Nov. 9, 1943. M. GREENWALD ET AL 2,334,083

INTERCHANGEABLE SIGN

Filed Dec. 6, 1941 2 Sheets-Sheet 1

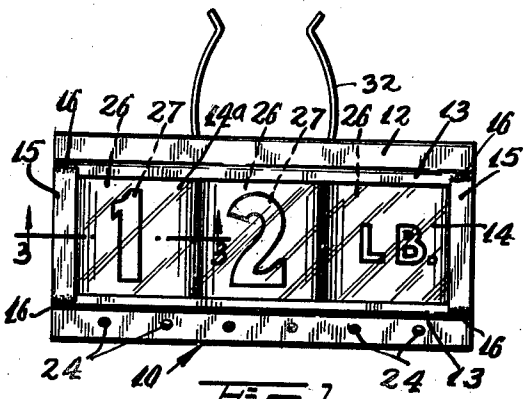


Fig. 1.

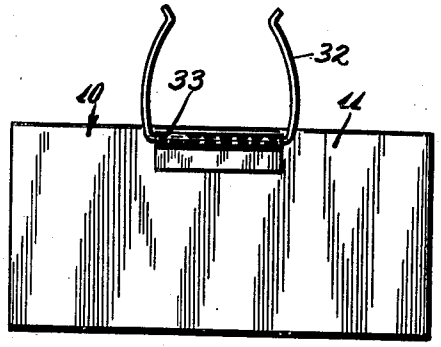


Fig. 2.

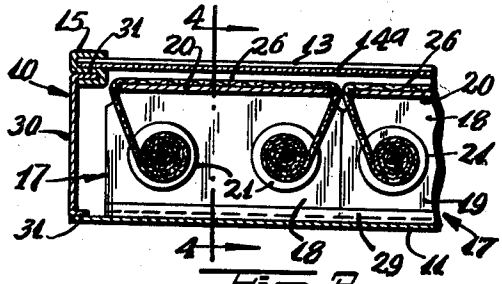


Fig. 3.

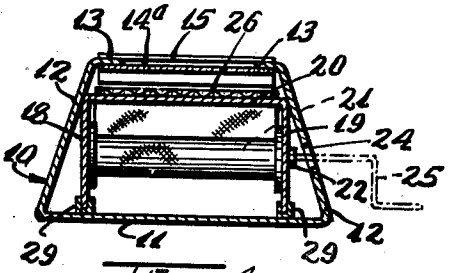


Fig. 4.

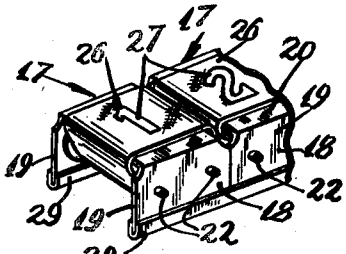


Fig. 5.

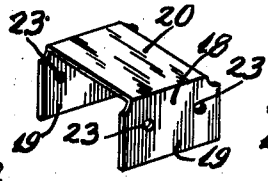


Fig. 6.

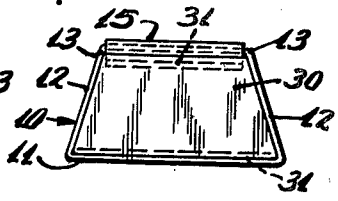


Fig. 9.

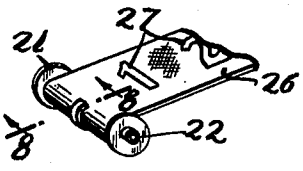


Fig. 7.

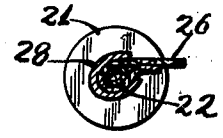


Fig. 8.

Fig. 10.

