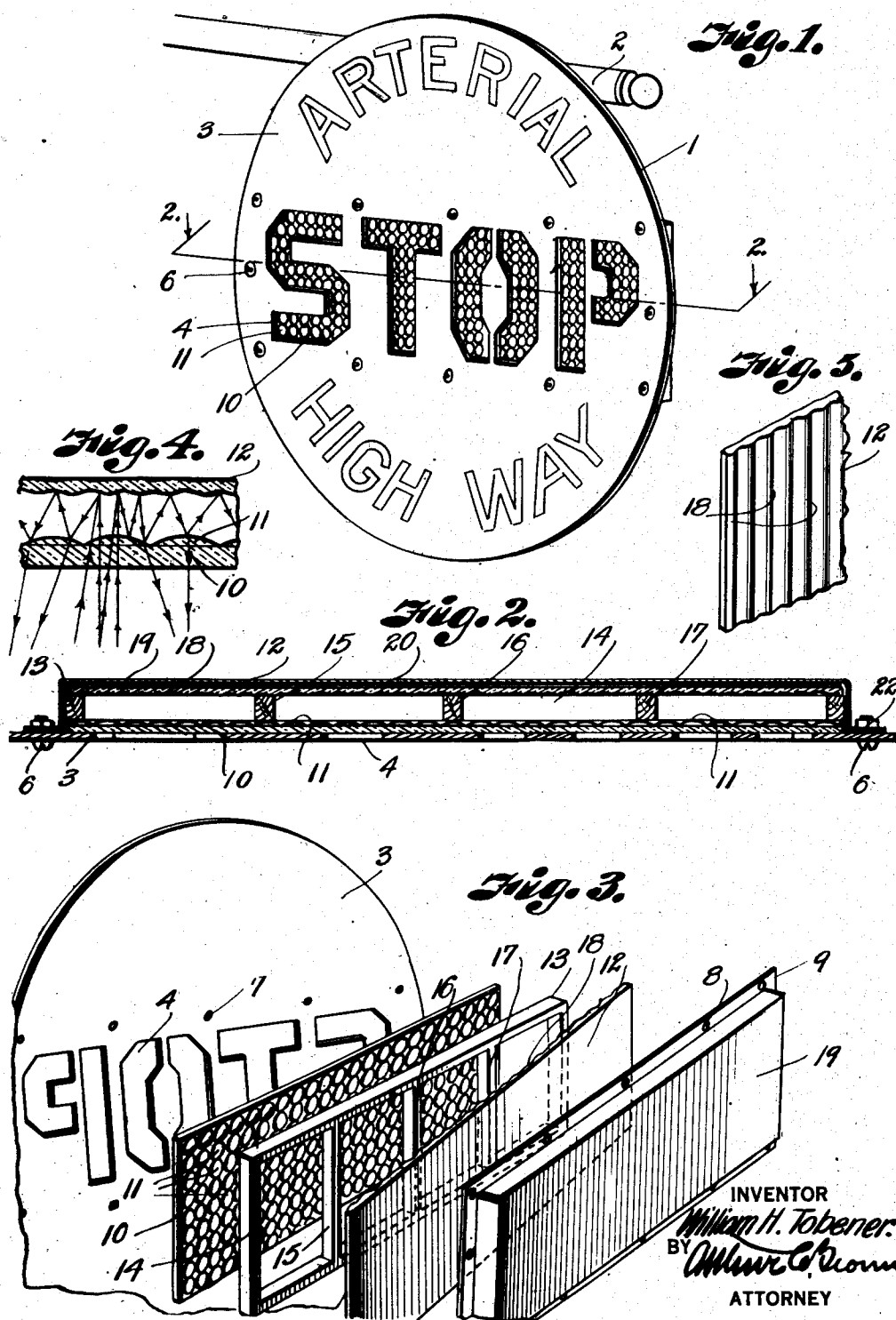


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W. H. TOBENER
REFLECTING TRAFFIC SIGNAL

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REFLECTING TRAFFIC SIGNAL.

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My invention relates to highway signals and has for its principal object to provide a signal of that character whereby rays from the headlights of passing vehicles are received in the signal and caused to glow in sharp contrast to the glare of the headlights to attract the attention of the drivers and impart a warning or traffic instructions.

It is also an object of the invention to provide a signal of this character that is readily discernible by day as well as by night.

