Feb. 20, 1934. W. E. SHOEMAKER 1,948,191

PRICE INDICATOR

Filed Oct. 14, 1933 2 Sheets-Sheet 1

Fig. 1.

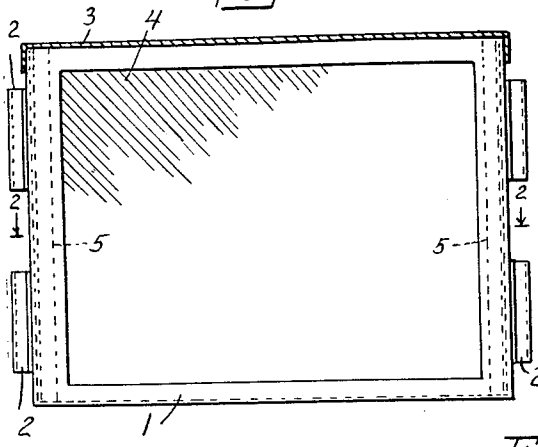


Fig. 3.

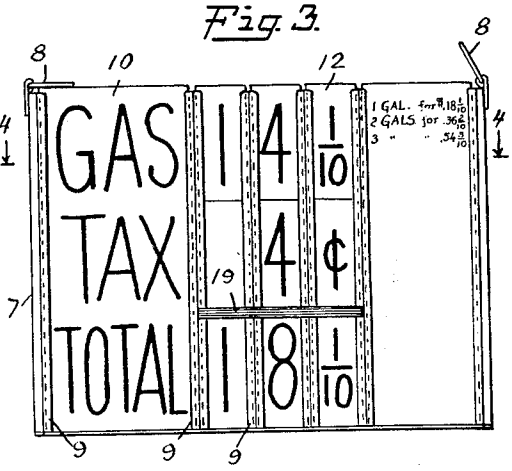


Fig. 2.

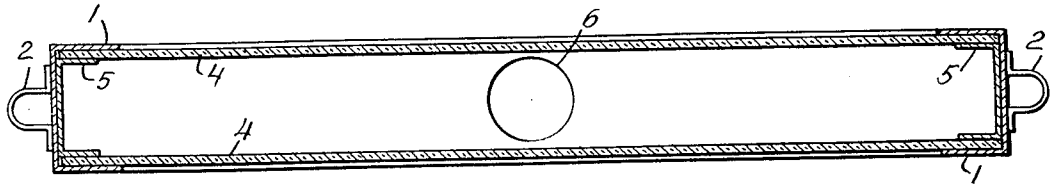


Fig. 4.

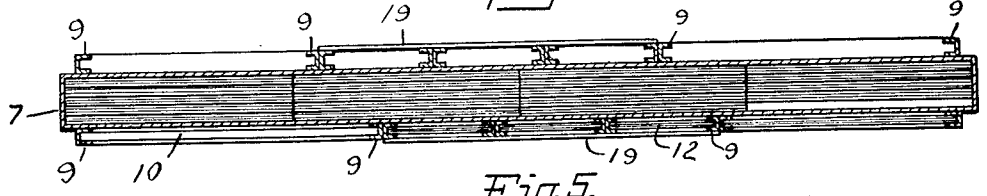
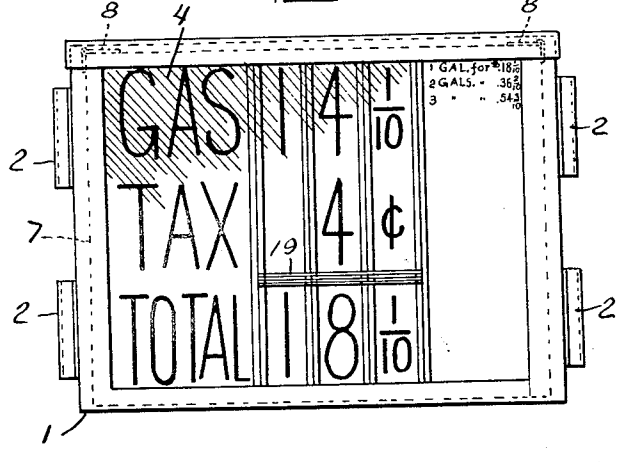


Fig. 5.



