June 30, 1942. T. MUNGEN 2,288,570

SIGNBOARD

Filed Aug. 4, 1939 2 Sheets-Sheet 1

FIG. 1

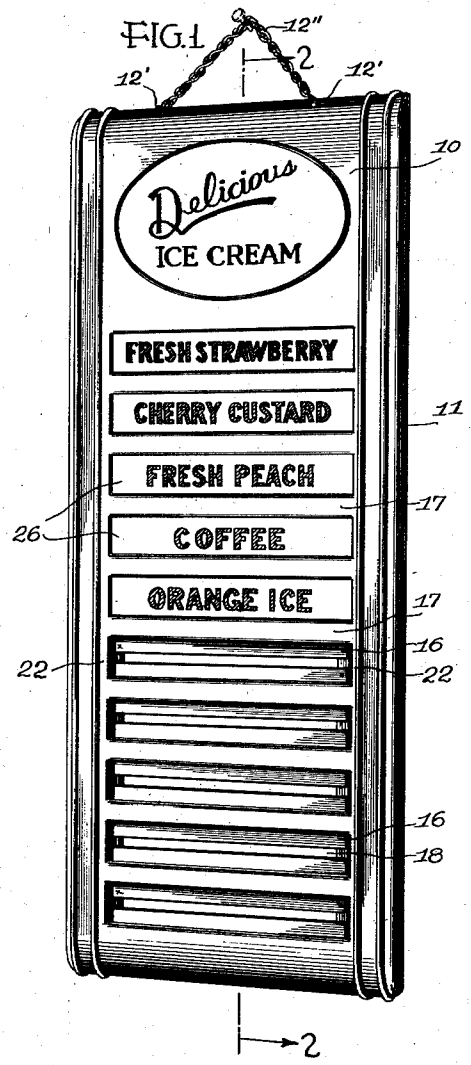


FIG. 2

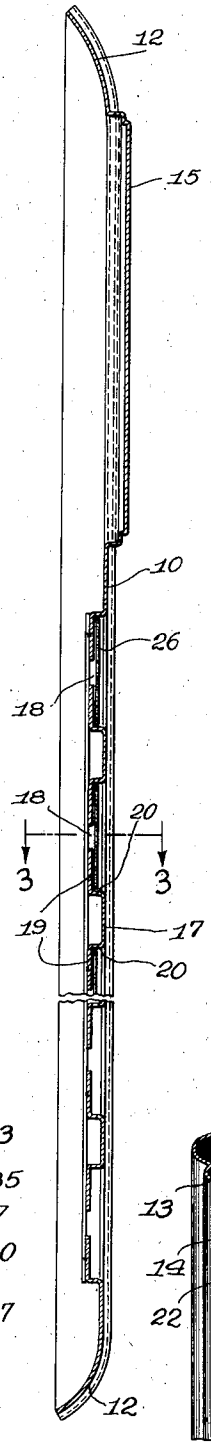


FIG. 5

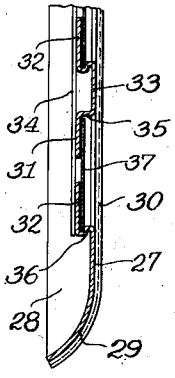


FIG. 3

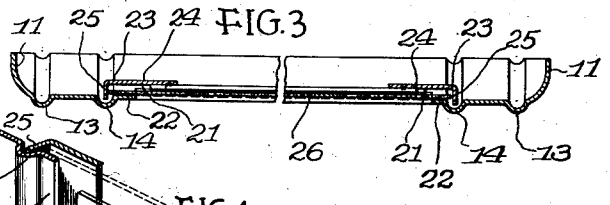
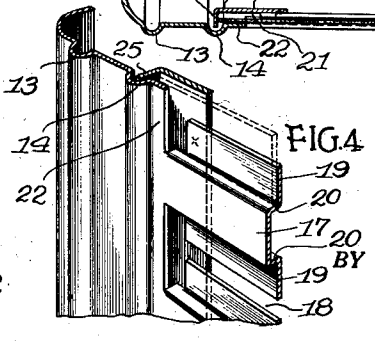


