UNITED STATES PATENT OFFICE.

MICHAEL DORION, OF RUMFORD, MAINE.

YEAST-CAKE CABINET.

1,252,327.


Application filed April 17, 1917. Serial No. 169,691.

To all whom it may concern:

Be it known that I, MICHAEL DORION, a citizen of the United States, residing at Rumford, in the county of Oxford and State of Maine, have invented new and useful Improvements in Yeast-Cake Cabinets, of which the following is a specification.

This invention relates to store furniture, and more especially to delivery cabinets, and the object of the same is to produce an extremely cheap single-article delivery cabinet of this type which I have herein shown and described as useful for vending yeast cakes and the like, although of course it is adapted to deliver other articles, usually packages, one at a time.

The primary purpose of the present invention is to produce such a cabinet at an extremely low cost of manufacture, provided with practical means which may be added at little expense for rendering the contents inaccessible to the general public as will be explained. Details are found in the following specification, reference being had to the accompanying drawings thereof:

Figure 1 is a perspective view of this cabinet attached to a wall ready for use, showing the hinged cover as raised and the locking padlock as slightly removed.

Fig. 2 is a vertical central section, and Fig. 3 a cross section on the line 3-3 of Fig. 2 with the back plate removed.

Figs. 4 and 5 are a perspective detail and a diagrammatic view respectively of a slight amplification which may be employed to render the delivery mechanism inoperative to one who does not understand it.

In the drawings the numeral 1 designates the casing which may well be an upright box open at its front and having internal grooves 2 in its side walls for a front panel which consists of a glass strip 3 inserted into the upper ends of these grooves and run down to their lower ends 4 where they terminate just short of the delivery outlet 5 as best seen in Fig. 2. The bottom of the casing may be closed by a block 6 which by preference is inserted from beneath and held by screw 7 through the side walls, so that it can be removed when access is to be had to the delivery mechanism proper, and the front end of this block is turned upward and terminates in a lip 8 standing just beneath the delivery outlet 5. The latter is proportionate to the thickness of the articles A to be vended, which in the present case are cakes or packages of yeast or the like having a contour adapted to fit within the upright casing. The side walls may also be provided with a pair of grooves 9 (see Fig. 3) into which from above may be slid a back plate 10, of glass, sheet metal, or even of thin wood. The purpose of this plate is to cover the heads of the screws 11 which pass through the rear wall of the casing and into the wall or other upright support, and unless this back plate is removed access to the heads of these screws is not possible. If this back plate be not transparent, the existence of these screws even may be concealed. The presence of the back plate prevents any possibility of the articles A catching on the heads of the screws, and the front face of this plate as well as the inner face of the glass strip 3 and the side walls of the casing are smooth so that there is no obstruction to the packages shown in Fig. 2 settling when the lowermost package or article A is removed from the cabinet. The cover may be hinged as at 12 to the upper end of one side wall, and its free edge may carry a hasp 13 passing over a staple 14 in the outer face of the other side wall, so as to receive a small padlock 15, shown removed in Fig. 1; and when this padlock is applied to the staple, the cover is locked closed and access to the interior of the casing is prevented. This is a detail which may be used or may be omitted. If the cabinet is to be employed behind the counter where only the store keeper will have access to it, there is of course no necessity of locking the cover; but it may be possible that the cabinet will be used in public places, and in that case I would prefer that the public be excluded. Closing the cover locks the glass strip 3 against removal, and therefore no access can be had through the front. The outlet opening 5 is too small for anyone to insert his fingers and remove one of the articles A. While the bottom block 6 is held in place only by screws, the general public does not carry a screw driver, and in any event an unauthorized person would be observed if he should take apart the casing.

The delivery or ejecting mechanism proper is located within a chamber 20 formed at the lower end of the casing by recessing the front face of the back plate as seen at 21. 100

105

110
Within this chamber are disposed three rollers numbered respectively 22, 23, and 24, and the front and rear rollers have their trunnions journaled in bearings in the side walls of the casing, while the trunnions of the intermediate rollers are journaled in bearings disposed a little lower as seen in Fig. 2. Across the outermost and uppermost rollers runs an endless belt 25 which passes down around them and up over the intermediate roller 23, and the belt underlies the lowermost of the stack of articles A as seen. One of the trunnions of the intermediate roller is continued through the side wall of the casing and formed into a handle, shown in Fig. 1 as cranked as at 26 and standing on the right side of the casing as the user faces it. When now he grasps this handle and turns it in the normal or usual direction, that is toward the right, the intermediate roller is turned in the direction of the arrow in Fig. 2, and the other rollers rotate in the opposite direction by reason of the winding of the belt 25; and as a result the upper stretch of the belt is caused to move forward so that the lowermost article A in the stack within the casing is delivered or ejected through the outlet opening 5, and drops into the hand of the user. In order to effect this delivery, it is essential that the surface of the belt be rather rough or the material of the belt be such that it will cling somewhat to the box, wrapper, or casing of the lowermost article with sufficient force or clinging tendency to slide this article from beneath the stack, regardless of the weight of the latter upon it.