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INTERCHANGEABLE SIGN

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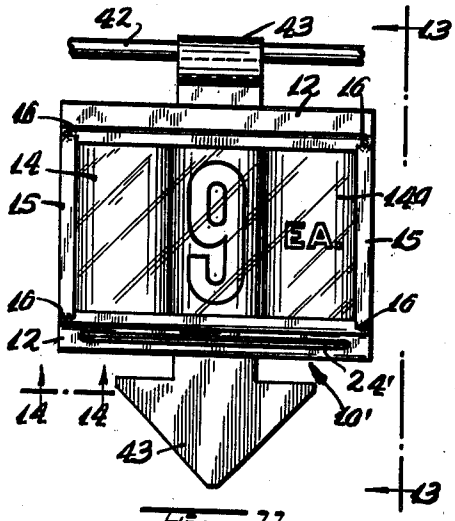


Fig. 11.

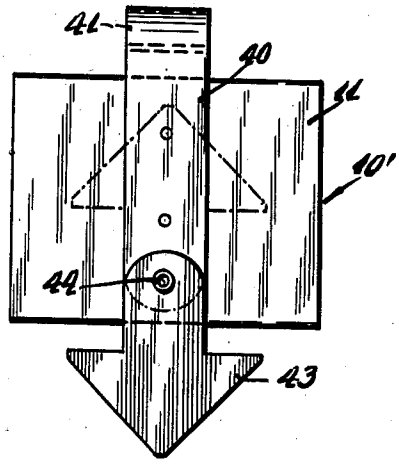


Fig. 12.

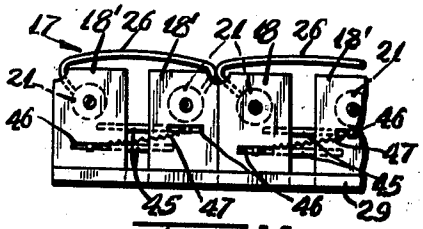


Fig. 15.

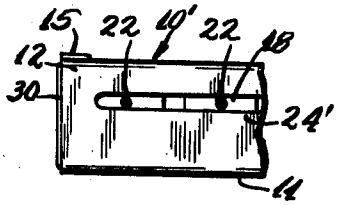


Fig. 14.

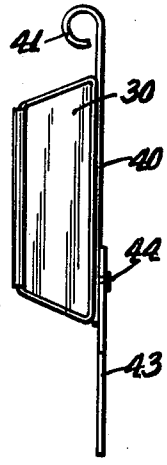


Fig. 13.

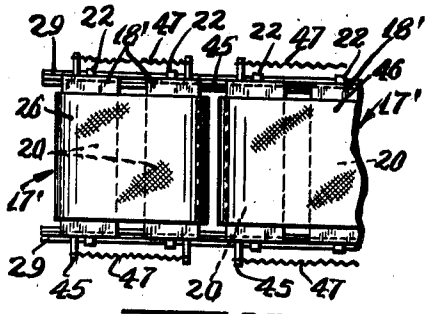


Fig. 16.

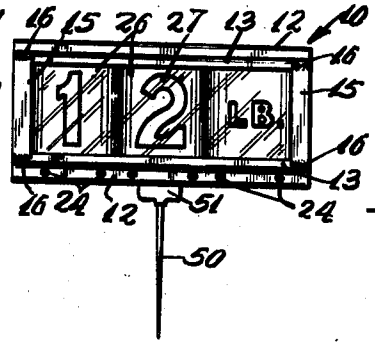


Fig. 17.

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INTERCHANGEABLE SIGN

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Application December 6, 1941, Serial No. 421,866

7 Claims. (Cl. 40—86)

This invention relates to new and useful improvements in an interchangeable price card sign.

More specifically, the invention proposes the construction of an interchangeable price card sign characterized by a container having a top window opening with a plurality of sign units disposed there-beneath in a manner to permit a desired numerical value to be displayed through the window opening.

Still further it is proposed to characterize each of the sign units by an inverted U-shaped member supporting a pair of adjacent rollers carrying a sign strip imprinted successively with numerals ranging from 1 to 9 and arranged so that the ends of the strip may be rolled upon either of the rollers to display a desired number across the top face of the U-shaped member.

