

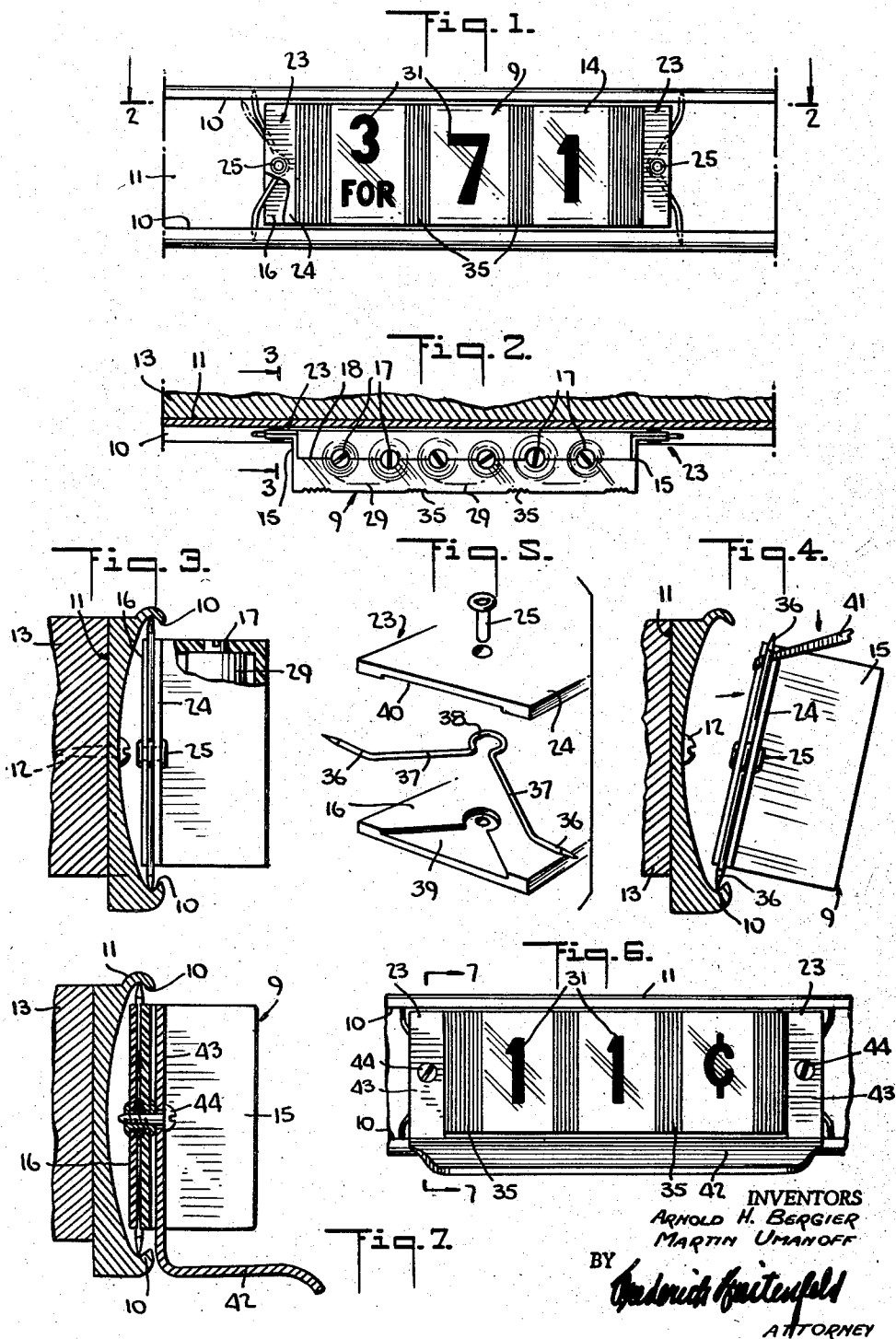
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CHANGEABLE PRICE INDICATOR

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CHANGEABLE PRICE INDICATOR

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This invention relates generally to sign exhibitors, and has particular reference to a changeable price indicator for use in retail establishments.

