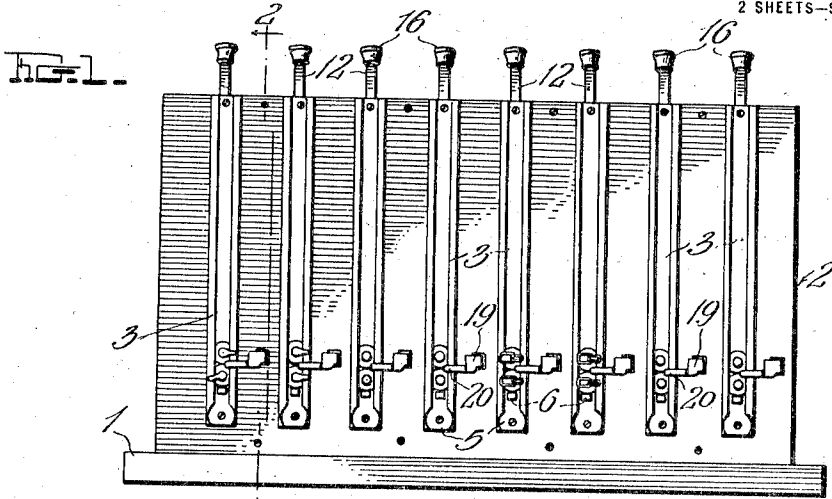
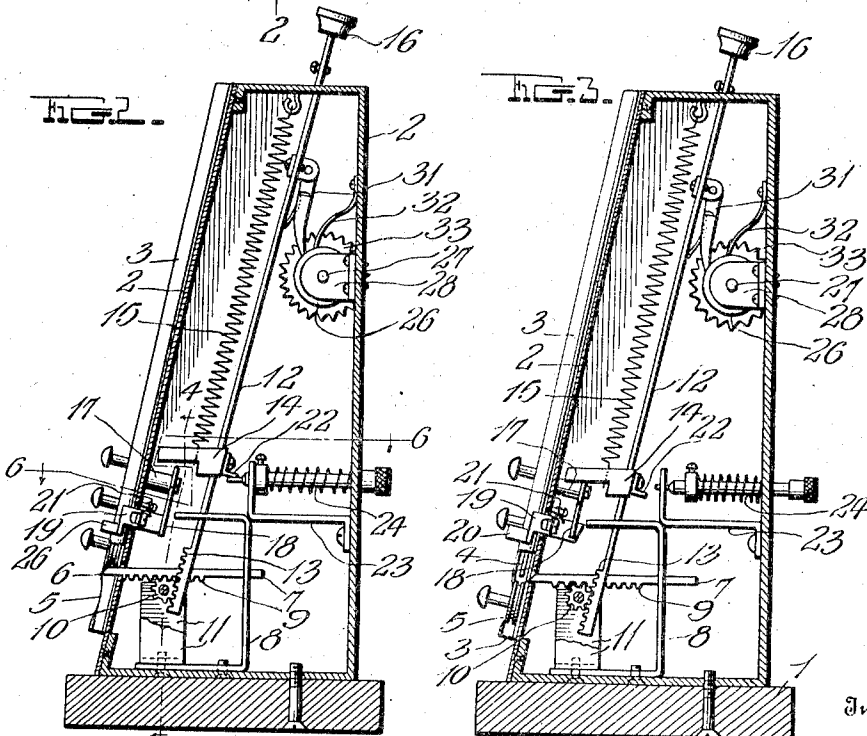


J. J. HOFFMANN.
COLLAR BUTTON DISPENSER.
APPLICATION FILED APR. 15, 1918.

1,290,197.

Patented Jan. 7, 1919.

2 SHEETS—SHEET 1.



Witnesses
H. Woodard
C. C. C. C.

