Feb. 7, 1933. L. L. FURAN 1,896,578

TURNING SIGNAL

Filed Aug. 3, 1931 2 Sheets-Sheet 1

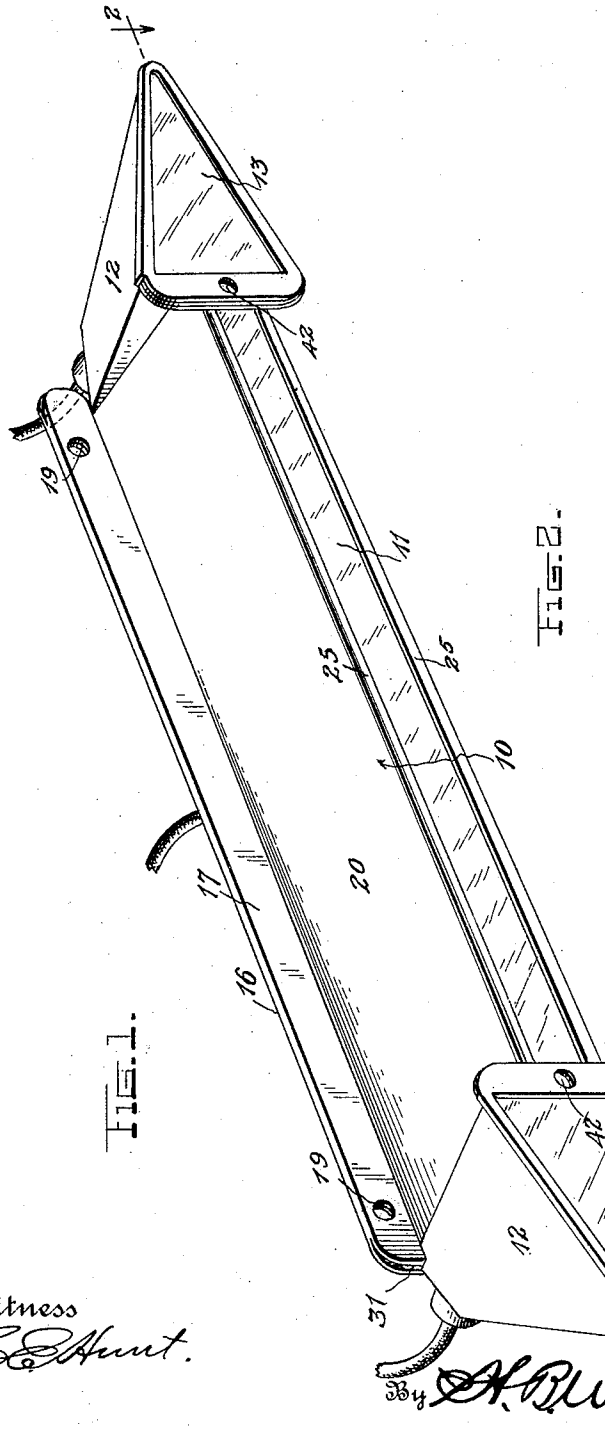

Fig. 1.