A further object of the invention proposes the provision of openings in one side wall of the container through which a crank or tool may be inserted for engagement with the rollers to facilitate the rotation thereof for advancing the sign strip.

Still further it is proposed to mount the sign units upon tracks arranged in a manner to connect these units together for unitary insertion into the container through the open ends thereof.

A further object of the invention proposes the provision of removably mounted end walls for the container arranged to close the ends of the container after the sign units have been inserted therein.

Still further a modification of the invention proposes to characterize each of the sign units by a pair of adjacent inverted U-shaped members carrying a single sign strip and provided with a means for resiliently urging the U-shaped members apart permitting sign units of different sizes to be used within a container with resilient means arranged to spread the sign units throughout the entire interior capacity of the containers.

For further comprehension of this invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a plan view of an interchangeable price card sign constructed in accordance with this invention.

Fig. 2 is a bottom view of Fig. 1.

Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a perspective view of a portion of the sign units removed from the container.

Fig. 6 is a perspective view of one of the inverted U-shaped members, per se.

Fig. 7 is a perspective view of one end of the sign strip, per se.

Fig. 8 is an enlarged sectional view taken on the line 8—8 of Fig. 7.

Fig. 9 is an end elevational view of the container.

Fig. 10 is a perspective view of the tape, per se.

Fig. 11 is a plan view similar to Fig. 1 but illustrating an interchangeable price card sign constructed according to a modification of the invention.

Fig. 12 is a rear view of Fig. 11.

Fig. 13 is an end elevational view looking in the direction of the line 13—13 of Fig. 11.

Fig. 14 is a view looking in the direction of the line 14—14 of Fig. 11.

Fig. 15 is an elevational view of the sign units, per se.

Fig. 16 is a plan view of Fig. 15.

Fig. 17 is a plan view of an interchangeable price card sign constructed according to a still further modification of the invention.

The interchangeable price card sign, according to this invention, includes a container 10 constructed of a strip of sheet metal. This strip of sheet metal is bent to have a bottom wall 11 and upwardly extending inwardly inclined side walls 12 which continue into inwardly extending top wall portions 13. The inwardly extending top wall portions 13 have their edges spaced from each other forming a top window opening 14 for the container 10. The ends of the top wall portions 13 are connected together by means of S-shaped strips 15. More specifically, strips of sheet metal are bent into an S-shape and have the top loop of their forms engaging on the ends of the top wall portions 13, as clearly shown in Fig. 13. Solder 16 securely attaches the S-shaped members 15 to the ends of the top wall portions 13. The S-shaped strips 15 form the sides of the window opening 14 and are so arranged that the ends of the containers 10 are open. A strip of transparent material 14a closes the window opening 14, and its ends engaging into the strips 15, see Fig. 3.

A plurality of sign units 17 are engaged within the container 10. Each of the sign units com-

prises an inverted U-shaped member 18 having side arms 19 and a top wall 20 spaced slightly beneath the window opening 14. The side walls 19 support a pair of adjacent rollers 21 having shank portions 22 extending through openings 23 in the arms 19. The passage of the shanks 22 through the openings 23 act to rotatively support the rollers 21. The location of the shanks 22 is such that their ends are accessible through openings 24 formed in one of the side walls 12 of the container 10. The alignment of the shanks 22 with the openings 24 permits the engagement of a turning tool 25 through the openings 24 and into the shanks 22 which are of a flattened tubular construction. The turning tool 25 shown in dot and dash lines in Fig. 4 comprises a crank which has a flattened inner end engageable into the shanks 22 so as to facilitate the rotation of the rollers.

A sign strip 26 has its ends mounted on the rollers 21 and its intermediate portion extended against the top face of the top wall 20 of the inverted U-shaped member 18. The sign strip 26 is preferably a length of cloth material provided across one face with digits 27 ranging from 1 to 9, and such other indices as may be necessary for indicating the particular numerical value of an article upon which the price card sign is used. The arrangement of the digits 27 is such that they may be brought successively in position upon the top face of the top wall 20 to be viewed through the window opening 14 as shown in Fig. 1. The ends of the sign strip are imprinted with the words "End of tape reverse" to indicate to the operator that it is necessary to roll the tape in the opposite direction and prevent the disengagement of the tape from the rollers.

