

1,338,532.

Patented Apr. 27, 1920.

2 SHEETS—SHEET 1.

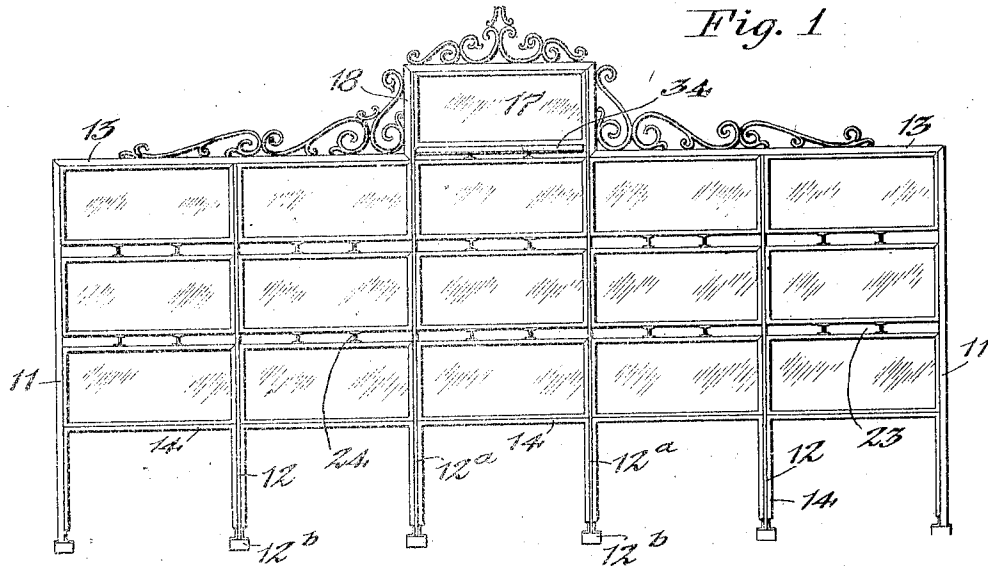


Fig. 2

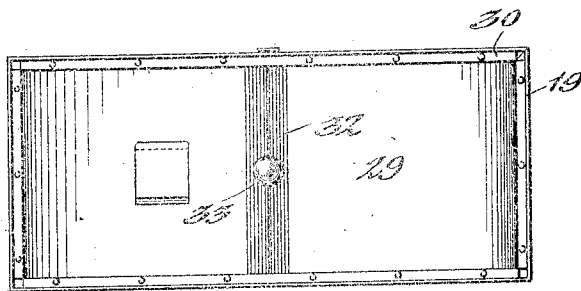


Fig. 3

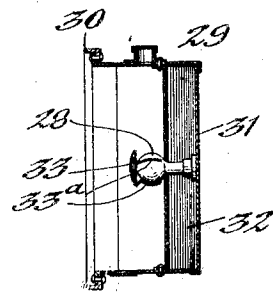


Fig. 4

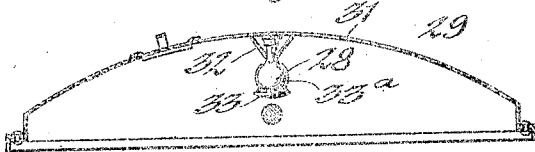
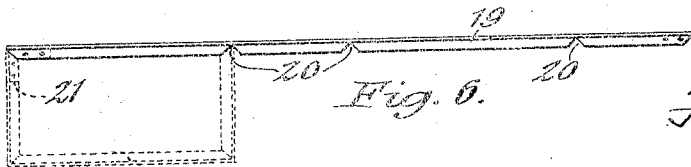
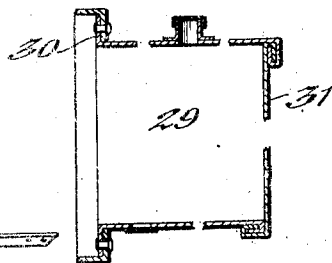