It is a general object of the invention to provide an improved time-saving device for designating the prices of commodities displayed on the shelves of stores, especially self-service markets. A more particular objective is to provide improvements in the type of device described and illustrated in our pending patent application, Serial No. 744,551, filed June 25, 1958.

The variable price indicator disclosed in our earlier patent application is a relatively simple and conveniently usable device which is attractive in appearance and inexpensive to manufacture, and is provided with a means whereby any of a variety of price indications may be displayed. Essentially, it consists of a chamber having a front vertical window, and a series of spindles arranged in parallel pairs within the chamber, there being a tape or ribbon, with price indicia on one face, extending from one spindle of each pair to the other, with a span lying directly behind and exposed through the window. Each spindle has an end extending through the chamber wall so as to be exteriorly accessible for engagement.

It is a particular object of the present invention to provide an improved means for removably securing a device of this kind to a supporting channel or molding of C-shaped cross-section mounted on the front edge of a store shelf.

It is a more particular object of the invention to provide an improved securing means which holds the device firmly against inadvertent or malicious displacement, and which nevertheless permits an authorized person to disengage the device from the supporting channel, should it be desirable to remove it or shift its location.

A further specific objective of the invention is to provide an improved securing means which extends from the chamber in a region rearwardly of the accessible spindle ends, so that the manipulation and adjustment of the spindles, to alter the displayed price indication, may be readily accomplished by authorized personnel without disturbing the securement of the device to the store shelf.

Another object of the invention is to provide an improved means whereby the device is shielded against accidental injury, in cases where it is secured to a relatively low shelf against which the wheels or body of a shopping cart may bump. More particularly, the invention aims to provide a protective bumper of simple yet effective character which may be readily attached to and removed from the device, as the location of the device may dictate.

In the preferred embodiment of the invention, the windowed chamber is provided with a pair of panels extending laterally from the rear thereof; a means (including hollow rivets) is carried by the panels to secure the chamber to the desired shelf edge; a protective bumper is provided, adapted to underlie the chamber and extending forwardly beyond the plane of the window;

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and the bumper is fastened to the panels by fasteners that extend through the hollow rivets.

Among the important features of the invention are the simplified and low-cost ways in which the several objectives are attained, whereby the device may be manufactured in quantities at low cost, and used with ease.

The preferred way of achieving the objects and benefits of the invention, and such other objects and advantages as may hereinafter appear or be pointed out, is illustratively exemplified in the device in the accompanying drawings in which:

Fig. 1 is a front elevational view of a variable price indicator embodying the features of this invention, shown in operative position within a supporting channel on the front edge of a shelf;

Fig. 2 is a plan view, partly in section along the line 2—2 of Fig. 1;

Fig. 3 is an end view of the device on an enlarged scale, this view being taken substantially along the line 3—3 of Fig. 2;

Fig. 4 is a view similar to Fig. 3, showing the manner in which the device is attached to and removed from the supporting channel;

Fig. 5 is an exploded view of the elements at one end of the device;

Fig. 6 is a view similar to Fig. 1, with the protective bumper secured to the device; and

Fig. 7 is an enlarged cross-sectional view along the line 7—7 of Fig. 6.

The indicator herein chosen for illustration consists of a substantially rectangular chamber 9 provided with a front vertical window 14, top and bottom walls arranged in parallel horizontal planes, and end walls 15. The chamber may if desired be provided with a rear wall 16 parallel to the window 14. The chamber is provided with laterally extending panels or extensions 23. These extensions consist of two layers or plies, the rearward layer being an integral part of the rear wall 16, the forward layer being preferably an integral part 24 of the adjacent end wall 15. The two layers of the extensions are secured together by eyelets or hollow rivets 25.

The chamber 9 is intended to be removably secured in clamped relation between the opposed grooves 10 of a metal molding strip or C-shaped channel 11 which is itself secured by screws or other fasteners 12 (Fig. 3) to the front edge of a shelf 13. The channel 11 is of a conventional kind, within which separate numbered cards or tickets are commonly supported for price-indicating purposes.