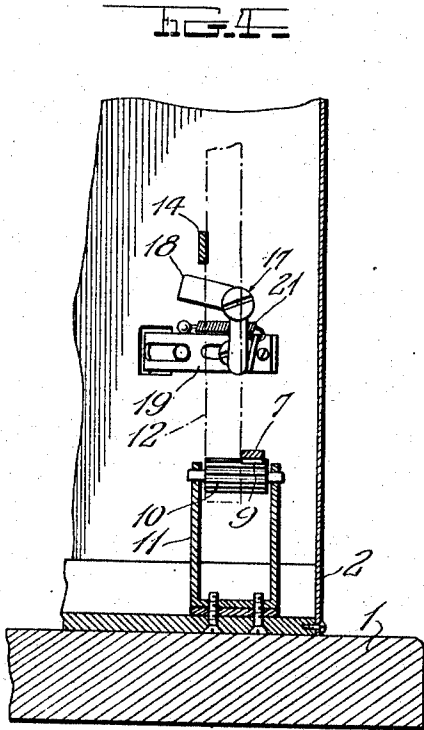
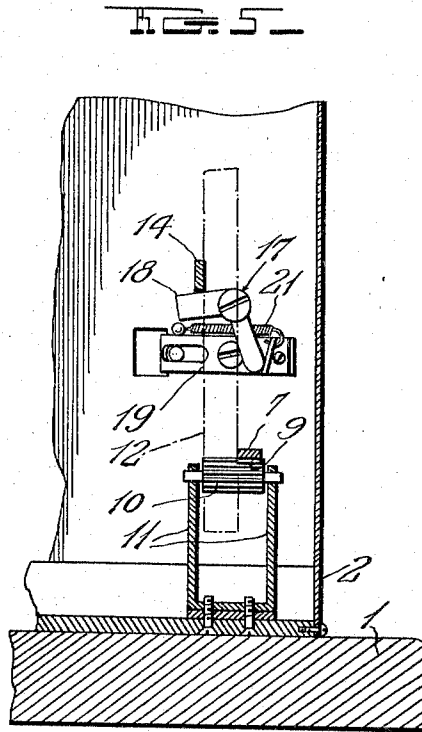
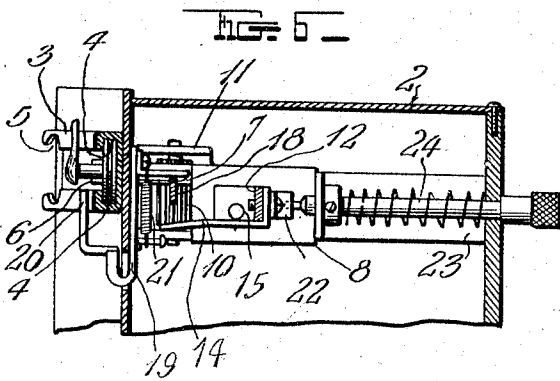
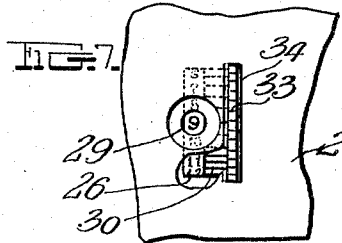
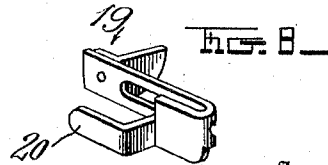
Inventor
Jacob J. Hoffmann
By *H. B. Wilson*
Attorney.

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2 SHEETS—SHEET 2.



Witnesses
H. Woodard
E. Elmer

Inventor
Jacob J. Hoffmann
By *H. B. Wilson*
Attorneys

UNITED STATES PATENT OFFICE.

JACOB J. HOFFMANN, OF BEACHWOOD, NEW JERSEY.

COLLAR-BUTTON DISPENSER.

1,290,197.

Specification of Letters Patent.

Patented Jan. 7, 1919.

Application filed April 15, 1918. Serial No. 228,746.

To all whom it may concern:

Be it known that I, JACOB J. HOFFMANN, a citizen of the United States, residing at Beachwood, in the county of Ocean and State of New Jersey, have invented a new and useful Collar-Button Dispenser, of which the following is a specification.