In accomplishing these and other objects of the invention I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, in which

Fig. 1 is a perspective view of a signal constructed in accordance with my invention.

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

Fig. 3 is a detail perspective view of the parts of the signal shown in spaced relation, and viewed from the rear.

Fig. 4 is an enlarged sectional view through a portion of the reflecting members of the signal, illustrating the path of the light rays.

Fig. 5 is a detail perspective view of one end of the mirrored reflector.

Referring more in detail to the drawings, 1 designates my preferred form of signal which may be suspended from a bracket 2 fixed to a post or other support adjacent to the side of the road at a point where it will receive light from the headlights of passing vehicles. Specifically, the signal comprises a body plate 3 having the letters 4 of a word of warning or instructions perforated therein and back of which and in line with the letters is a sheet metal housing containing suitable reflectors and which may be secured to the body plate by bolts 6 extending through openings 7 in the body plate and in aligning openings 8 in a peripheral flange 9 of the housing 5.

Within the housing 5 and adjacent to the letters 4 is a translucent, glass plate 10, preferably provided on its inner surface with substantially semi-spherical, integral protuberances 11 to receive and reflect light from a mirrored reflector 12, fixed in the housing at the rear of the translucent plate 10 but spaced therefrom by a focusing member 13, preferably constructed of wood and

comprising a rectangular frame 14, provided with cross strips 15, 16 and 17 to provide partitions between each of the letters 4 of the signal, and of proper thickness to provide the necessary focus between the mirrored reflector and the translucent plate.

The mirrored reflector is preferably fluted or ribbed as indicated at 18 to provide a plurality of reflecting surfaces to diffuse the reflected light over the plate 10. The housing is preferably of such depth as to snugly receive and retain the plate 10, the mirrored reflector 12 and the focusing member 13 firmly in position between the front plate and the back 19 of the housing.

In assembling the signal, preferably two thicknesses of cardboard 20 are placed in the back of the housing to protect the mirrored reflector. The mirrored reflector is then put in place and the focusing frame applied over the mirror; then the translucent plate is placed on top, after which lead is run between the edge of the plate 10 and the housing to seal the parts in place. A gasket 22 is then applied to the flange and the whole bolted to the body plate 3 by the bolts 6 to complete the sign.

In operation, rays of light from the headlights of passing vehicles pass through the translucent plate and are reflected by the flutes on the mirror back upon the spherical protuberances 11 which again reflect them upon the flutes of the mirror, and so on, back and forth between the mirror and the plate, highly intensifying the light reflected upon the translucent plate and causing the letters to appear to be aglow with light.

The translucent plate is preferably of white glass so that it will stand out in contrast to a dark background for the letters and make the signal readily discernible in daylight.

The front plate 3 may be of any desired shape and carry various signs of warnings to suit the particular use of the signal, and it may in some cases be dispensed with by painting the surface of the translucent plate around the outline of the desired letters, leaving clear the surface of the glass occupied by the letters.

What I claim and desire to secure by Letters-Patent is:—

1. In a signal of the character described, a body plate apertured to provide information, a light receiving member back of the

body plate comprising a translucent front plate having protuberant reflector portions on its rear face, a back plate having protuberant reflector portions on its front face, 5 a spacer between said front and back plates and a housing enclosing said plates and spacer and mounting same on the body plate.

2. In a signal of the character described, a body plate perforated with indicia elements, a light receiving member back of the perforated part of said body plate comprising a translucent plate having a rear reflecting surface, a back plate having a front reflecting surface, and a spacer separating 15 said front and back plates and comprising bars in line with the spaces between the indicia elements in the body plate.

3. In a signal of the character described, the combination of a plate having openings 20 outlining characters, a translucent plate

having reflector portions on its rear face, a reflector in the rear of the translucent plate, spacers located between said reflector plates and between each of the openings in the front plate to separate one character from another, a housing for said reflector plates and spacers, said spacers co-operating with the translucent and reflector plates to provide separate compartments in the rear of each character. 25 30

4. A signal device comprising a casing, a reflector in said casing, a plate in the front of the casing having transparent portions in the form of characters, a translucent plate on the inner side of said front plate, said 35 translucent plate having protuberances on the rear surface, and spacers between the translucent plate and the reflector.

In testimony whereof I affix my signature.
WILLIAM H. TOBENER.