The top and bottom walls of the chamber 9 are provided with aligned circular apertures defining bearings for a series of spindles arranged in parallel pairs within the chamber.

For convenience of manufacture and assembly, the bearings in the top and bottom walls are formed along the lines of cleavage 18. Thus the rear part of the top wall, and the corresponding rear part of the bottom wall, may be formed as a unit with the rear wall 16 of the chamber; while the front part of the top wall, and the front part of the bottom wall, may be formed as a unit with the front window 14 and the end walls 15. The edges that abut along the lines 18 are provided with semi-circular notches which form circular bearings for the ends of the spindles. A set of spindle ends is designated 17 in Fig. 2. They are purposely flat, and lie flush with the chamber wall in which they are journaled. Each spindle end has a diametric slot or similar formation, whereby the application of a small screwdriver or other special tool permits each spindle to be rotated, as may be desired. Nevertheless there is an absence of any projecting spindle ends by means of which unauthorized persons might tamper with the settings.

It is not necessary that there be any transparency in any wall of the chamber other than the front window 14, but it may be convenient from a manufacturing standpoint to form the various parts of the device as integral molded elements of transparent glass or plastic.

As stated, the spindles within the chamber are provided in pairs. In the device illustrated, there are three such pairs. A ribbon 29 is secured at its opposite ends to the spindles of each pair. This ribbon or tape may be of any suitable material and of any convenient length. On its exposed face it is provided with price indicia 31. The tape is wound upon the spindles so as to extend from one to the other along a span which lies parallel to and directly behind the window 14.

In order for the displayed ribbon spans to be effective to maximum degree, it is desirable that the window 14 be provided with relatively opaque areas between the regions directly in front of the exposed indicia. One convenient way of doing this is to roughen or knurl the front face of the window 14 as shown in the areas 35. This effectively conceals the spindle mountings and makes the displayed indicia appear as though there were separate cards involved.

The improved attaching means is best illustrated in Fig. 5. A pair of oppositely extending clamp-pins 36 are joined together by a V-shaped spring having divergent spring arms 37 and a rounded loop 38 at the apex of the V. The clamp-pins and the spring may be conveniently formed of a single element of resilient wire, tempered in such a way that the pins 36 normally tend to move apart, but may be drawn together by pressing the arms 37 toward each other against the urge of the inherent springiness.

There is a spring of this kind, and corresponding clamp-pins secured to the ends of the spring arms, at each end of the device. The spring is secured at its apex, and this may be conveniently achieved by passing the rivet 25 directly through the rounded part 38 of the spring. If desired, the panel 23 may be provided with a triangular recess within which the spring may be accommodated. In the construction illustrated in Fig. 5, this triangular recess is formed partly in the layer of material 16, as indicated at 39, and partly within the layer 24, as indicated at 40. It will be understood, however, that the recess for accommodating the spring may be formed entirely in one or the other of the two layers that are secured together by the rivet 25. Under certain circumstances, the recess may be omitted entirely, but in such a case the spring arms cannot be so conveniently manipulated.

As best indicated in Fig. 1, the parts are so constructed and arranged that each chamber wall extension 23 covers all but the ends of the arms of the spring associated with it. As a result, after the device has been clamped to the supporting channel, it cannot be released without the employment of an attenuated tool such as that indicated at 41 in Fig. 4. Unauthorized tampering with or shifting of the price indicator is thus greatly minimized. On the other hand, it is still a relatively simple matter for an authorized person to insert a pin or tool 41 into the small space behind the end of the clamp-pin 36 and to press the pin into the position shown in dotted lines in Fig. 1. A simultaneous manipulation of the pin at the other end of the device releases the price-indicator from its clamped relation to the channel, and permits it to be shifted or withdrawn.

It is to be noted that the clamping means which holds the price indicator in position lies rearwardly of the spindle ends 17. Accordingly, the price indications may be readily changed by authorized personnel either before or after the device has been clamped into engagement with the supporting channel.