FIG. 4



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SIGNBOARD

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FIG.6

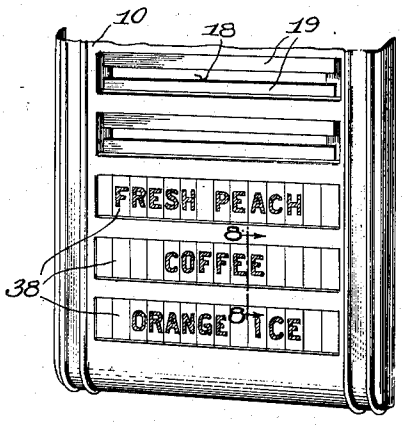


FIG.7

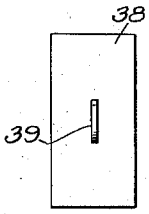


FIG.8

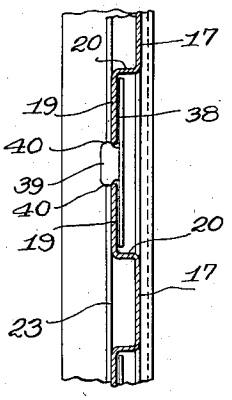


FIG.9

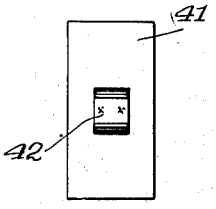


FIG.10

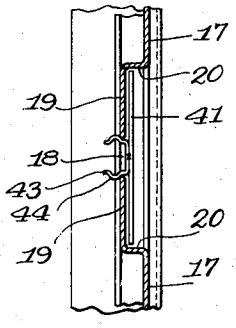


FIG.11

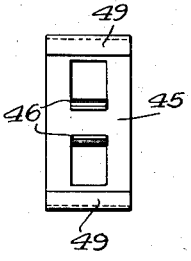
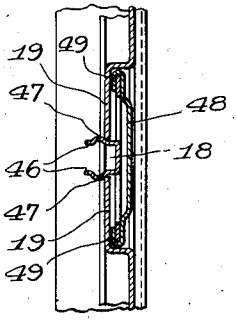


FIG.12



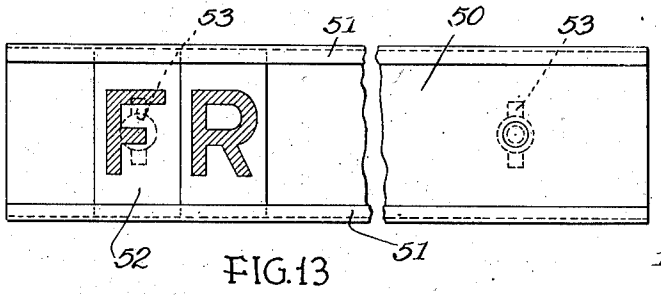


FIG.13

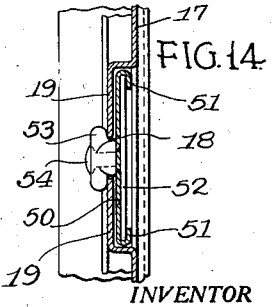


FIG.14

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Patented June 30, 1942

2,288,570

UNITED STATES PATENT OFFICE

2,288,570

SIGNBOARD

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Application August 4, 1939, Serial No. 288,284

5 Claims. (Cl. 40—63)

My invention relates to a sign board of the type which comprises a panel provided with means for interchangeably receiving plates or strips of card board or the like bearing different kinds of signs which may indicate different flavors of ice-creams.

It is the object of the invention to create a sign board of the indicated type which is extremely simple in construction, which can be manufactured in a very simple and inexpensive way, which is strong, has a pleasant appearance and which allows the easy insertion and removal of the interchangeable signs.

This object is attained outstandingly thereby that the main element of the sign board consists of a one-piece panel having along its outer margins integral rearwardly directed flanges and being provided with a plurality of rearwardly offset sections in its central main portion, which sections form likewise an integral part of the panel and serve for the reception of the interchangeable signs. The formation of those offset sections is such that the signs may be inserted from the front side of the board so as to avoid the inconvenience of having to remove the sign board from its support and to turn it around when the signs shall be changed.

A further object of the invention has to do with such a formation of the sign plates or strips and of special holding means thereof which make them especially adapted for the fastening to and removal from the new sign board or which allow to compose words from single-letter signs.