This invention relates to new and useful improvements in vending machines and more particularly to a display tray or cabinet for collar buttons and the primary object of the invention is to provide a device of this character which will provide a means for displaying various styles of collar buttons, supporting the same in such a manner that they will not be scratched or mutilated, and enabling the same to be dispersed one at a time.

A further object of the invention resides in providing a device which is constructed to be operable only by authorized persons, and a further object resides in providing a registering mechanism in connection therewith.

Still another object resides in providing a device which is simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangements of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings forming a part of this application—

Figure 1 is a front elevation of a device constructed in accordance with my invention;

Fig. 2 is a transverse section as seen on line 2—2 of Fig. 1, looking in the direction of the arrows and showing the device in its normal and inoperative position;

Fig. 3 is a similar view showing the parts in operative position dispensing a button from the device;

Fig. 4 is a vertical section as seen on line 4—4 of Fig. 2 looking in the direction of the arrows;

Fig. 5 is a similar view showing the parts in operative position as though taken on Fig. 3;

Fig. 6 is a horizontal section as seen on line 6—6 of Fig. 2;

Fig. 7 is a fragmentary rear elevation

of the device showing the registering mechanism and the means for observing the same; and,

Fig. 8 is a perspective view of the stop member removed.

In describing the invention I shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which 1 indicates a base member or support upon which is supported a housing or casing 2 the front wall of which is inclined rearwardly from its lower to its upper edge. Mounted on this front wall in spaced relation to one another are a plurality of slide ways 3 which are arranged in spaced relation to one another and which are designed for the purpose of displaying a number of styles of collar buttons and also designed to dispense the same therefrom readily, said dispensing means being hereinafter and more particularly described.

These slide-ways are channel-shaped in cross section and in order to prevent other than certain styles of buttons being displayed in this device, the side walls of the slide-ways are provided with ribs or the like 4 which are designed to fit in corresponding grooves formed in the peripheral edges of the backs of the buttons. The buttons are fed to the slide-ways 3 from the upper ends of the latter and the projecting portions of the slide-ways prevent the buttons being removed and allow the stems and heads thereof to project beyond the same. The lower ends of the slide-ways have the slots thereof enlarged as shown at 5 to permit the buttons to be readily removed therefrom. A stop member 6 is provided adjacent the lower end of each slide-way above the enlarged slots 5 to support the rows of buttons and this stop member will be more particularly described in connection with the dispensing mechanism.

A mechanism for dispensing the buttons is provided in connection with each slide-way and inasmuch as all of such mechanisms are the same, I shall describe but a single one.

The stop member above mentioned is formed on the outer end of a rod or bar 7 which is slidably mounted in the slot in the front wall of the housing and is supported at its rear end in a guide wall or strip 8. The stop proper has its end beveled

so that the buttons may readily ride there-
over when said stop is retracted. I have pro-
vided an improved means for retracting
this rod or bar 7 whereby to permit the
5 lowermost button of the row in the slide-
way to be dispensed and simultaneously re-
tain the other buttons in place. To this
end a rack 9 is formed on the lower face
of the bar 7 intermediate of its ends, the
10 teeth of which mesh with an elongated
pinion 10, said pinion being rotatably sup-
ported in bearing plates 11 on the base of
the housing 2. Slidably mounted through
the top wall of the housing and guided
15 through an opening in the guide wall 8 is
a push rod 12 which also has a rack 13 at
its lower end meshing with a portion of
the pinion 10.

Removably secured to the push rod 12 is
20 an angular projection 14 to which is secured
the lower end of a coil spring 15 the oppo-
site end of said coil spring being engaged
with the top wall of the housing to nor-
mally retain said push rod in a substantially
25 raised position. The upper end of the rod
has a knob or the like 16 provided thereon
and when said knob is forced outwardly
to correspondingly force the push rod down-
wardly the rod or bar 7 will be retracted
30 inwardly to withdraw the stop member 6
which supports the row of buttons in the
slide-way.