The protective bumper shown in Figs. 6 and 7 is useful when the price indicator is secured to a relatively low shelf. The bumper may be composed of a single ele-

ment of metal or the like, and consists of a fender part 42 lying beneath the chamber 9 and extending forwardly beyond the plane of the front window. At its opposite ends, the part 42 is provided with upwardly extending arms 43. These arms are so spaced that they are adapted to overlie the lateral panels 23. They are also provided with openings adapted to receive fasteners 44 which enter into and become secured to the hollow rivets 25. The fasteners 44 may be screw-threaded, and by this simple expedient the protective bumper may be applied to or removed from the price-indicator. When in position, the forwardly projecting fender 42 prevents accidental injury to the front window of the device.

It will be understood that many of the details herein described and illustrated may be modified by those skilled in the art without necessarily departing from the spirit and scope of the invention as expressed in the appended claims.

What is claimed is:

1. In a changeable price indicator, the combination with a substantially rectangular chamber having a front vertical window through which price indicia are exhibited, of means for attaching said chamber to a supporting channel of C-shaped cross-section, said attaching means comprising a pair of oppositely extending clamp-pins projecting laterally from the rear part of the chamber and adapted to bite into the opposed grooves of said supporting channel.

2. The combination with the structure defined in claim 1, of yieldable resilient means for pressing said clamp-pins apart.

3. The structure defined in claim 1, in which said pair of clamp-pins is adjacent to one end of the chamber, and in which there is a second pair of said clamp-pins adjacent to the opposite end.

4. The combination with the structure defined in claim 1, of yieldable resilient means for pressing said clamp-pins apart, said means comprising a V-shaped spring secured to said chamber at its apex and connected to said clamp-pins at its ends.

5. The combination with the structure defined in claim 1, of a V-shaped spring secured at its apex to said chamber and having arms whose ends are connected to said clamp-pins, said spring being operable to press said clamp-pins apart in a yieldably resilient manner, and means carried by said chamber to cover all but the ends of said spring arms.

6. The combination with the structure defined in claim 1, of V-shaped spring secured at its apex to said chamber and having arms whose ends are connected to said clamp-pins, said spring being operable to press said clamp-pins apart in a yieldably resilient manner, and means carried by said chamber to cover all but the ends of said spring arms, said means comprising a chamber wall parallel to the front window and provided with a triangular recess within which said spring is accommodated.

7. The combination with the structure defined in claim 1, of a V-shaped spring having arms whose ends are connected to said clamp-pins, said spring acting to press said clamp-pins apart in a yieldably resilient manner, a panel carried by the chamber and covering all of said spring except the ends of its arms, and a fastener on said panel engaging the apex of said spring.

8. The combination with the structure defined in claim 1, of a V-shaped spring having arms whose ends are connected to said clamp-pins, said spring acting to press said clamp-pins apart in a yieldably resilient manner, a panel carried by the chamber and covering all of said spring except the ends of its arms, and a fastener on said panel engaging the apex of said spring, said panel lying in a plane parallel to the front window and composed of superposed plies between which the spring is sandwiched.

9. In a variable price indicator adapted to be secured to the front edge of a relatively low store shelf, a cham-

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ber having a front window and provided with changeable indicia adapted to show through said window, a pair of panels extending laterally from said chamber at the rear thereof, means carried by said panels to secure the chamber to said shelf edge, and a protective bumper underlying said chamber and having a fender part extending forwardly beyond the plane of said window.

10. In a variable price indicator adapted to be secured to the front edge of a relatively low store shelf, a chamber having a front window and provided with changeable indicia adapted to show through said window, a pair of panels extending laterally from said chamber at the rear thereof, means carried by said panels to secure the chamber to said shelf edge, a protective bumper adapted to underlie said chamber and having a fender part extending

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forwardly beyond the plane of said window, and means for removably securing said bumper to said panels.

11. The structure defined in claim 10, in which said chamber securing means includes hollow rivets carried by said panels, and in which said bumper securing means comprises bumper arms extending upwardly to overlie said panels, respectively, and fasteners extending through said arms and into said rivets.

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