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Fig. 7.

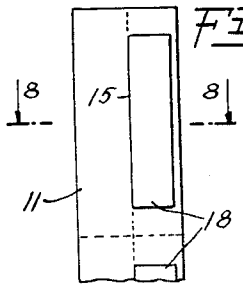


Fig. 8.

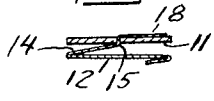
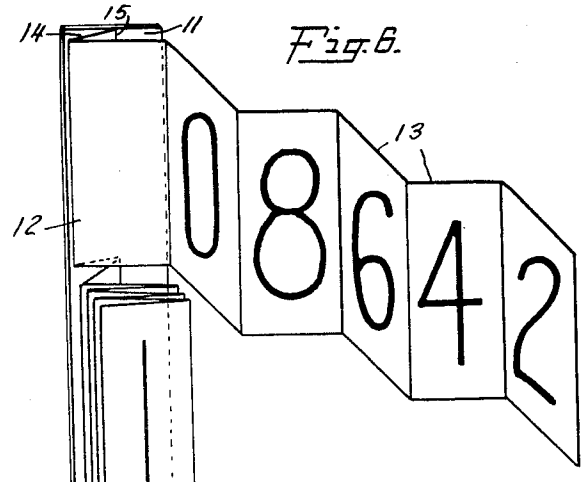


Fig. 6.



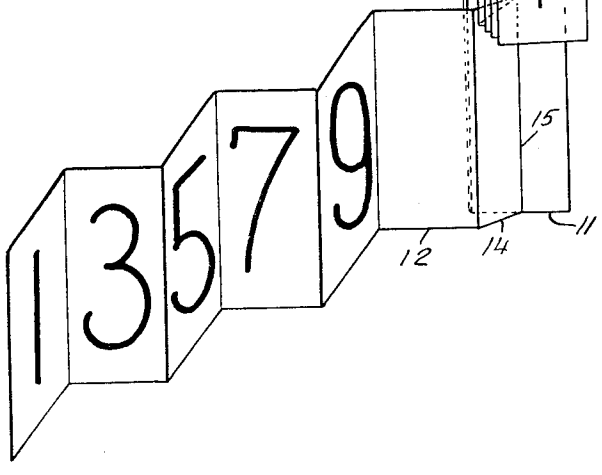
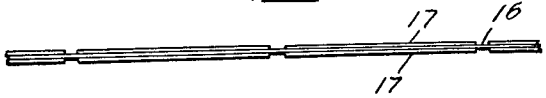


Fig. 10.

1 GAL.	for	$.18 1/10
2 GALS.	"	.36 2/10
3	"	.54 3/10
4	"	.72 4/10
5	"	.90 5/10
6	"	1.08 6/10
7	"	1.26 7/10
8	"	1.44 8/10
9	"	1.62 9/10
10	"	1.81
11	"	1.99 1/10
12	"	2.17 2/10
13	"	2.35 3/10
14	"	2.53 4/10
15	"	2.71 5/10
16	"	2.89 6/10
17	"	3.07 7/10
18	"	3.25 8/10
19	"	3.43 9/10
20	"	3.62

Fig. 9.



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UNITED STATES PATENT OFFICE

1,948,191

PRICE INDICATOR

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Application October 14, 1933. Serial No. 693,611

12 Claims. (Cl. 40—64)

This invention relates to improvements in devices adapted for indicating or displaying the price of articles or merchandise that are subject to frequent and extensive price fluctuations. The improved price indicator of the present invention is particularly adapted for use in displaying the price of merchandise such as gasoline or similar articles which are heavily taxed and where it is desirable, and in some localities required by law, that the total unit price both exclusive and inclusive of the tax, be prominently displayed wherever such merchandise are sold or dispensed.

