No. 730,624. PATENTED JUNE 9, 1903.

R. P. ELLIOTT.

AUTOMATIC VENDING MACHINE.

APPLICATION FILED MAY 12, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

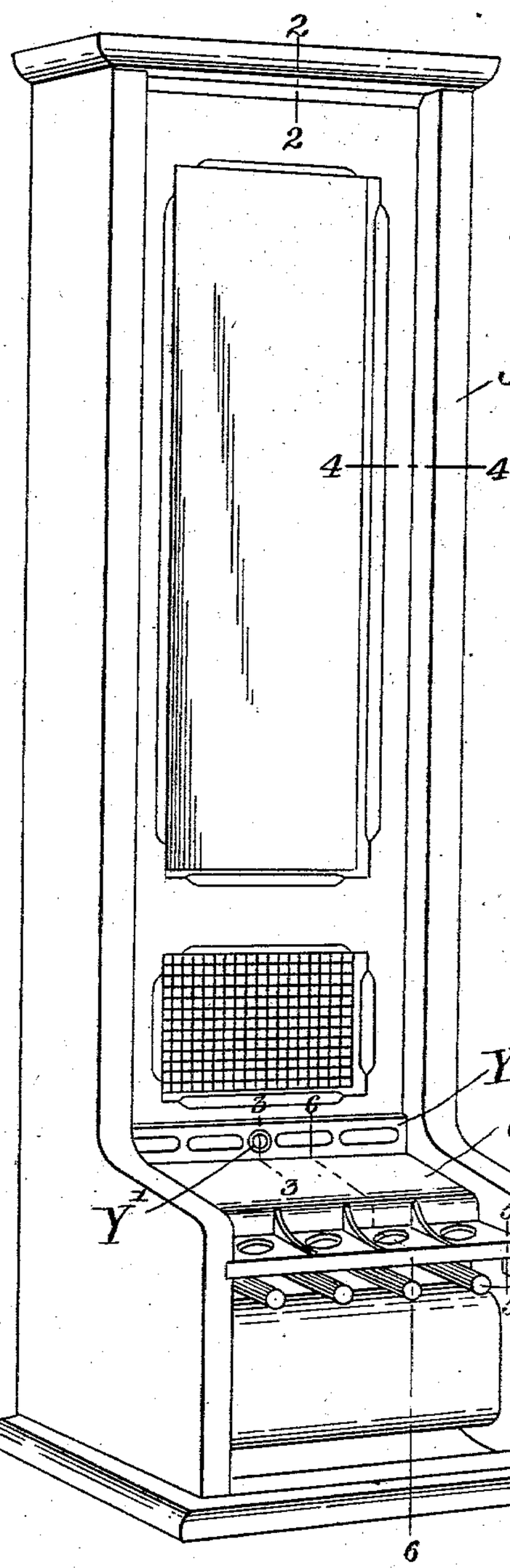


Fig. 2.

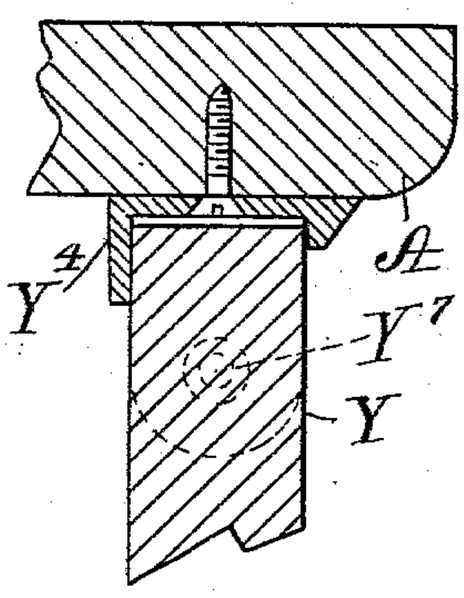


Fig. 3.

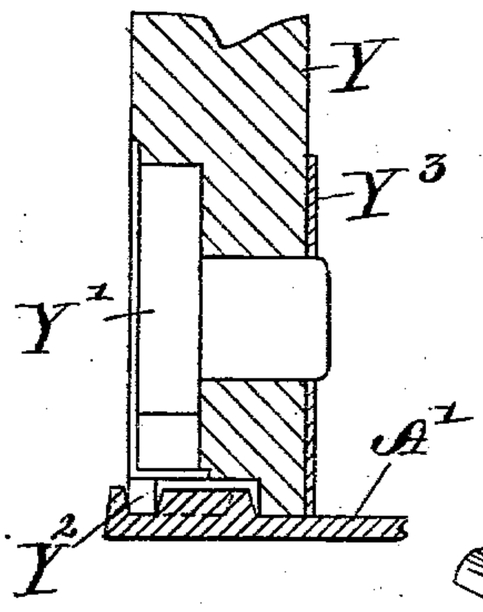


Fig. 4.