Means is provided for securely attaching the ends of the side strip 26 to the shanks 22 of the rollers 21. To accomplish this the ends of the sign strip 26 are engaged about the shanks 22 and small metallic strips 28 are clamped about the ends of the sign strip 27 securely attaching these ends to the shanks 22 (see Fig. 8).

Means is provided for securely attaching the inverted U-shaped members 18 together as a unit to facilitate their insertion into the container 10 through one of the ends. This means comprises tracks 29 into which the bottom ends of the arms 19 are inserted. These tracks 29 are constructed of lengths of sheet metal which are bent into a U-shape to frictionally engage the faces of the arms 19.

A means is provided for closing the ends of the container 10 after the sign units 17 have been inserted therein. This means comprises end walls 30 for the container 10. These side walls 30 are cut to correspond with the shape of the open ends of the container 10 and are provided with inwardly flanges 31. The flanges 31 on the top edges of the end walls 30 frictionally engage into the free loop of the S-shaped strip 15. The inwardly extended flange 31 on the bottom edge of the end walls 30 engage into the container 10 and frictionally bear against the inner face of the bottom wall 11.

Means is provided for supporting the container 10 from a bracket (not shown on the drawings) supported upon a store shelf or other similar surface. This means comprises a U-shaped clip 32 pivotally supported upon a bracket 33. The bracket 33 is welded, braized or in any other manner securely attached to the outside face of the bottom wall 11 of the container 10.

The interchangeable price card sign is used in the following manner: The clip 32 is engaged with a bracket to support the sign in position with relation to an article upon which the sign is used to indicate the numerical price value thereof. The price of the article is brought into view with relation to the window opening in the following manner. Let us assume that the price of the article is 12¢ a lb., as shown in Fig. 1, and that the sign strips must be adjusted to bring this numerical value into view. The crank 25 is passed through the proper opening 24 to engage the shank 22 of the proper roller of the first sign unit. The crank 25 is then rotated to shift the sign strip to bring the digit 1 of the first sign unit into position with the window opening 14. The crank 25 is then withdrawn and inserted into the opening 24 of the next adjacent sign unit. The roller of the sign unit is rotated to bring the digit 2 into position. The crank 25 is again withdrawn and inserted into the proper opening 24 of the third sign unit. The crank is turned to shift the position of the sign strip of this third unit to bring the word "lb." into position with relation to the window opening 14. The positioning of the sign strips is then completed and to change the numerical price value exposed through the window opening 14 the above procedure is again followed.

According to the modification of the invention shown in Figs. 11–16 the construction of the interchangeable price card sign is characterized by a container 10' of a slightly different shape and provided with a means for supporting the same in a position about an article upon which it is used. In this form of the invention the bottom wall 11 of the container 10' has a strip 40 securely attached thereto with its ends projected beyond one side thereof and bent into a loop 41. A rod 42 is adapted to be passed through the loop 41 for suspending the container 10' above a desired article.

The bottom end of the strip 40 pivotally supports an arrow 43 upon a pin 44. The arrow 43 is used to point downwards and is pivotally supported to be moved out of its extended position to free the adjacent side wall 12 to facilitate the rotation of the crank 25 when passed into this side wall.