Other objects and features of the invention will become apparent from the following description of some embodiments of the invention when read in connection with the attached drawings. In the drawings:

Figure 1 is a perspective front view of a sign board made in accordance with the invention;

Figure 2 is a vertical section through the same sign board along line 2—2 of Figure 1 on an enlarged scale;

Figure 3 is a horizontal section along line 3—3 of Figure 2;

Figure 4 is a fragmentary perspective view of a part of the sign board shown in Figure 1 on an enlarged scale;

Figure 5 is a fragmentary section corresponding to Figure 2 of slightly modified embodiment of the invention;

Figure 6 is a fragmentary view of the lower end of the same sign board shown in Figure 1 with a different type of interchangeable signs;

Figure 7 is an enlarged view of the rear side of one embodiment of the sign as shown in Figure 6;

Figure 8 shows a section on an enlarged scale along line 8—8 of Figure 6;

Figures 9 and 10 are views similar to those of Figures 7 and 8 but of a further modified form of the interchangeable signs;

Figures 11 and 12 are also views corresponding to those of Figures 7 and 8 but showing still another modification of the interchangeable sign;

Figure 13 shows an adaptor for interchangeable signs which may be inserted into the previously shown sign board; and

Figure 14 is a section similar to Figure 8 but with an adaptor and with interchangeable signs according to Figure 13.

The main element of the sign board consists of a panel 10 which is preferably stamped from sheet metal. Along its vertical edges, this panel is provided with rearwardly extending flanges 11 the free margins of which extend substantially vertical to the main body of the panel 10 and which merge into said main body by curved portions of relatively small radii when compared with the curves along the horizontal edges to be described in the following. The horizontal marginal portions 12 of the panel are likewise bent to the rear, yet on a very wide curve so that the free edges reach the same plane as the edges of the side flanges 11. The outer parts of the portions 12 include obtuse angles with the main body of the panel 10. By this formation the long vertical edges of the panel are strongly reinforced and the shorter horizontal edges are sufficiently reinforced also. A further reinforcement of the panel 10 in the direction of its longer extent is attained by two outwardly projecting beadings 13 and 14 which are arranged near each of the vertical side edges of the panel and which are spaced from and run parallel to said edges and each other. These beadings 13 and 14 afford simultaneously an ornamental effect.

The upper region of the main body of the panel 10 is provided with an outwardly projecting portion 15 which may carry a permanent inscription or sign. The upper marginal portion 12 of the sign is provided with two holes 12' which are spaced from each other and which serve for the fastening of the ends of a chain 12'' by which chain the sign board may be hung up to a nail in a wall or the like. The lower portion of the panel 10 shows between the inner beadings 14 horizontal elongated depressions 16 which are spaced from each other by portions 17

of the panel. These depressed portions show a central horizontal slot 18. On either side of the slot 18, the recessed portion shows a wide section 19 which is spaced from but substantially parallel to the plane of the main body of the panel 10 and which is connected to the main body by narrow sections 20 running substantially vertical to said plane. The lateral ends of the section 19 are cut away at 21 as to leave a free space between them and the adjoining portions 22 of the main body of the panel 10. It will be noted that the portions 17 and 20 form together an inwardly facing channel member and are additionally reinforced by the adjoining offset portions 19.

On each lateral end of the depressions, a member 23 angle shaped in cross section is arranged. The one wider arm 24 of these members underlies the offset sections 19 and is fastened at least to some of them, as by spotwelding. The other arm 25 of the angle member 23 extends outwardly and enters the interior of the beading 14. These members 23 form additional reinforcements of the sign board, they keep the offset portions 19 in line and the outwardly directed arms 25 serve as abutments for the interchangeable signs as will be described in the following.