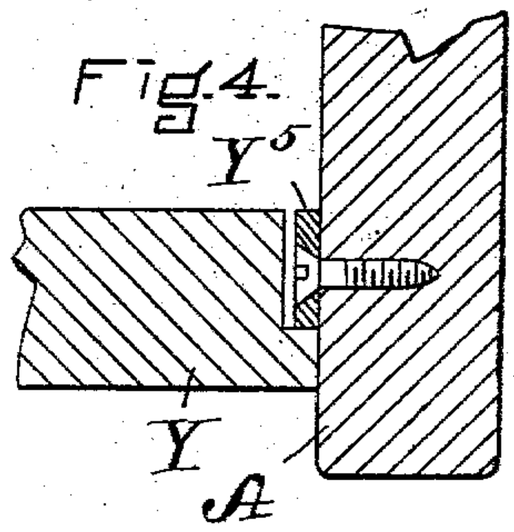
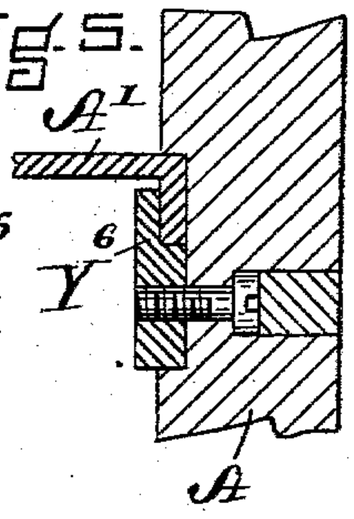


Fig. 5.



WITNESSES.

H. M. Kelsey.

R. C. Powell

INVENTOR.

Richard P. Elliott

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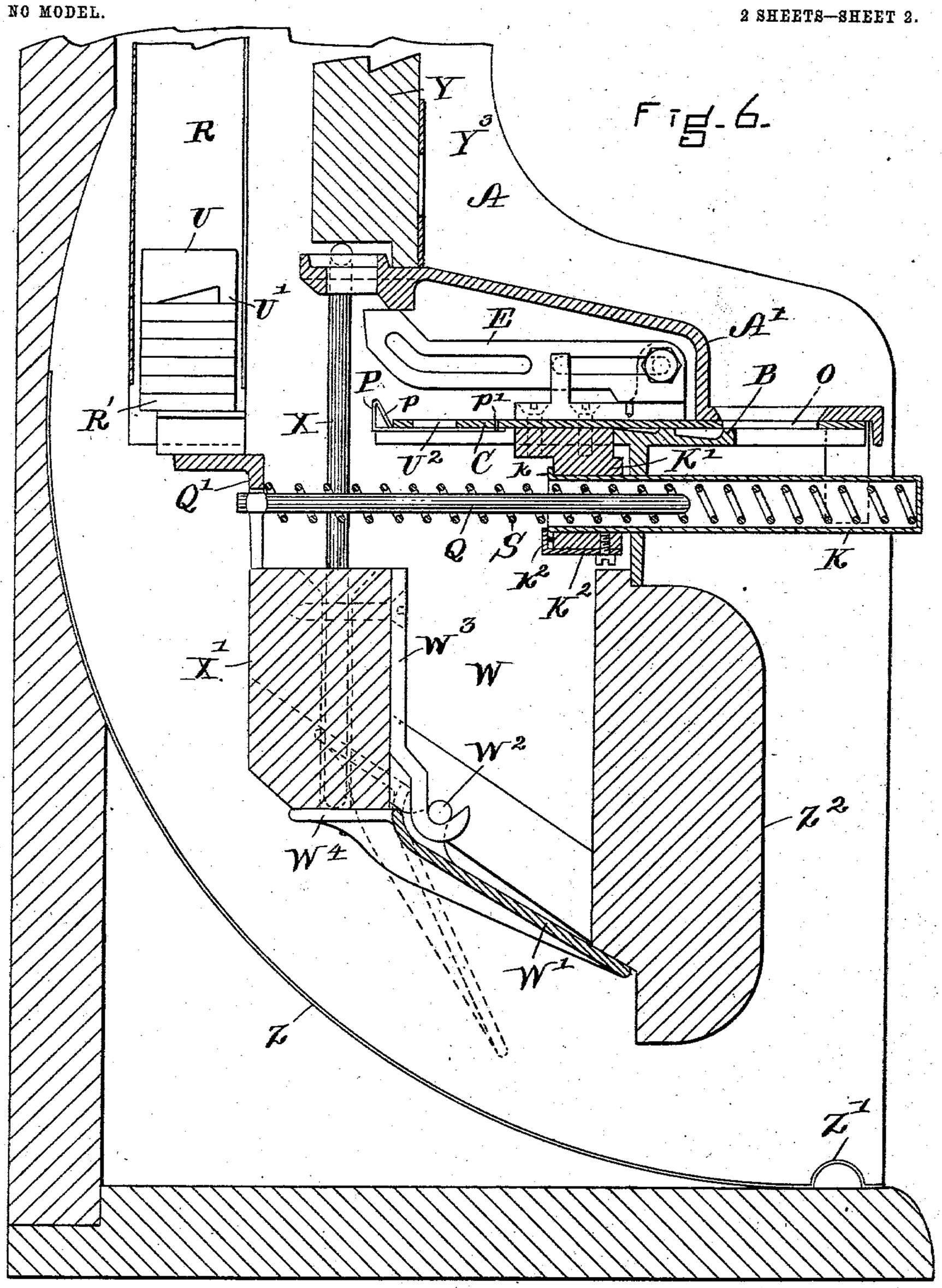
AUTOMATIC VENDING MACHINE.