In such devices, because of the fact that the tax as well as the unit price is subject to variation, an enormous variety of different numerical combinations are required to cover the normal working range. Further, such devices are frequently handled by unskilled operators and are so displayed as to be subjected to all kinds of weather conditions. It is an object of the present invention to provide a price indicator which is sufficiently flexible to provide for the enormous variety of different numerical combinations that are required to cover the normal working range and which employs a minimum number of separate pieces that might be lost, destroyed or mislaid but which at the same time is of a simple, cheap and rugged construction.

The invention will be readily understood from the description of the device illustrated in the drawings which shows one form of price indicator embodying the invention. However, it will be understood that this illustration is given merely as an exemplification of the invention and that the invention is not limited thereto.

Referring to the drawings,

Fig. 1 is an elevation partly in section of a casing adapted to receive the supporting frame or tray assembly shown in Fig. 3;

Fig. 2 is a sectional plan view of the casing shown in Fig. 1. The section is taken along the line 2—2;

Fig. 3 is an elevation of the supporting frame or tray assembly;

Fig. 4 is a sectional plan view of the supporting frame or tray assembly shown in Fig. 3. The section is taken along line 4—4;

Fig. 5 is an elevation of the assembled indicator showing the supporting frame or tray assembly in place within the casing;

Fig. 6 is an enlarged isometric view of one of the price indicating units consisting of a base card and a plurality of folded indicating strips;

Fig. 7 is a fragmentary elevation showing a detail of one suitable method for connecting one of the indicating strips with a base card;

Fig. 8 is a sectional view of the detail shown in Fig. 7 taken along the line 8—8;

Fig. 9 is an enlarged fragmentary plan view showing in detail a desirable form of construction for one of the folding indicating strips; and

Fig. 10 is an isometric elevation showing the arrangement of one of the folding total-indicating strips.

The casing shown in Figs. 1 and 2 of the drawings consists of a main frame member 1 provided with suitable mounting brackets 2 and a cover plate 3. Apertures are provided in the opposite faces of the main frame member and sheets of glass or other transparent material 4 are firmly held in place between the inner surface of the main frame member and the channels 5 which at their backs are secured firmly to the main frame member by any suitable means; for example, by spot welding. The bottom of the casing is preferably provided with an aperture 6 to facilitate removal of the frame or tray assembly from the casing.

The tray assembly shown in Figs. 3 and 4 comprises a long, narrow and deep tray-7 open at its upper end. It is preferably provided at the upper edges with hinged grip rings 8 to facilitate inserting and withdrawing the assembly from the casing. On the outer surfaces of the opposite faces of the tray are secured channel members 9 which are arranged to form a plurality of vertical slots open at their upper ends. The bottom of the tray is extended to close the bottom of the vertical slots.

In the particular device illustrated in the drawings five slots are arranged on each of the two opposite faces. The three slots near the central part of the tray are relatively narrow and of the same width while the end slots are somewhat wider. In the left-hand slot is inserted a card 10 bearing suitable legends identifying the items the unit price of which is to be indicated, as shown in Figs. 3 and 4.

In each of the three narrow central slots is inserted an assembly, as shown in Fig. 6, comprising a base card 11 and a plurality of folded indicator strips 12, each of the latter strips being folded into sections of substantially the same width as the base card. The flat display sections of the indicating strips are provided with a single digit, fraction or other character of sufficient width to be clearly visible between the inner edges of the channel members forming the retaining slot. The distance of the outer flange

of the channel members from the face of the tray is so proportioned as to firmly hold the base card and the tightly folded indicating strips.

In the event that the numerals or characters are placed only on one face of the flat display sections 13 of the indicating strips, the end of the indicating strip may be permanently fastened to an edge of the base card. However, in order to provide sufficient sections to accommodate each of the Arabic numerals using only one face of each of the flat display sections of the indicating strip, an excessively long indicating strip would be required. An excessively long indicating strip is undesirable as it would be difficult to handle and easily torn. On the other hand when numerals or characters are provided on both faces of each of the flat display sections of an indicating strip, the indicating strip cannot be folded so as to display more than half of the numerals when the end of the indicating strip is fastened at the edge of the base card.