This form of the invention is also provided with a novel type of sign unit 17' in which each sign unit has a pair of adjacent inverted U-shaped members 18' each of which supports a roller 21. Thus two inverted U-shaped members make up a single sign unit 17' and the sign strip 26 has one of its ends secured to the roller of one of the inverted U-shaped members 18'. The other end of the sign strip 26 is secured to the roller 21 of the adjacent inverted U-shaped member 18. Means is provided for urging the inverted U-shaped members 18' of one sign unit 17' into various extended positions. This means comprises strips of metal 45 which have one of their ends attached to the inside face of the arms 19 of the inverted U-shaped members 18'. The free ends of the strips of metal 45 are bent at right angles to the body thereof and pass through an elongated slot 46 formed in the adjacent inverted U-shaped member 18'. A contraction spring 47 has its ends attached to the ends of the strips projected through the slots 46 and tends to draw the ends of the strip 45 together for the purpose of spreading the inverted U-shaped members 18'.

The bottom ends of the inverted U-shaped members 18' frictionally engage into the tracks

29. The frictional engagement of these members does not exceed the degree required to hold the tracks in position upon the side arms. The springs 47 exert a force greater than the frictional engagement of the arms 19 within the tracks 29 so as to cause the inverted U-shaped members 18' to be spread in spite of their frictional engagement with the tracks 29. These sign units 17' are formed of separate inverted U-shaped members 18' permitting any desired number of sign units to be engaged within the container 10' with the springs exerting a force tending to spreading the sign units to center themselves throughout the entire interior capacity of the container 10' and fill the entire space thereof.

The side wall 12 of the container 10' adjacent one side of the sign units is provided with an elongated slot 24' through which the end of the crank or tool 25 may be inserted to be engaged with the shanks 22 of the rollers 21. In other respects this form of the invention is similar to the previous form and like parts are identified by like reference numerals.

In this form of the invention shown in Fig. 17 the construction of the interchangeable price card sign is similar to that shown in Fig. 1, except for the provision of a slightly different means for supporting the sign in position upon an article upon which the sign is being used to indicate its price. In this form of the invention the container 10 of the sign is provided with a pointed element 50 having a flattened top end 51 securely soldered to the bottom wall 11 of the container 10. In other respects this form of the invention is identical to the previous forms.

While we have illustrated and described the preferred embodiments of our invention, it is to be understood that we do not limit ourselves to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described our invention, what we claim as new, and desire to secure by United States Letters Patent is:

1. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one if its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, and means urging said U-shaped portions apart to locate them centrally within said container.

2. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, and means urging said U-shaped portions apart to locate them centrally within said container, comprising strips of metal having one of their ends attached to one of said inverted U-shaped portions and their free ends bent to be extended through slots formed in the other of said U-shaped portions, and contraction springs operating between said bent ends.

3. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, and means urging said U-shape portions apart to locate them centrally within said container, and means connecting said U-shaped portions together in end alignment to limit said first means to move said portions away from each other only.

4. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a rolled mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, and means urging said U-shaped portions apart to locate them centrally within said container, and means connecting said U-shaped portions together in end alignment to limit said first means to move said portions away from each other only, comprising tracks of U-shaped strips of material engaged upon the free ends of the arms of said U-shaped portions.

5. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, and means urging said U-shaped portions apart to locate them centrally within said container, said side wall opening being in the form of an elongated slot so that the said ends of said rollers will be aligned with the opening in all positions of said portions within said container.

6. An interchangeable sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermedi-

ate arms of said U-shaped portions to be viewable through said top window opening, and means controlled by a contraction spring urging said U-shaped portions apart to locate them centrally within said container.

7. An interchangeable price card sign having a container formed with a top window opening and an opening in a side wall thereof and enclosing a sign unit, said sign unit comprising a pair of adjacent inverted U-shaped portions, a roller mounted between the side arms of each of said U-shaped portions and each having one of its ends aligned with said side wall opening to be engaged by a turning tool, a sign strip having its ends mounted on said rollers and its intermediate portion extended across the face of said intermediate arms of said U-shaped portions to be viewable through said top window opening, strips of metal having one of their ends attached to the side arms of said U-shaped portions, said strips of metal having their free ends directed towards the other U-shaped portion and bent at right angles thereto and projected through elongated slots formed in said U-shaped portions, and spring operating between the free ends of said strips of metal to draw said ends together and spread said U-shaped portions to locate them centrally within said container.

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