APPLICATION FILED MAY 12, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 6.



WITNESSES.

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No. 730,624. Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

RICHARD P. ELLIOTT, OF BOSTON, MASSACHUSETTS.

AUTOMATIC VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 730,624, dated June 9, 1903.

Application filed May 12, 1902. Serial No. 106,969. (No model.)

To all whom it may concern:

Be it known that I, RICHARD P. ELLIOTT, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Automatic Vending-Machines, of which the following is a specification.

My invention relates to improvements in a coin-controlled vending-machine in which a slide operates to eject articles to be sold from a suitable magazine, and, furthermore, of a peculiar means of locking the coin-receptacle when the machine is in operative condition.

A further object is to so construct the machine as to resist unauthorized attempts to break in and tamper with the contents thereof.

Other objects will appear in the specification and claims.

In the drawings like letters of reference refer to like parts.

Figure 1 is an elevation of the vending-machine in perspective embodying my improvements. Fig. 2 is an enlarged vertical section of the casing on line 2 2, Fig. 1. Fig. 3 is an enlarged sectional view on the line 3 3, Fig. 1. Fig. 4 is an enlarged sectional view on line 4 4, Fig. 1. Fig. 5 is an enlarged sectional view on the line 5 5, Fig. 1; and Fig. 6 is a transverse section on the line 6 6, Fig. 1.

In the drawings, A represents the body of the casing of the vending-machine.

A′ is the top plate, covering the coin-controlled mechanism.

C, Fig. 6, represents a sectional view of the slide, and B is a bottom plate which serves as a guide for the slide. Attached to the slide C is a block K′, in which is mounted a plunger K. Within the plunger K projects a stem Q, upon which is mounted the spiral spring S, which spring abuts against the interior of the outer end of plunger K and serves to return said plunger to normal position after each operation thereof. Upon the lower side of the block K′ is fastened a plate of spring metal having an upward projection k^2, which lies normally to the rear of a flange k on the rear end of the plunger K. The function of this construction will be stated hereinafter.

A coin-receptacle W is constructed below the slide, into which coin may be received at each operation of the machine. Said receptacle is provided with a swinging door W′, hingedly mounted at W^2 upon the plate W^3, which is secured to a wall X′ of the receptacle. Swinging door W′ also has a rear projection W^4, upon which rests one end of the stem X, which is slidably mounted in a vertical aperture in the wall X′. The stem X has a bearing in and projects above the rear edge of the cover-plate A′. The front panel Y of the vending-machine case when locked in its normal position is so positioned relative to the stem X as to hold the same depressed, as shown in Fig. 6, in which position the stem X contacts with the projection W^4 and holds the swinging door W′ in a closed position. A magazine R is provided at the rear of the casing to contain the articles to be sold. The free weight U normally rests upon the pile of articles in the magazine. This weight is provided with a projection U′, which coöperates with an aperture U^2 on the slide C to hold the latter in locked position after the last-vended article has been discharged from the magazine. The slide C is provided with a spring-metal tongue P, fastened thereto by means of a rivet P′. The spring-tongue at its rear end has a bevel surface p, which is presented to the lowest one of the pile of articles in the magazine after an article has been ejected, whereby when the spring S retracts the slide C the spring-tongue P is depressed and slides easily forward beneath the pile of articles to its operative position to eject the next article of the pile.