Assuming now that a cabinet of this kind is fastened to the wall behind the counter in the average store, and that the glass strip is removed and the entire cabinet filled with a stack of articles A, such as yeast cakes. When a customer approaches and desires to purchase a yeast cake, the storekeeper has but to grasp the crank handle 26 and give it a rotation such as with the right hand, meanwhile holding his left hand under the cabinet, and a single cake is ejected through the outlet 5 and falls into his left hand. Thus the customer may be served almost instantly, and the storekeeper is saved the necessity and trouble of going to a can, box, or jar, and picking out a yeast cake. Such storage receptacle may be empty, whereas the glass strip permits the manager of the store to know at any time how many articles A are ready for sale. The storekeeper or his clerk might neglect to return the cover to the jar or close the lid of the receptacle, and the yeast cakes on hand are then subjected to the accumulation of dust and the incursions of insects, whereas in the present device the accumulated stack of articles A is entirely inclosed except for the very small outlet 5. Finally, by use of this invention, the storekeeper is always selling his oldest yeast cake because the stack is replenished by placing new ones on the top. If he should keep them in a jar or like receptacle, the oldest yeast cakes are at the bottom and he is always selling the latest one, which of course is not desirable.

In Figs. 4 and 5 I have shown a slight amplification of which the device is susceptible, to render the ejecting mechanism practically inoperative to a person not acquainted with it. The same rollers and belt are here employed, but the intermediate roller 23 has its trunnions 34 projected laterally in both directions through upright slots 35 in the side walls of the casing, knob-shaped handles 36 are formed on the outer end of said trunnions, preferably on both of them. The slots are so disposed that normally the trunnions lie in their lower ends, with the result that the belt 25 has a certain slack under the endmost rollers as indicated at 25' in Fig. 5; and therefore no matter which way the intermediate roller is turned it does not impart movement to the belt and therefore no article A is delivered. The trick of successfully operating this device is not known to the general public, but it is extremely simple when it is known. All the operator has to do is to grasp the knob in his two hands and raise them, while rotating the intermediate roller 23 in the direction of the arrow shown in Fig. 2. As soon as he raises this roller its upper side puts tension on the belt, and therefore its rotation causes the belt to move as already described. It is indeed quite possible to make the slots so short and to adjust the parts so accurately that all the storekeeper need to do is to raise one knob and rotate it, permitting the intermediate roller to have its axis slightly canted at that time while the other trunnion stands at the lower end of its slot. If this can be successfully accomplished by proper manufacture, the maker might even omit one trunnion and mount the other in a slot 35 as suggested; but I prefer to use a knob 36 rather than a crank handle 26, because this type of handle needs to be sustained while it is rotated. Immediately on releasing either or both the knobs, the intermediate roller drops back into the position indicated and the belt again becomes slack at 25'. With the adoption of this little amplification, it is quite possible to dispose the cabinet in public places or to mount it on a wall anywhere within the average store and within reach of any customer, as only a person knowing the trick can work the ejecting mechanism to deliver an article A through the outlet 5.

The entire device is extremely simple in structure, cheap of manufacture, and easy of operation; and if the details above described are followed, all parts are accessible.
for cleaning and repair. I do not wish to be limited to the sizes, proportions, shapes and materials other than as hereinbefore set forth.

What is claimed as new is:

1. In a delivery cabinet, the combination with an upright casing, and a base block formed with an internal chamber and an outlet opening; of the ejection mechanism located within said chamber and comprising three rollers whereof the trunnions of the intermediate one are mounted in journals on a lower level than those of the other rollers, one of the intermediate trunnions projecting through the side of the casing and having a handle, and an endless belt passing over and around the endmost rollers with both its stretches passing over the intermediate roller, for the purpose set forth.

2. In a delivery cabinet, the combination with an upright casing open at its front and having grooves in the inner faces of its side walls terminating near the lower ends, a glass strip removably inserted in said grooves from above, a cover, and a base block formed with an internal chamber and having its front end spaced beneath the lower end of the strip to produce an outlet opening; of the ejection mechanism located within said chamber and comprising three rollers whereof the trunnions of the intermediate one are mounted in journals on a lower level than those of the other rollers, one of said trunnions projecting through the side of the casing and having a handle, and an endless belt passing over and around the endmost rollers with its intermediate stretch passing up over the intermediate roller, for the purpose set forth.

3. In a delivery cabinet, the combination with an upright casing, its lower end having an enlarged chamber; of an ejection mechanism located within said chamber and comprising three rollers whereof the endmost have their trunnions journaled in the side walls of the casing, the latter being provided between said journals with upright slots, the trunnions of the intermediate roller passing through said slots and having operating means at their outer ends, and an endless belt passing over and around the endmost rollers and both its stretches passing over the intermediate roller, for the purpose set forth.

4. In a delivery cabinet, the combination with an upright casing having a transparent front wall and an outlet opening at the lower end of the same, the body of the casing adapted to receive a stack of articles and its lower end having an enlarged chamber; of an ejection mechanism located within said chamber and comprising three rollers whereof the endmost have their trunnions journaled in the side walls of the casing, the latter being provided between said journals with upright slots, the trunnions of the intermediate roller passing through said slots and having knobs at their outer ends, and an endless belt passing over and around the endmost rollers and up and over the intermediate roller, for the purpose set forth.

In testimony whereof I affix my signature.

MICHAEL DORION.

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