Accordingly, in order to permit an indicating strip and base card to be assembled so as to display either face of each of the flat display sections, a short joining section 14 of one half the width of the display sections is provided at the end of the indicating strip which is attached to the base card. This joining section is flexibly secured at one edge along the center line of the base card and at the opposite edge to the first display section of the indicating strip. With this arrangement, when the joining section 14 is folded to the left as shown in Fig. 6, the indicating strip may be folded so as to display one face of any one of the display sections. When the joining section 14 is folded to the right along the center line 15, the indicating strip may be folded so as to display the opposite side of any one of the flat display sections.

The indicating strips may be of any suitable construction; for example, heavy paper folded so that each of the display sections is slightly narrower than the next display section nearer the base card to facilitate folding. One advantageous form of indicating strip is shown in detail in Fig. 9. It consists of a fabric base 16 with flat rigid sheets of heavy paper, cardboard, bakelite or other suitable material glued, cemented or otherwise attached to both sides. In this construction the distance between the consecutive pairs of rigid sheets should be made great enough to permit several display sections to be folded between two adjacent sections.

One convenient method of fastening the indicating strips to the base card is illustrated in Figs. 7 and 8. In the joint there shown the end of the indicating strip is reduced in breadth to form a flap 18 which is inserted through a slot extending along the center line of the base card. The flap 18 is then bent over and glued or otherwise fastened to the back of the base card.

One vertical slot, at the extreme right of the supporting frame as shown in Fig. 5, is provided with a total-indicating strip. One such total-indicating strip is illustrated diagrammatically in Fig. 10. The indicating strip shown in Fig. 10 consists of a relatively long sheet folded to provide five flat sections bearing ten faces. Upon each face is printed a table listing the total prices, corresponding to a given unit price, for quantities of from one to twenty units. One such total-indicating strip advantageously may be provided for each even unit price in the normal working range. In such an arrangement the ten faces of a total-indicating strip advantageously may bear ten tables including a table for the given even unit price and a separate similar table for the same even unit price plus each of a number of fractions. For example, one total-indicating strip may contain ten tables, one on each face, the ten tables corresponding to unit prices of $18¢$, $18\frac{1}{10}¢$, $18\frac{2}{10}¢$, $18\frac{3}{10}¢$ etc. to $18\frac{9}{10}¢$. A separate total-indicating strip advantageously may be provided for each even unit price and the same even unit price plus the various fractions throughout the normal working range. Storage space for the additional total-indicating strips covering the normal working range is provided in the central portion of the supporting tray.

Where such a price indicator is used for the purpose of showing the total unit price as the sum of its various component parts, a bar 19 extending across the three center slots may be permanently fastened to the outer edge of the channels forming the central slots, as shown in Fig. 3. Such a bar advantageously may bear a contrasting color so as to direct attention to the fact that the figure below it represents the sum of the component parts indicated above.

In the particular device illustrated in the drawings the base cards and indicating strip assemblies, in the narrow slots which are positioned first and second from the left as shown in Fig. 3, are identical, each indicating strip being provided with one or more blank display surfaces and a separate display surface bearing one of each of the Arabic numerals. The display surfaces of the assembly mounted in the narrow slot positioned at the right, as shown in Fig. 3, bear one of the fractions from $\frac{1}{10}$ to $\frac{9}{10}$, inclusive. This indicating strip also may include additional blank display surfaces or display surfaces bearing any other desired character, such as ¢. It will be apparent that in the device shown the three assemblies, mounted in the three central narrow slots, provide for the indication of any unit price combination varying from $\frac{1}{10}¢$ to $99\frac{9}{10}¢$.

It will of course be appreciated that any number of vertical slots and indicating assemblies may be provided if it is desired to provide for a greater price range. Also the number of items or component parts may be varied. Similarly, if desired, the indicating strips may be folded on a horizontal axis, the joining section in this case being one half the height of the display sections. Many other modifications may be made as will be apparent without departing from the spirit of the invention.