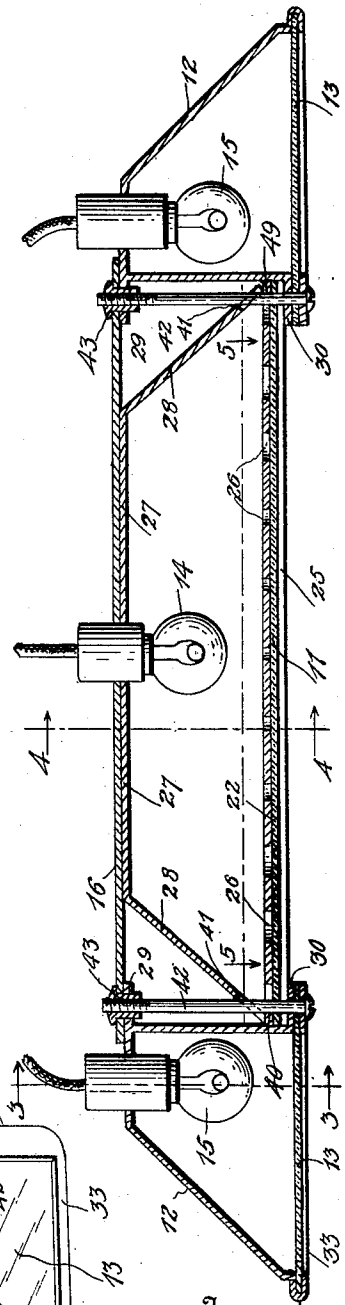

Fig. 2.

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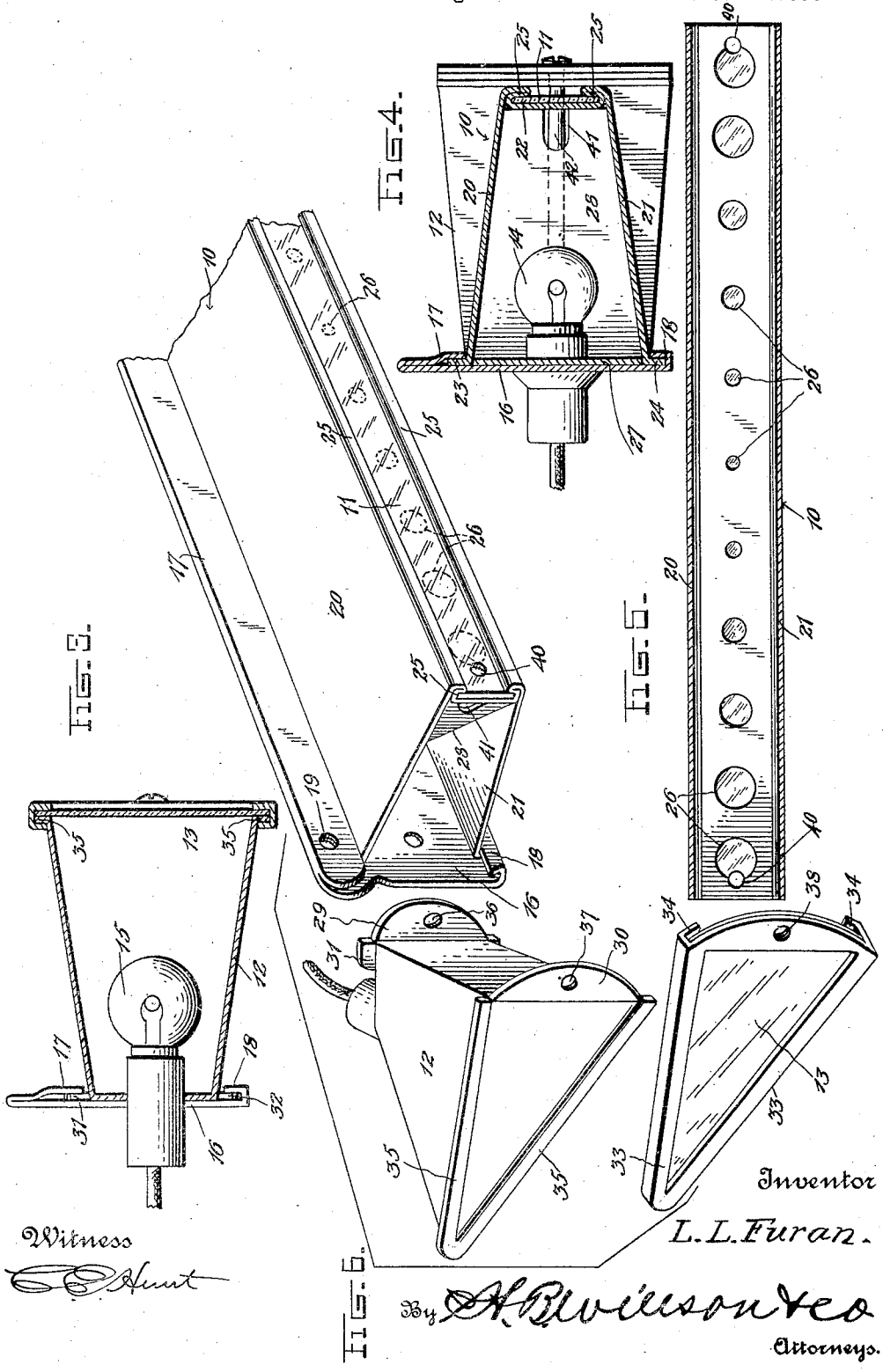