The interchangeable signs as shown in Figures 1 to 4 comprise elongated strips 26 of web material such as somewhat resilient cardboard or the like. The width of the strips is substantially equal to the vertical width of the depressed portion 16 between the inwardly directed wall portions 20 thereof. The length of the strips 26 is somewhat greater than the distance between the lateral portions 22 of the panel 10 and preferably about equal to the distance between the two lateral abutments formed by the arms 25 of both strips 23. For fastening such a sign strip 26, its one end is slid into the space between the portion 20 of the panel and the arm 24 of the angle-shaped member 23 until it abuts the other arm 25 of the member 23. The middle portion of the strip 26 is then outwardly bent until its other end can be slid into the space between the panel portion 20 and the arm 24 of the other member 23 on the opposite side of the structure. The strip is then released and, owing to its resiliency, will resume its substantially flat form and thereby occupy over its entire length the respective depressed section 16. The removal of a sign for the purpose of exchange is effected in the opposite way by first gripping behind the middle portion of the strip, bending it outwardly and then drawing first the open end and then the other end out of engagement with the side portions 20 of the panel 10.

The sign board shown in Figures 1 to 4 may advantageously be manufactured in the following manner. A rectangular piece of appropriate size is cut from sheet metal stock. By a trimming operation, the corners of this piece are slightly rounded off and at the same time the holes 12' are punched out. The trimming of the corners at each smaller side of the piece may be effected separately by one and the same cutting tools. The next step involves the bending of the upper and lower marginal portions 12, the extrusion of the beadings 13 and 14 and the pressing out of the portion 15. These different steps are performed simultaneously in a die-press by a correspondingly shaped set of dies. Hereupon the slots 18, 21 which have the form of a lying I are punched out whereby one set of cutting tools preferably punches out at first each second slot and thereupon after having correspondingly changed the relatively position between such tools and the panel the remaining slots are cut out. By a further set of dies the vertical flanges 11 are bent off and simultaneously the portions 16, 20 are depressed. The panel 10 has now its final shape, it remains only to fasten the separately manufactured members 23 to it and to provide the desired covering or finish, permanent inscriptions and the chain 12''.

Ordinarily the resiliency of the strips 26 as shown in Figures 1 to 3 will be sufficient to keep them flat against the depressed portions of the panel. However, it may sometimes be desirable to additionally insure the proper location and form of those strips. This may be done by the arrangement shown in Figure 5. The form of the panel 27 of this embodiment, of its marginal portions 28 and 29, its beadings 30, its offset portions 31, 32, of the panel portions 33 between the offset portions and of the reinforcing angle member 34 may be the same as the form of the corresponding members of the embodiment shown in Figures 1–4. Also one of the portions 35 connecting the offset portions 31 with the intermediate panel portions 33 corresponds to the formation of the portions 23 of the other embodiment. However, the other connection between the offset portion 32 and the main portion 33 of the panel 27 is differently shaped since it is provided with a channel-formed part 36 facing toward the middle of the offset portion. For this embodiment the sign strips 37 are slightly wider than the width of the outward opening of the depressed portions. These strips 37 are inserted substantially in the same manner as described for the first embodiment but they are finally additionally pushed into said channel 36 which positively insures their straight position.

According to Figures 6, 7 and 8 individual interchangeable signs 38 are employed. The main body of these signs 38 is in the form of a small plate having the height of about somewhat less than the width of the depressions of the sign board. This plate 38 is provided on its rear side with some kind of a knob 39 having upwardly and downwardly projecting portions 40 which are slightly spaced from the rear surface of the main body of the plate 38. These signs are put in place by inserting the knobs 39 through the slots 18 of the sign board in holding the signs at an angular position with respect to such slot and by then turning them to their upright position whereby the projections 40 of the knob 39 engage the margins of the portion 19 of the panel and hold the sign in place. As to allow the turning of the individual signs, their height has either to be less than the distance between the portions 20 of each depression or the portion 38 of the sign may be flexible so that their margins or corners may be bent outwardly and overlie the raised portions 17 of the panel or of neighboring signs and will then snap back into the normal position after the sign has been turned into the upright position. These individual signs may be made from any appropraite material, for instance from metal by die casting, from rubber, from sheet metal in which case the knob 39 would preferably be welded on as a separately manufactured piece, or from artificial resin. An advantage of such individual signs is of course that they allow the formation of whatever inscriptions the owner of the sign board might desire.

