March 10, 1953 H. A. SMITHSON ET AL 2,630,643

SUPPORT FOR SIGN CHARACTERS

Filed Sept. 9, 1949

FIG. 2

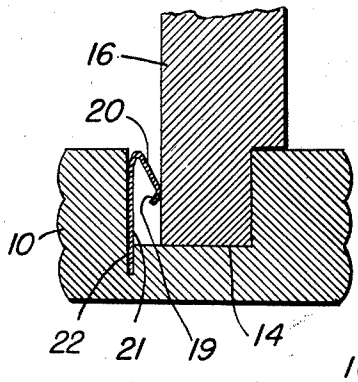



FIG. 3

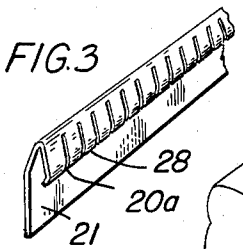
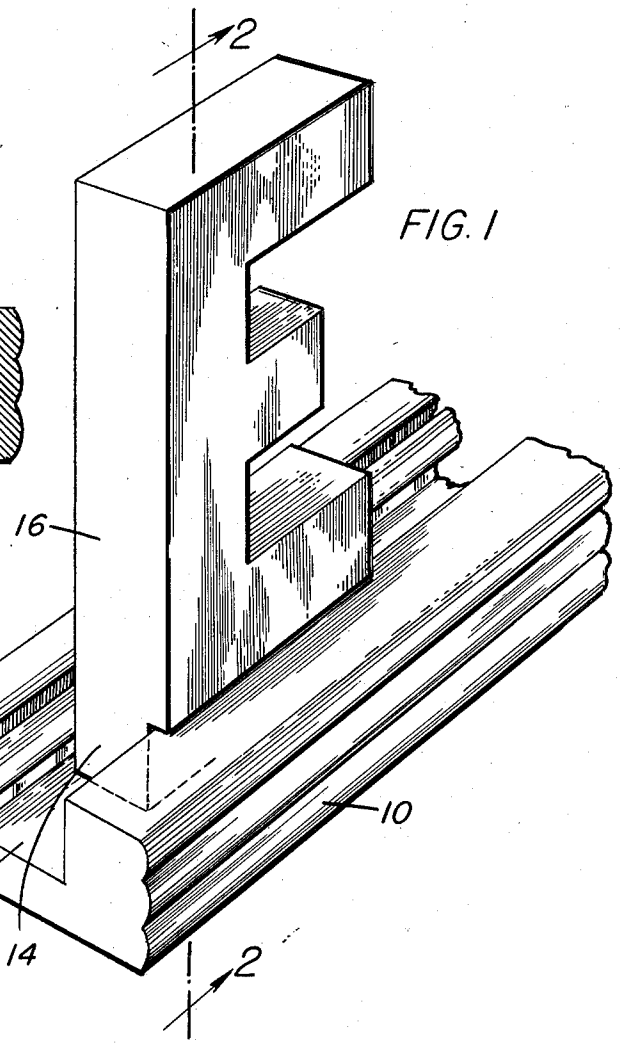



FIG. 1

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2,630,643

## SUPPORT FOR SIGN CHARACTERS

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2 Claims. (Cl. 40—140)

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This invention relates to display signs or the like composed of characters such as letters or figures which are removably and interchangeably supported upon a supporting member, base or track having a longitudinal groove adapted to receive lugs extending from the bottoms of the characters.

The general object of the present invention is to provide means which will insure that the bottom lugs of the characters are properly retained in the longitudinal groove in the supporting member. In accordance with the invention, this is accomplished by making the width of the longitudinal groove in the supporting member considerably greater than the thickness of the bottom lugs of the sign characters, and by providing a spring which is V-shaped in cross-section and is located in said groove and is compressed between a wall thereof and the bottom lugs of the sign characters, whereby the latter are held against the other wall of said groove. The spring just mentioned may have the forms which will be understood from the following description and the drawing in which:

Fig. 1 is a perspective view of a sign character mounted in the supporting member;

Fig. 2 is a fragmentary vertical section taken on the line 2—2 of Fig. 1; and

Fig. 3 is a fragmentary view of a spring modified by the addition of vertical slots in its face.

It will be understood that the supporting member, base or track 10 may be formed of wood or other suitable material, and that it is provided with a longitudinal groove 12, preferably rectangular in cross-section, having a width considerably greater than the thickness of the bottom lug 14 attached to or integral with the bottom of each sign character such as the letter "E" shown at 16, which is solid.