The front panel Y is provided at its lower end with a lock Y′, which secures said panel Y in its normal position by means of a bolt Y^2.

Y^3 is a metal plate attached to the lower edge of the movable panel Y and serves to prevent the cutting or boring of the lower portion of said panel Y to get at and detach the lock.

Y^4 is a grooved metal strip secured to the top of the casing A, in which is inserted the upper portion of the movable panel Y. This strip Y^4 also has lugs Y^7 at each end, which are secured to the sides of the casing to further prevent the prying up of the top in order to release the top of the panel Y. The purpose of this metal strip is to prevent the in-

sertion of a chisel or other instrument into the joint between the movable panel Y and the top of the casing.

Y^5 represents one of a number of metal plates or strips which are screwed to the vertical portions of the casing on either side and serve as abutments for the edges of the movable panel Y and also to prevent the insertion of a sharp instrument in the joint between the edge and the casing.

Y^6 is a metal lug which is attached to the vertical sides of the casing and is used to support and secure the outer edge of the top covering A′.

In connection with the slide C is employed a coin-controlled apparatus E of any desired form.

The operation of my vending-machine is as follows: To procure a package of goods, first place a coin of the proper denomination in the aperture O of the slide. Then press the plunger K inward. The inward movement of the plunger K moves the coin-slide inward, carrying the coin into operative position with relation to the coin-controlled apparatus. Upon further movement of the slide the rear end thereof engages and ejects the lowermost package R′ from the magazine, and at the same time the coin is dropped into the coin-receptacle W. When the last package is ejected from the magazine, the projection U′ of the weight U drops into the opening U^2 in the slide C, thereby locking the slide C in its inward position, so that it is no longer possible to operate this particular slide. When for any reason the slide C is prevented from moving inward, when heavy pressure is exerted upon the plunger K the projection k^2 on the plate K^2 will be deflected and allow the plunger K to move rearwardly without injuring other parts of the machine.

Many modifications of my device may be constructed without departing from the spirit of the invention.

I do not claim in this application the coin-controlled apparatus or a case construction peculiar to such apparatus which may be used in conjunction with this machine, since such apparatus forms the subject-matter of an application filed by me November 30, 1901, Serial No. 84,251.

What I claim, and desire to secure by Letters Patent, is—

1. In a vending-machine, a magazine; a slide; a plunger for operating said slide detachably mounted thereon; retracting means for said plunger; a spring-tongue mounted on the slide to eject an article from the magazine; said tongue having an upwardly-extending projecting portion to engage the under side of said article.

2. In a vending-machine, a magazine; a slide; retracting means for said slide; a spring-tongue mounted on the slide to eject an article from the magazine; said tongue having an upward projection at its rear end.

3. In a vending-machine, a magazine; a slide; a plunger for operating said slide; a lug on said slide in which the plunger is detachably mounted.

4. In a vending-machine, a magazine; a slide; a plunger for operating said slide; a depending lug on said slide in which the plunger is detachably mounted; and a spring-tongue mounted on the slide to eject an article from the magazine.

5. In a vending-machine, a slide; a plunger for operating said slide; a lug on said slide in which the plunger is mounted; a spring projection on one of the last-named parts, and a rigid projection on the other of said last-named parts which engages with the spring projection when the parts are in normal position.

6. In a vending-machine, a magazine; a weight; a slide; and means on the weight to engage and hold said slide in a rearward position.

7. In a vending-machine, a casing of suitable material provided with a movable front panel; a casting secured to the casing adapted to receive the top end of the movable panel; ledges secured to the side of the casing against which said removable panel abuts; and a lock on said panel.

8. In a vending-machine, a case; a removable panel for said case; a socket on said case to receive one end of said panel; a plate on said case to receive the opposite end of said panel; a locking-bolt on said panel; and means on said plate for receiving said bolt.

9. In a vending-machine, a case; a removable panel for said case; a lock for said panel; a top plate adjacent said panel; and means on said top plate coöperating with said lock for locking said panel.

10. In a vending-machine, a case; a removable panel for said case; a locking-bolt mounted in said panel; a top plate; and means on said plate to receive said bolt to lock said panel.

11. In a vending-machine, a case; a removable panel for said case; a socket in said case to receive one end of said panel; a locking-bolt mounted on the opposite end of said panel; a top plate; and a projection on said plate to receive said bolt to lock the panel.

RICHARD P. ELLIOTT.

Witnesses:
H. M. KELSO,
R. C. POWELL.