I have provided means also in connection
with this push rod to permit only the lower-
35 most button of the row in the slide-way to
be dispensed when the stop member 6 is
retracted. To this end a stud or the like
17 is provided on the inner face of the front
wall of the housing a short distance above
40 the rod 7. Fulcrumed on this stud is a bell
crank lever 18 one end of which projects
substantially horizontally and the other
downwardly in substantially vertical posi-
tion. Slidably mounted on the inner face
45 of the front wall of the housing 2 is an
angular plate 19 one angular end of which
is disposed in the moving path of one arm
of said bell crank lever. The plate is so
mounted on the wall as to be limited in its
50 sliding movement thereon and the one end
thereof is bent through a slot or the like in
the front wall of the housing and designed
to provide a stop 20. This stop has the
free end thereof beveled and is so positioned
55 above the stop 6 as to cross the path of the
slide-way in a plane just below the plane
of the neck of the next to the lowermost
collar button, when said angular plate 19 is
moved in one direction. This angular plate
60 is normally held in such a position, of
course, as to dispose the stop member to its
inoperative position and in order to accom-
plish this result a coil spring 21 is provided
on the inner face of the front wall of the
65 housing, the one end of said coil spring

being engaged with the first mentioned an-
gular end of the plate 19 while the inner
end thereof is engaged with a stud on the
inner face of said wall. When in its normal
position, this angular plate disposes of the 70
bell crank lever to a position so that the
substantially horizontally projecting arm
thereof is in the path of the angular pro-
jection 14 on the push rod 12. Thus when
said push rod is forced downwardly this 75
angular projection 14 thereon will contact
with one end of the bell crank lever to
swing the latter on its fulcrum point. Such
actuation of the bell crank lever will slide
the plate 19 on the front wall of the hous- 80
ing and dispose the stop 20 across the path
of the slide-way. It will be appreciated,
therefore, that when the push rod is forced
downwardly to withdraw the stop member 6
and permit a button to be dispensed from 85
the slide-way the other stop member 20 will
be simultaneously drawn across the path of
the slide-way to prevent the dispensing of
any other buttons. Upon the release of
pressure upon the push rod the latter will 90
be returned to its initial position as will
also the stop member 20 and the row of
buttons will then be dropped down so that
the button which was formerly next to the
lowermost will rest upon the stop member 95
6 and be in position to be dispensed upon
the next operation of the push rod.

This particular apparatus is well adapted
for use in various haberdasheries and in
department stores handling such articles 100
and in order to prevent any unauthorized
person from operating this device, a lock-
ing mechanism is provided therefor. In
carrying out this idea an angular lug 22 is
provided on the push rod, the same facing 105
rearwardly and secured to said push rod
by the same means which secures the angu-
lar projection 14 thereto. An additional
guide strip 23 is provided on the rear wall
of the housing and slidably mounted through 110
this rear wall and said guide strip is a
spring forced plunger 24. The tendency
of the plunger is to be drawn inwardly and
a head on the outer end thereof limits the
inward movement of said plunger. The ex- 115
treme inner end of said plunger is normally
disposed in the path of the angular lug
22 so that in order to actuate said push rod
this plunger must be retracted. Inasmuch
as the plunger may only be retracted from 120
the rear wall thereof and inasmuch as this
wall faces rearwardly it will be appreci-
ated that the device being seated on a coun-
ter or the like will only be operated by those
125 authorized.