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UNITED STATES PATENT OFFICE

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TURNING SIGNAL

Application filed August 3, 1931. Serial No. 554,899.

The invention relates to signals for use on automobiles to indicate when and in which direction a turn is to be made.

One aim of the invention is to provide a casing having an elongated light-pervious portion and two pointed light-pervious portions at the ends of said elongated portion, providing a double-ended arrow, and to provide for simultaneously illuminating said elongated portion and either one of said pointed portions, thereby forming an illuminated arrow pointing in either direction in which a turn is to be made.

Another object is to provide a novel and advantageous casing structure in which various separate parts are held assembled in a unique way and may readily be disassembled to such an extent as to give access to the illuminating bulbs for the light-pervious portions, whenever replacement becomes necessary.

A still further aim is to make novel provision for illuminating the aforesaid elongated light-pervious portion to substantially a uniform extent throughout its length, with only the necessity of one bulb.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawings.

Fig. 1 is a perspective view of the complete turning signal.

Fig. 2 is a horizontal sectional view on line 2—2 of Fig. 1.

Figs. 3 and 4 are transverse sectional views on lines 3—3 and 4—4 respectively of Fig. 2.

Fig. 5 is a fragmentary vertical sectional view on line 5—5 of Fig. 2.

Fig. 6 is a disassembled perspective view partly broken away.

A preferred construction has been illustrated and will be rather specifically described, with the understanding however that within the scope of the invention as claimed, variations may be made.

The numeral 10 on the drawings denotes a horizontally elongated main casing section having an elongated light-pervious portion 11 of celluloid or the like, extending throughout its length, said portion 11 being preferably of some distinct color such as red. Mounted at the ends of the casing section 10 are two pointed casing sections 12 having light-pervious portions 13 of celluloid or the like, said portions 13 being the same color as the portion 11 and co-acting with the latter in forming a double-ended arrow. A bulb 14 is provided for illuminating the light-pervious portion 11, and two bulbs 15 are provided for illuminating the portions 13 respectively. It will thus be seen that by simultaneously illuminating the bulb 14 and either of the bulbs 15, an illuminated arrow will be displayed pointing in the direction in which a turn is to be made. For effecting illumination of the bulbs, any desired switch (not shown) may be employed, located within convenient reach of the driver or perhaps operated by mechanical instead of manual means.

A horizontally elongated plate 16 forms the front wall for the casing section 10, the upper and lower edge portions of said wall being folded upon themselves to provide upper and lower longitudinal guideways 17 and 18, the upper folded edge being formed with openings 19 to receive bolts or the like for attaching the entire structure to a machine. The top wall 20, bottom wall 21 and rear wall 22 of the casing section 10 are preferably formed from one piece of sheet metal bent into substantially channel shape and having upper and lower flanges 23 and 24 at its free longitudinal edges, said flanges being slidably engaged with the guideways 17 and 18 respectively. This slidable engagement of the greater part of the casing section 10, with the plate 16, allows the former to be slid upon the latter to give access to the bulb 14 when necessary.

At the juncture of the wall 22 with the walls 20 and 21, the metal of the casing section 10 is bent to provide flanged guideways 25 with which the light-pervious portion 11 is engaged, said portion being preferably in the form of a strip of celluloid. To allow rays of light from the bulb 14 to illuminate this strip, the wall 22 is formed with longitudinally spaced perforations 26. Prefer-

ably, the perforations near the bulb 14 are small and those distant from said bulb are larger, and the perforations between said small and large perforations gradually increase in size from said small toward said large perforations.

