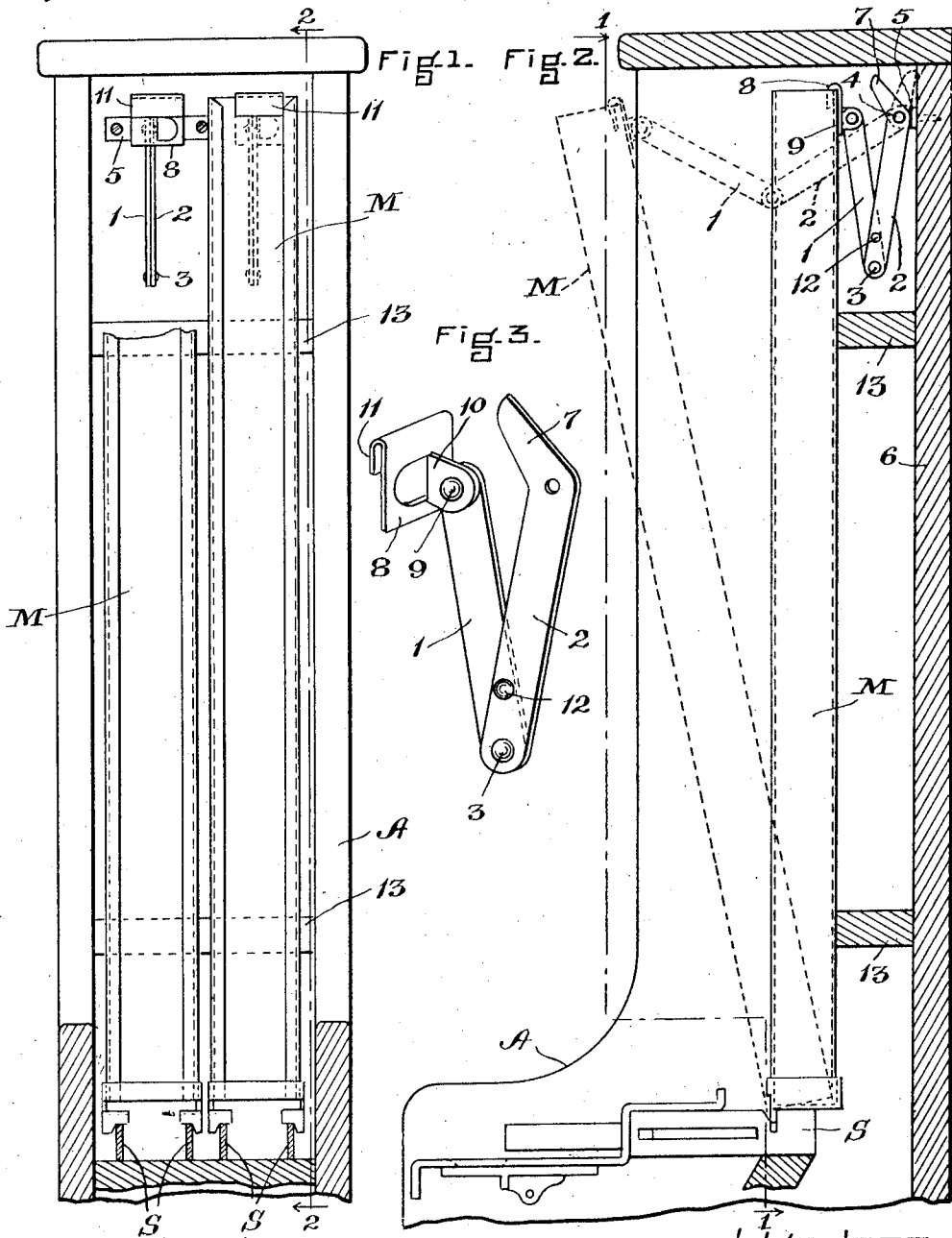


A. D. GROVER.
MAGAZINE SUPPORT FOR VENDING MACHINES.
APPLICATION FILED MAY 13, 1918.

1,331,990.

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INVENTOR.