I have, however, also provided, in con-
nection with my device, a registering mech-
anism to indicate the number of times the
push rod has been actuated to dispense but-
tons from the device. In carrying out this 130

idea, I provide a disk member 26 with a plurality of members thereon, said disk being carried by a shaft 27 which is rotatably mounted in bearing plates 28. These plates are carried on the inner face of the rear wall of the housing and an opening 29 in said rear wall permits the numbers on the disk to be readily observed. A ratchet 30 is also mounted on this shaft 27 and a spring held pawl 31 is carried on the push rod for engagement with the teeth of said ratchet. Thus each time the push rod is forced downwardly the pawl being engaged with a tooth of the ratchet, will turn the latter, together with the disk and shaft. In order to retain the disk and ratchet in the position to which the same has been adjusted by the downward pressure of the push rod a spring member 32 is provided on the rear wall of the housing, said spring member being bent intermediate of its ends and having its free end engaged with said ratchet. Upon the return of the push rod to its initial position, therefore, the ratchet will remain in the position to which the same has been turned by the downward pressure of the push rod. A finger operated ratchet 33 is also provided on the shaft 27, a portion of which projects through a slot 34 in the rear wall of the housing. Through this medium, the ratchet may be turned by hand at any time desired. It will be understood from this construction that each time the push rod is forced downwardly to dispense a button from the housing, the registering mechanism will indicate the same and all unauthorized dispensing of buttons from the device will, therefore, be readily detected.

From the foregoing description of the construction of the device and the manner of applying the same to use, the operation thereof will be readily understood and it will be seen that I have provided simple, inexpensive and efficient means for carrying out the objects of my invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to, within the scope of the appended claims, without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described my invention, what I claim is:

1. In a dispensing apparatus of the class described, a housing having a slot in the front wall thereof, a member movable horizontally therethrough, a pushrod operating through said housing for substantially vertical movement, means in connection with said rod to normally retain the same in inactive position, and a pinion in connection with the lower end of said rod and said

member to actuate the latter as said rod is operated.

2. A dispensing mechanism of the class described comprising a housing having an opening in one wall thereof, a bar operable through said opening and designed to provide a stop member on the device, said bar being provided with a rack on one face, a pinion rotatable in the housing and engaging said rack, a push rod operable substantially vertically through said housing and also having a rack engaging said pinion, means to normally retain said rod in its inactive position to correspondingly dispose said bar to its extended and operative position, and an additional stop member in connection with said push rod adapted to be disposed to its operative position when the first mentioned stop member is inoperatively positioned.

3. In a dispensing mechanism of the class described, a housing, a push rod mounted to operate for substantially vertical movement through the housing, means for normally retaining said push rod in one position, a releasing mechanism in connection with said push rod to operate upon the operation of the latter, a projection carried on said push rod, and a plunger operable through one wall of said housing and adapted for engagement with said projection to lock said push rod against movement in the housing.

4. A dispensing mechanism of the class described comprising a housing, a push rod operable through the housing for substantially vertical movement, spring means to normally retain the said rod in its raised position, a release mechanism in connection with the lower end of said rod actuated upon the lowering of the latter, a stop member slidably mounted on the housing and operable horizontally thereof, means to normally retain said stop member in its inoperative position, and means in connection with said stop member and said push rod to dispose the former to its operative position when the push rod is lowered.

5. In a dispensing mechanism of the class described, a housing, a push rod operable for substantially vertical movement therein, means to normally retain said push rod in its inoperative position, a release mechanism in connection with said rod and actuated upon the actuation thereof, a stop member slidably horizontally on the housing and having an angular projection thereon disposed within the housing, spring means to normally retain said stop member in its inoperative position, a bell crank lever fulcrumed on the inner wall of the housing and having one arm disposed in the path of the angular projection of said stop member, and an additional projection on said push rod adapted to engage the other arm of said

bell crank lever to actuate the latter upon the lowering of the push rod whereby to dispose said stop member to its operative position when the release mechanism is in-
5 operatively positioned.

6. The combination with a dispensing machine including a casing having means to retain the goods to be vended, goods delivering means including a manually oper-
10 able handle disposed remote from the rear side of the casing, and a spring applied

manually released locking bolt normally preventing actuation of said handle, and having one end extended through the rear side of the casing to be grasped by the op- 15 erator, whereby said bolt may be released.

JACOB J. HOFFMANN.

Witnesses to the signature of Jacob J. Hoffmann.

SAMUEL B. PIERCE,
CHESTER E. MCKELVEY.

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