I claim:

1. In an apparatus of the class described, the combination of a base card, and a plurality of indicating strips attached to said base card, each of said indicating strips being folded transversely at a plurality of points spaced apart at distances substantially less than the width of the indicating strips, to form a plurality of rectangular panels of substantially equal width bearing characters on each side thereof, a joining panel of half the width of the other panels adjacent the attached end, each of said indicating strips being flexibly attached to the base card along a line extending substantially centrally thereof, with the attached end of the indicating strips disposed in a vertical position, whereby the longitudinally folded edges of the rectangular panels of said indicating strips are held in a vertical position.

2. In an apparatus of the class described, the combination of a supporting frame, a base card removable from the supporting frame, and a plurality of indicating strips attached to the base

card, each of said indicating strips being folded transversely at a plurality of points spaced apart at distances substantially less than the width of the indicating strips, to form a plurality of rectangular panels of substantially equal width bearing characters on each side thereof, and a joining panel of half the width of the other panels adjacent the attached end, each of said indicating strips being flexibly attached to the base card with the attached end of the indicating strips disposed in a vertical position, whereby the longitudinally folded edges of the rectangular panels of said indicating strips are held in a vertical position, and means attached to the supporting frame adapted to firmly hold said base card and the attached, closely-folded indicating strips.

3. In an apparatus of the class described, the combination of a base card, and an indicating strip attached to said base card, said indicating strip being folded transversely at a plurality of points spaced apart at distances substantially less than the width of the indicating strip, to form a plurality of rectangular panels of substantially equal width bearing characters on each side thereof, and a joining panel of half the width of the other panels adjacent the attached end, said indicating strip being flexibly attached to the base card along a line extending substantially centrally thereof with the attached end of the indicating strip disposed in a vertical position, whereby the longitudinally folded edges of said rectangular panels of said indicating strip are held in a vertical position.

4. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a longitudinal slot open at one end, and an indicating strip folded to provide a plurality of flat display sections of substantially the same width and having character-bearing surfaces thereon, said channels being of such width and so positioned relative to the thickness of the folded indicating strip and to the width of the sections of the folded indicating strip respectively, as to firmly hold the indicating strip when closely folded and inserted in the said slot.

5. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of longitudinal slots open at one end, and a plurality of indicating strips each folded to provide a plurality of flat display sections having character-bearing surfaces thereon, the flat sections of each indicating strip being of substantially the same width, said channels being so positioned and of such width relative to the width of the sections of the folded indicating strips and the thickness of the folded indicating strips respectively, as to firmly hold one of the closely folded indicating strips when inserted in each of said slots.

6. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a longitudinal slot open at one end, a base card and a plurality of indicating strips each flexibly secured at one end to the base card and folded to provide a plurality of flat display sections having character-bearing surfaces thereon, the flat sections of each indicating strip being of substantially the same width as the base card, said channels being so positioned and of such width relative to the width of the folded indicating strips and the thickness of the folded indicating strips and base card respectively, as to firmly hold the base cards and the closely folded indicating strips when inserted in said slot.

7. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a longitudinal slot open at one end, a base card and an indicating strip, said indicating strip being folded to provide a plurality of flat display sections having character-bearing surfaces on each side thereof, said sections being of substantially the same width as the base strip, and a joining section of one half the width of the flat display sections, said joining section being attached along one edge to one end of the indicating strip and flexibly secured at the opposite edge to the base card along the center line of the base card, said channels being so positioned and of such width relative to the width and the thickness, respectively, of the base card and the folded indicating strip, as to firmly hold the base card and the closely folded indicating strip when inserted in said slot.

8. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of vertical slots each open at one end, a base card in each of said slots and of substantially the same width as said slots, a plurality of folded indicating strips attached at one end to each of the base cards and spaced vertically along the base card, each indicating strip being folded to provide a plurality of flat display sections, the display sections of the indicating strip attached to any one base card being of substantially the same width as said base card, said channels being of such width relative to the thickness of the base card and folded indicating strips as to firmly hold the base card and the closely folded indicating strip when inserted in said slots.

9. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of vertical slots each open at one end, a base card in each of said slots and of substantially the same width as said slots, a plurality of folded indicating strips attached at one end to each of the base cards and spaced vertically along the base card, each indicating strip being folded to provide a plurality of flat display sections, the display sections of the indicating strip attached to any one base card being of substantially the same width as said base card, the surface of any one of said display sections bearing only a single digit, fraction or character, said channels being of such width relative to the thickness of the base card and folded indicating strips as to firmly hold the base card and the closely folded indicating strip when inserted in said slots.

10. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of vertical slots each open at one end, a base card in each of said slots and of substantially the same width as said slots, a plurality of folded indicating strips attached to each of the base cards and spaced vertically along the base card, each indicating strip being folded to provide a plurality of flat display sections of substantially the same width as the base card to which it is attached and a joining section attached at one edge to one end of the indicating strip and flexibly secured at

its opposite edge along the center line of the base card, said display sections having character-bearing surfaces on each side thereof, said channels being of such width relative to the thickness of the base cards and folded indicating strips as to firmly hold the base cards and closely folded indicating strips when inserted in said slots.

11. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of vertical slots each open at one end, a base card in each of said slots and of substantially the same width as said slots, a plurality of folded indicating strips attached to each of the base cards and spaced vertically along the base card, each indicating strip being folded to provide a plurality of flat display sections of substantially the same width as the base card to which it is attached and a joining section attached at one edge to one end of the indicating strip and flexibly secured at its opposite edge along the center line of the base card, said display sections bearing a single digit, fraction or character on each side thereof, said channels being of such width relative to the thickness of the base cards and folded indicating strips as to firmly hold the base cards and closely folded indicating strips when inserted in said slots.

12. In apparatus of the class described, the combination of a casing provided with a transparent section in at least one side thereof, a supporting frame proportioned to snugly fit within said casing and removably disposed therein, a plurality of channels attached to an outer surface of said supporting frame and arranged to form a plurality of retaining slots open at one end and positioned to register with the transparent section of said casing, and a plurality of indicating strips each folded to provide a plurality of flat display sections of substantially the same width as the width of said slots one of said folded indicating strips being firmly retained in each of said slots.

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DISCLAIMER

1,948,191.—*William E. Shoemaker*, Freeport, N. Y. PRICE INDICATOR. Patent dated February 20, 1934. Disclaimer filed September 20, 1935, by the assignee, *Sinclair Refining Company*.

Hereby enters this disclaimer to claims 4, 5, and 12 of said Letters Patent, which are in the following words, to wit:

"4. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a longitudinal slot open at one end, and an indicating strip folded to provide a plurality of flat display sections of substantially the same width and having character-bearing surfaces thereon, said channels being of such width and so positioned relative to the thickness of the folded indicating strip and to the width of the sections of the folded indicating strip respectively, as to firmly hold the indicating strip when closely folded and inserted in the said slot.

"5. In apparatus of the class described, the combination of a supporting frame having channels secured to an outer surface thereof, said channels being arranged to form a plurality of longitudinal slots open at one end, and a plurality of indicating strips each folded to provide a plurality of flat display sections having character-bearing surfaces thereon, the flat sections of each indicating strip being of substantially the same width, said channels being so positioned and of such width relative to the width of the sections of the folded indicating strips and the thickness of the folded indicating strips respectively, as to firmly hold one of the closely folded indicating strips when inserted in each of said slots."

"12. In apparatus of the class described, the combination of a casing provided with a transparent section in at least one side thereof, a supporting frame proportioned to snugly fit within said casing and removably disposed therein, a plurality of channels attached to an outer surface of said supporting frame and arranged to form a plurality of retaining slots open at one end and positioned to register with the transparent section of said casing, and a plurality of indicating strips each folded to provide a plurality of flat display sections of substantially the same width as the width of said slots one of said folded indicating strips being firmly retained in each of said slots."

[*Official Gazette October 15, 1935.*]