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MAGAZINE-SUPPORT FOR VENDING-MACHINES.

1,331,990.

Specification of Letters Patent.

Patented Feb. 24, 1920.

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To all whom it may concern:

Be it known that I, ALBERT D. GROVER, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Magazine-Supports for Vending-Machines, of which the following is a specification.

The object of my invention is to provide an adjustable support for the magazines of vending machines, whereby the magazine is normally held in an upright position and may be readily tilted forwardly at its upper end.

Broadly speaking, my new and improved support comprises an adjustable device which connects the upper end of the magazine with the casing, this device permitting the upper end of the magazine to be tilted forwardly a pre-determined amount. The supporting device is provided with readily separable friction means for normally holding the magazine in upright position. This friction means on the supporting device is readily separable by forward pull on the upper end of the magazine.

In its preferred form, my new magazine support consists of a pair of arms hinged together to form a toggle which is normally closed, but which automatically adjusts itself when the upper end of the magazine is pulled forwardly. I provide means for preventing the straightening of the toggle when the magazine is in tilted position, so that the toggle will not prevent the free movement of the magazine to normal position.

In the accompanying drawings I have shown a preferred embodiment of my invention. In these drawings—

Figure 1 is a front view of a portion of a vending machine embodying my invention, this view being taken approximately on line 1—1 of Fig. 2, looking in the direction of the arrows;

Fig. 2 is a vertical cross-section on line 2—2 of Fig. 1, looking in the direction of the arrows, the magazine being shown in full lines in its normal or upright position, and in dotted lines in its forwardly tilted position; and

Fig. 3 is a perspective view of a preferred form of my new magazine support.

A suitable casing is indicated as a whole by A in the drawings, which show only the upper section thereof—that is to say, that

section which houses the magazines containing the vendible goods. In the casing A are supported one or more magazines indicated as a whole by M. These magazines may be of any suitable construction and at their lower ends rest on suitable supports S. The engagement between the lower end of each magazine and its support S is such, that the magazine may be tilted forwardly at its upper end, as indicated by the dotted lines M' in Fig. 2.

The magazine support of my invention consists in its preferred form of a pair of arms 1 and 2 which are pivoted or hinged together at 3 to form what is known in mechanics as a toggle. The arm 2 is pivoted at 4 to any fixed part of the casing, such as the bracket 5 secured to the back 6 of the casing. The arm 2 is at its upper end provided with an angular extension 7, the purpose of which will be presently explained.

The arm 1 of the toggle is at its upper end pivotally connected to a clip 8, by means of a stud 9. The clip 8 is preferably constructed of sheet metal and is formed with the rearwardly extending flange 10 through which the pivot stud 9 passes. At its forward end, the clip 8 is formed with a downwardly extending flange 11 which is adapted to hook over the top edge of the magazine.

I prefer to provide a toggle with separable friction means for normally holding the arms 1 and 2 in closed position. In the drawings I have shown such friction means in the form of a boss or button 12 struck up from the arm 2 and extending toward the arm 1. As a result, the rounded boss or button 12 will act as a frictional locking means for holding the arms 1 and 2 in their normal or closed position, as shown in Figs. 2 and 3.

The normal position of the magazine and the supporting toggle is shown in Fig. 2. Preferably, some fixed means, such as cross-bars 13, are provided at the rear of the casing for positively limiting the distance between the magazine and the back wall of the casing, so as to prevent the magazine from being pushed beyond its normal vertical position. When it is desired to swing the magazine forwardly, as for the purpose of replenishing the supply of goods, it is only necessary to pull the upper end forwardly until the toggle reaches the position indicated in dotted lines in Fig. 2. When the toggle is in extended position, the extension

7 on the arm 2 abuts against the rear casing and thereby limits the forward tilting movement of the magazine. It will also be observed from Fig. 2 that when the magazine is in its tilted position, the arms 1 and 2 of the toggle are not straightened out, but remain at an appreciable angle. This is to permit the magazine to be pushed back into normal position. If the arms 1 and 2 were in an approximately straight line when in extended position, it would be impossible to push the magazine back, unless this alignment of the toggle arms was first broken. Therefore, by positively limiting the extending movement of the arms 1 and 2 to a position in which the arms remain at an appreciable angle, the easy return of the magazine is insured.