The modification of individual signs as shown in Figures 9 and 10 is very similar to the signs shown in Figures 7 and 8. The difference con-

sists only therein that in Figures 9 and 10 the sign plate 41 is connected with the central portion of a spring clip 42 having rearwardly extending arms 43. The arms 43 show upwardly and downwardly projecting portions 44 which will snap behind the edges of the slot 18. These signs do not require any turning and can therefor under all circumstance be of rigid material and fill the entire vertical width between the portions 20 of the sign board. These signs may be made from the same kind of materials as above indicated for the signs shown in Figures 7 and 8. Moreover the signs shown in Figures 9, 10 may be in the form of a strip filling the entire length of each depression of the panel in which case they would advantageously be provided with more than one spring clip and would of course show an inscription which surpasses a single letter.

In the embodiment shown in Figures 11 and 12, arms 46 providing a similar kind of spring clip as shown in Figures 9 and 10 are formed together with their projections 47 from a backing plate 45 which carries the sign plate 48 proper. The plate 45 may be made from a cheap material and the cover plate 48 of a better material such as stainless steel, aluminum, Celluloid or the like. The margins are folded at 49 around the margins of the backing plate 45 and fastened thereto. Here again, as in the case of Figures 9 and 10, the structure might also take the form of a strip filling a greater part or the entire length of an individual depression of the sign board.

The adaptor shown in Figures 13 and 14 comprises a strip of rigid material the length and height of which are about equal to the length and width of an individual depression of the sign board. The horizontal edges of this strip 50 are bent outwardly and then toward the middle of the strip at 51 as to form oppositely facing narrow channels. Into these channels may be slid from the ends of the strip individual flat sign plates 52 or coherent sign strips. One or more knobs 53 are rotatably fastened to the rear side of the member 50 as by pivots 54. These knobs are of elongated shape in plan view similar to the knobs of Figures 7 and 8. After the adaptor 50 has been provided with the desired inscription, the knobs 53 are turned so that they extend in the longitudinal direction of the adaptor in which position they may enter through the slot 18 of the sign board. After having passed through that slot, the knobs 53 are turned about 90° and their projecting parts grip behind the edges of the portions 19 of the sign board thereby holding the adaptor firmly in place. If this adaptor is made of resilient material then its length might be about equal to the length of the strips shown in Figures 1 to 3 and it might be slipped into place by bending its middle portion in the same manner as those previously described strips. The middle portion in such a case might be additionally secured in place by one single rotatable knob.

The application is not restricted to the embodiments shown in the drawings and described in the specification, but there are other embodiments which any one skilled in the art could easily devise. Such modifications are intended to be covered by the appended claims.

What I claim is:

1. In a sign board, a one-piece plate member, a plurality of elongated sections of the central main portion of said member being rearwardly offset, these offset sections forming an integral part of said member, and each of said sections being slotted in its longitudinal direction intermediate its longitudinal margins so as to allow parts of interchangeable signs to extend through the slots and to engage the rear of said elongated sections adjacent to said slots, the connection between the main portion of said member and each of said offset sections being interrupted along at least one of the short ends of said sections, so as to allow the entrance of one end of another type of interchangeable web-shaped sign from the front side of the board, means along the margins of said board as to keep the board and the offset sections therein in spaced relation to the surface of a member such as a wall to which the board is adapted to be fastened.

2. In a sign board, a one-piece plate member, a plurality of elongated sections of the central main portion of said member being offset to the rear, these offset sections forming an integral part of said member and being spaced from each other and from the margins of said member, the connection between the main portion of said member and each of said offset sections being interrupted at least along one of the short ends of said sections so as to allow the entrance of one end of an interchangeable web-shaped sign, and an abutment forming a part of the sign board, said abutment being arranged near one end of the respective offset section but spaced in the direction away from the middle of the offset section, from the interrupted connection between said offset section and the main body of the member.

3. In a sign board according to claim 2, said abutment being formed by one arm of an angle formed member the other arm of which underlies and is fastened to said offset section.

4. In a sign board according to claim 2, the abutments at the corresponding ends of a plurality of signs being formed by one continuous strip which is fastened to said member.

5. In a sign board according to claim 2, said abutments at the corresponding ends of the offset sections being formed by one common strip angle shaped in cross section, the one arm of said strip being fastened to the rear face of, at least some of said offset sections and the other arm forming the abutments and extending into an outwardly directed reinforcing beading of the main body of said member.

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