The drawing shows a spring strip which is V-shaped in cross-section and is located in the groove 12 and is compressed between a wall thereof and the bottom lug or lugs 14 of the sign characters, whereby those bottom lugs are held against the other wall of the groove 12. In the drawing the V-shaped spring is characterized by the facts that the width of one side of said spring is about equal to the height of a wall of the longitudinal groove in the supporting member, and that the width of the other side of said spring is about equal to one-half the height of said wall. The reasons for these preferred proportions will be hereinafter explained.

It will be understood that the supporting member is supplied in the desired length to accommodate the characters which make up a complete sign, and may be cut from bulk to suit various signs. The spring may likewise be cut from bulk to correspond to the length of the supporting member or may be supplied in units of various lengths. The spring may be made of light sheet metal such as spring brass.

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Referring to Figs. 1 and 2, it will be apparent that the edge 19 of the shorter side 20 of the spring is offset toward the longer side 21 of said spring, thereby providing a rounded edge on the shorter side 20 of the spring where it engages the bottom lug 14 of the sign character 16. By this construction, the insertion or removal of sign characters in the longitudinal groove of the supporting member against the pressure exerted by the spring is facilitated. It will also be obvious from Fig. 2 that the edge of the longer side of the spring 20 is embedded in a slit 22 in the bottom of the longitudinal groove in the supporting member 10. Such slit is preferably in alinement with the wall of the groove against which the longer side 21 of the spring bears. In this way, the spring is held in place in the supporting member 10 when the edge of the longer side 21 of the spring is jammed into the slit. If desired, the spring may be secured in the supporting member 10 by the application of a suitable adhesive to the cooperating surfaces of the wall of the groove and the outer surface of the longer side 21 of the spring.

It will be apparent that, in the two illustrated embodiments of the invention, the pressure exerted by the V-shaped spring is preferably applied to the bottom lugs 14 of each of the sign characters 16 on a line about midway between the bottom and the top of the groove 12 in the supporting member 10, thereby insuring that the opposite surface of each bottom lug 14 is properly held against the side of the groove 12 opposite the side with which the spring cooperates.

With the types of spring illustrated in Figs. 1 and 2, particularly when made of very thin metal, it has been found that the deflection of the shorter side 20 upon the insertion of a character in the supporting member is sufficiently localized to that portion of the spring adjacent that character as not substantially to affect the retention of an adjacent character in the supporting member. However, in some cases it may be desired to assure that the spring action on one letter is not affected at all by the pressure of a closely adjoining letter and to this end the shorter side 24a of the spring may be provided at intervals with slots 28 as shown in Fig. 3.

This is particularly useful with letters cast in open molds which may have bases which vary appreciably in thickness.

It is to be understood that the embodiments of the invention above described are to be construed as merely illustrative and not as limitations of the invention as defined in the claims.

What is claimed is:

1. A sign comprising one or more sign characters each having a bottom lug, a supporting base having a longitudinal groove adapted to receive said bottom lugs and having a depth about equal to the height and a width substantially greater than the thickness of said bottom lugs, said base being provided with a slit forming a prolongation of the rear wall of said longitudinal groove, retaining means to removably hold said characters against the front wall of said groove comprising a separate spring strip entirely located in and extending longitudinally of the groove and having a V-shaped cross-section, one of the sides of the spring being shorter than the other side and the two sides being so proportioned that when said spring is positioned in said groove with its longer side against the rear wall of the groove and embedded in said slit the shorter side presses against the lugs of said characters at about their midpoints, the distance between the two sides of said spring in its expanded condition being greater than the difference between the thickness of said lugs and the width of said groove, whereby said lugs are pressed against said front wall.



2. A sign according to claim 1, wherein said shorter side of the spring is slotted.

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## REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 506,835 | Tabbert | Oct. 17, 1893 |
| 826,545 | Couch | July 24, 1906 |
| 1,079,179 | Kinney | Nov. 18, 1913 |
| 1,529,968 | Taylor | Mar. 17, 1925 |
| 1,747,400 | Stewart | Feb. 18, 1930 |
| 1,817,879 | Mask | Aug. 4, 1931 |
| 1,995,855 | Lee | Mar. 26, 1935 |
| 2,341,964 | Wagner | Feb. 15, 1944 |
| 2,538,056 | Staaf | Jan. 16, 1951 |
| 2,539,152 | Mitten | Jan. 23, 1951 |