It will be seen from the foregoing that I have provided an exceedingly simple and efficient support for the magazines of vending machines. This support requires no adjustment of any kind by the attendant in charge of the machine, and so enables the attendant to secure quick access to the magazine. All that he has to do is to pull the magazine forwardly, and, after it is filled, push it back to normal position. The toggle takes care of itself and needs no attention. The frictional button 12 prevents any accidental displacement of the magazine out of normal position, and yet yields under a forward pull at the upper end of the magazine. By means of the clip 8 the toggle is readily attached to the upper end of the magazine and as readily detached when desired.

When I say that the toggle is connected to the upper end of the magazine, I do not mean the exact upper end, but any point at a suitable distance from the lower end of the magazine.

Although I have herein shown and described a specific form of magazine support, I wish to be understood that changes and modifications may be made without departing from the invention as defined in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm having a member adjustably mounted thereon at one end thereof, said member being adapted to be detachably connected with the upper end of said magazine, a second arm pivoted at one end to said casing, said arms being at their other ends hinged together to form a toggle, whereby the upper end of the magazine may be tilted forwardly and held by said toggle in that position, and means for limiting the tilting movement of said magazine to prevent the straightening of said toggle.

2. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm pivotally connected at one end with the upper end of said magazine, a second arm pivoted at one end to said casing, said arms being at their other ends hinged together to form a toggle, whereby the upper end of the magazine may be tilted forwardly and held by said toggle in that position, and an extension on one of said arms adapted to engage a fixed part of said casing to limit the tilting movement of said magazine and thereby prevent straightening of said toggle.

3. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm pivotally connected at one end with the upper end of said magazine, a second arm pivoted at one end to said casing, said arms being at their other ends hinged together to form a toggle, whereby the upper end of the magazine may be tilted forwardly and held by said toggle in that position, means for limiting the tilting movement of said magazine to prevent the straightening of said toggle, and means on said toggle for frictionally holding the same closed when the magazine is in normal upright position.

4. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm provided at one end with a pivoted clip adapted to hook over the upper end of said magazine, a second arm pivoted at one end to said casing, said arms being at their other ends hinged together to form a toggle, whereby the upper end of the magazine may be tilted forwardly and held by said toggle in that position, and means for limiting the tilting movement of said magazine to prevent straightening of said toggle.

5. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm provided at one end with a pivoted clip adapted to hook over the upper end of said magazine, a second arm pivoted at one end to said casing, said arms being at their other ends hinged together to form a toggle, whereby the upper end of the magazine may be tilted forwardly and held by said toggle in that position, and an extension on one of said arms adapted to engage a fixed part of said casing to limit the tilting movement of said magazine and prevent straightening of said toggle.

6. In a vending machine, a casing provided with an upright magazine, means for tiltably supporting said magazine at its lower end, an arm provided at one end with a pivoted clip adapted to hook over the up-

per end of said magazine, a second arm piv-
oted at one end to said casing, said arms
being at their other ends hinged together to
form a toggle, whereby the upper end of the
5 magazine may be tilted forwardly and held
by said toggle in that position, means for
limiting the tilting movement of said maga-
zine to prevent the straightening of said
toggle, and means on said toggle for fric-
10 tionally holding the same closed when the
magazine is in normal upright position.

7. In a vending machine, a casing pro-
vided with an upright magazine, means for
tiltably supporting said magazine at its

lower end, an adjustable device connecting 15
the upper end of said magazine with the
casing, said device having means for de-
tachably engaging said magazine, said de-
vice permitting the upper end of the maga-
zine to be tilted forwardly and maintaining 20
it in that position, and readily separable
friction means on said device for normally
holding the same in position to hold said
magazine upright.

In witness whereof I hereunto subscribe 25
my name this 7th day of May, 1918.

ALBERT D. GROVER.