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No. 732,746. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

OTTO JAEGER, OF PHILADELPHIA, PENNSYLVANIA.

COIN-DETECTOR CHUTE.

SPECIFICATION forming part of Letters Patent No. 732,746, dated July 7, 1903.

Application filed June 23, 1902. Serial No. 112,919. (No model.)

To all whom it may concern:

Be it known that I, OTTO JAEGER, of Philadelphia, Pennsylvania, have invented new and useful Improvements in Coin-Detector Chutes, which are fully set forth in the following specification.

This invention relates to that class of apparatus intended to be operated by a nickel, but which unscrupulous persons can sometimes operate otherwise than by the proper coin.

The object of the present invention is to insure that the apparatus cannot be operated by a bent wire, a coin of less value than the proper one, or otherwise "beat" by thoughtless or unscrupulous persons.

The invention consists in the addition of certain improvements to be pointed out.

My invention can best be understood by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a coin-chute containing my improvements. Fig. 2 is a section through lines II II of Fig. 1. Fig. 3 is a front view taken through lines III III of Fig. 1, and Fig. 4 is a side elevation viewed from the rear of Fig. 1.

The chute is comprised of the approximately horizontal member A and the practically vertical member A′. It is closed on one side and has on the other the two inturned flanges *a a′*, which allow a nickel to pass along throughout the length of the chute, while securely preventing its escape to either side. All this is as usual in coin-chutes. At 1 the lower retaining-flange *a′* is cut away or preferably bent outward, as at *a″*, (see Fig. 2,) so that the distance between the bottom edge of upper flange *a* and the face of portion *a″* exceeds the diameter of a penny and is very little less than that of the nickel. Such cut-away portion, in connection with a flat spring opposite, is a common device for ejecting a too-small coin. The objections to this construction are twofold: The spring action is not uniform. In one apparatus it may be too strong and prevent the passage even of the proper coin, while in another chute the spring may be too weak and will not invariably eject the smaller penny, particularly if the latter be vigorously "thumped" on insertion. In the second place when a spring is employed as above by tilting the machine so that the spring will lie on the lower side of the chute the weight of the penny sometimes serves to depress the spring out of the way to permit the penny to roll past it and down the chute, or a wire may be forced past the spring and on down the chute. In place of a spring, then, I employ a solid block or cam B, swelling gently from the surface of the side wall of the chute fore and aft, as seen in Fig. 2, and with its outer profile likewise inclining gently upward from the bottom to present an inclined cam-surface toward and extending as far as the normal position of flange *a*, as seen in Fig. 3. This portion of flange *a*, however, is carried off to one side at *b*. (See dotted line in Fig. 2.) This construction produces the uniform action as well as the positive action, both of which are lacking when a spring is employed. The conformation of cam B throws the top of the coin to one side, (careening it to the left, as in Fig. 3,) so that if the coin be too small its upper edge will disengage flange *a*. Moreover, the too-small coin (being thus tilted) tends to run off on a curve (to the left) instead of straight ahead, and thus it is certain to pass out at enlargement 1 and fail to enter member A′ of the chute. A bent wire will not pass around block B and the lower member A′ of the chute. Thumping the penny merely ejects it more forcibly out at enlargement 1, and turning the apparatus over on its side scarcely ever permits the penny to roll past cam B and continue into member A′. If, however, by tilting the machine or otherwise a penny has run past block B, then the second feature of my invention comes into play. In the vertical member A′ of the chute a part of the side wall is cut away at 2. Opposite this opening 2, and preferably a trifle nearer one side of the opening than the other—that is, nearer flange *a′*, for instance, than to flange *a*—swings a weight or deflector C, pivoted, as shown, with a slight head *c* above its axis. When by tilting the machine over on its side or otherwise a penny has been juggled past block B, the same tilting action will swing deflector C into the path through chute member A′ and will throw the penny out of the chute. By placing the weight C nearer one edge of the chute the coin is given a slant or

twist, so as to insure its ejection from even a comparatively small opening 2. Should the machine be tilted to the other side, so as to swing weight C out of the way, then the head *c* is interposed. These two features of my invention may be used separately; but I prefer to employ them conjointly in one and the same chute. Changes in details of construction and arrangement may likewise be made without departing from the spirit of my invention.

Having thus described my invention, I claim—

1. A coin-detector chute comprising a substantially horizontal portion and a substantially vertical portion, said chute having in its approximately horizontal member a cut-away portion with a cam-surface opposite thereto, and having in its vertical member a second cut-away portion with a weight swinging opposite thereto.

2. A coin-detector chute comprising a substantially horizontal portion and a substantially vertical portion, said chute having in its approximately horizontal member a cut-away portion with a solid deflector opposite thereto which presents a cam-surface inclined from the vertical, and in the vertical member of said chute a second cut-away portion with a swinging deflector opposite thereto.

3. A coin-detector chute comprising a substantially horizontal portion and a substantially vertical portion, said chute having in its approximately horizontal member a cut-away portion with a cam-surface opposite thereto, and having in its vertical member a second cut-away portion with a swinging deflector opposite thereto and nearer to one of the edges of said chute.

4. A coin-detector chute comprising a substantially horizontal portion and a substantially vertical portion, said chute having in its approximately horizontal member a cut-away portion with a solid deflector opposite thereto which presents a cam-surface inclined from the vertical, and in the vertical member of said chute a second cut-away portion with a swinging deflector opposite thereto and nearer to one of the edges of said chute.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

OTTO JAEGER.

Witnesses:
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