The rays of light from the bulb 14 may be reflected toward the light-pervious portion 11 if desired, by an appropriate reflector 27 disposed longitudinally in the casing section 10, said reflector having oblique ends 28 extending to the ends of the perforated wall 22.

The pointed casing sections 12 abut the ends of the section 10 and at their inner sides, said sections 12 are each provided with two parallel laterally projecting flanges 29 and 30. These flanges overlap the ends of the plate 16 and the ends of the wall 22 respectively. Each casing section 12 is also provided with an upstanding flange 31 and with a downwardly projecting flange 32, these flanges of the two casing sections 12 being slidably engaged with the ends of the guideways 17 and 18 respectively. The rear side of each casing section 12 is formed by the light-pervious portion 13 and a frame 33 therefor, the latter being flanged at 34 for detachable engagement with the flange 35, so that the rear of the casing may be detached when desired to give access to the bulb 15. The frame 33 overlaps the flange 30, and the three parts 29, 30 and 33 are formed with openings 36, 37 and 38 respectively which aline with an opening 39 in the plate 16 and with an opening 40 in the wall 22 and strip 11. The ends 28 of the reflector 27 are formed with notches or other openings 41 in alinement with the aforesaid openings, and a through-bolt 32 passes through all of the openings as shown in Fig. 2, said bolt preferably having a sleeve-nut 43 in the opening 39. The structure is the same at each end of the signal and it will be seen that the three casing sections are normally held in rigidly assembled relation with the plate 16. Upon removal of either bolt 42 however, either casing section 12 may be removed, thereby allowing sliding of the casing section 10 upon the plate 16 to give access to the bulb 14. Also, removal of either bolt 42 allows removal of the rear wall of either casing 12, for access to the bulb 15.

It will be seen from the foregoing that the invention is of rather simple and inexpensive construction, yet that it will be efficient and desirable. When a turn is to be made in one direction, the light-pervious portion 11 and one of the portions 13 are jointly illuminated, thereby displaying an illuminated arrow pointing in said direction. When a turn is to be made in the other direction, the other of said portions 13 is illuminated simultaneously with the portion 11, thereby forming an illuminated arrow pointing in the other direction.

While the various details disclosed may be considered as preferred, attention is again invited to the fact that within the scope of the invention as claimed, variations may be made.

I claim:—

1. In a signal, a horizontally elongated plate, opposite edges of said plate having longitudinal guideways, a horizontally elongated casing section having portions slidably engaged with said guideways, two additional casing sections abutting the ends of said elongated casing section, and means securing said additional casing sections to said back plate, whereby the casing sections and plate are held assembled and said elongated section normally held against sliding along said guideways.

2. In a signal, a horizontally elongated plate, opposite edges of said plate having longitudinal guideways, a horizontally elongated casing section having portions slidably engaged with said guideways, two additional casing sections abutting the ends of said elongated casing section and having flanges slidably engaged with the ends of said guideways and means securing said additional casing sections to said back plate, whereby the casing sections and plate are held assembled and said elongated section normally held against sliding along said guideways.

3. In a signal, a horizontally elongated plate, opposite edges of said plate having longitudinal guideways, a horizontally elongated casing section having portions slidably engaged with said guideways, an additional casing section abutting one end of said elongated casing section and having flanges overlapping said plate and an opposed wall of said elongated casing section, and a bolt passing through said flanges, said elongated casing section and said plate.

4. In a signal, a horizontally elongated plate, opposite edges of said plate having longitudinal guideways, a horizontally elongated casing section having portions slidably engaged with said guideways, an additional casing section abutting one end of said elongated casing section and having flanges slidably engaged with the ends of said guideways, said additional casing sections being provided with other flanges overlapping said plate and an opposed wall of said elongated casing section, and a bolt passing through said other flanges, said elongated casing section and said plate.

In testimony whereof I affix my signature.

LARS L. FURAN.