Fig. 5

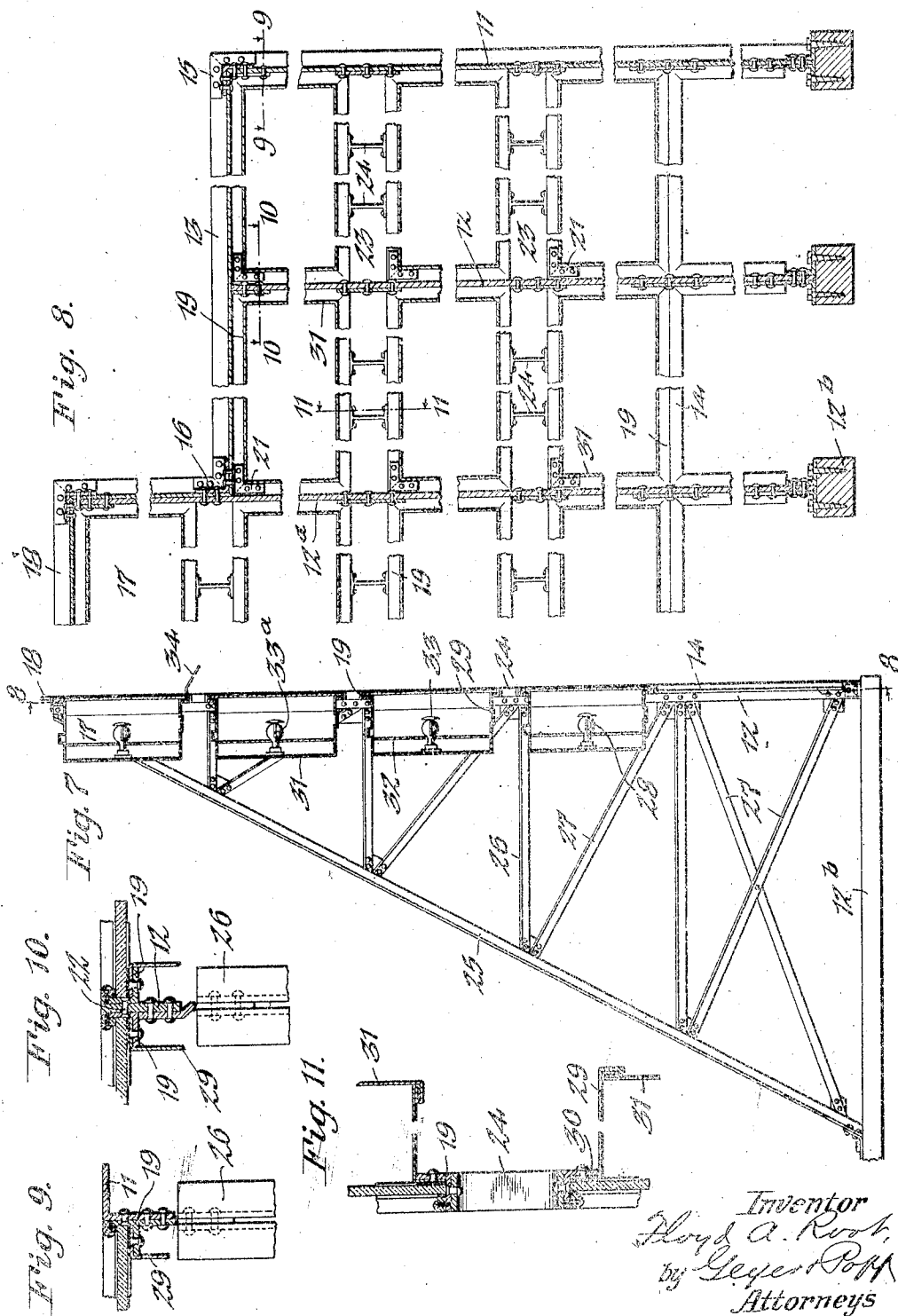


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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

FLOYD A. ROOT, OF LOCKPORT, NEW YORK.

ADVERTISING-SIGN.

1,338,532.

Specification of Letters Patent.

Patented Apr. 27, 1920.

Application filed July 13, 1919. Serial No. 311,703.

To all whom it may concern:

Be it known that I, FLOYD A. ROOT, a citizen of the United States, residing at Lockport, in the county of Niagara and State of New York, have invented new and useful Improvements in Advertising-Signs, of which the following is a specification.

This invention relates more particularly to electric advertising signs of the kind adapted to be erected on buildings or other elevations.

One of its objects is to improve the construction of the sign with a view of rendering it strong and rigid, reducing its cost and enabling it to be readily constructed with a greater or less number of sign compartments, according to the varying requirements of different localities or conditions.

A further object is to provide the several transparent signs or panels with individual reflectors of improved construction.

In the accompanying drawings:

Figure 1 is a front elevation of a sign embodying the invention. Fig. 2 is a detached front view of one of the panel frames and reflectors, on an enlarged scale. Fig. 3 is a vertical central section thereof. Fig. 4 is a central longitudinal section of the same. Fig. 5 is an enlarged transverse section of the same parts. Fig. 6 is a side elevation of one of the blanks from which the panel-frames are constructed. Fig. 7 is a transverse section of the sign, on an enlarged scale. Fig. 8 is a fragmentary longitudinal section thereof on line 8-8. Fig. 7, looking forward. Figs. 9 and 10 are horizontal sections on the correspondingly numbered lines, Fig. 8. Fig. 11 is an enlarged vertical section on line 11-11, Fig. 8.

Similar characters of reference indicate corresponding parts throughout the several views.

The frame of the sign is preferably constructed of structural steel and in the embodiment shown in the drawings it is composed of end uprights 11 of angle iron, intermediate unflanged uprights 12, 12^a, a horizontal top member 13 of angle iron and angle-iron tie-members 14 of inverted U-form connecting the lower portions of the uprights 11. These several uprights are fastened to sills of base-pieces 12^b. The upper horizontal member 13 is secured to each end upright 11 by an angle-iron 15 or other suitable fastening, and each of the two central uprights 12^a by a similar angle-

iron 16. The uprights 12^a are preferably extended above the others to form part of a supporting frame for a central top-sign or panel 17. As shown in Figs. 1, 7 and 8, the top member 13 is formed with a rectangular upward extension 18 having its upright bars secured to the projecting upper portions of the uprights 12^a.

The several uprights of the main frame are preferably spaced uniformly and between each pair thereof is arranged a vertical row of rectangular panel-frames 19 each of which contains a sign of glass or other transparent or translucent material adapted to be illuminated on its rear side, as hereinafter more fully described. In the form shown, each of these panel-frames is bent from a straight continuous bar or blank of angle-iron notched at points forming three of the corners, as shown at 20 in Fig. 6, and mitered at its ends to form the fourth corner, these ends being tied together by an angle-bar 21 riveted or otherwise secured thereto. The front flanges of these panel-frames are arranged transversely of the sign and secured to the adjacent uprights by rivets 22 or other suitable fastenings. The front flanges of the panel-frames in the upper row are also riveted to the top members 13, while the front flanges of the panel-frames in the lowermost row are likewise riveted to the top bars of the U-shaped tie frames 14. Adjacent horizontal rows of the panel-frames are preferably spaced apart, as shown at 23, so that the sign presents less area to the wind. The panel-frames of such horizontal rows may be tied together by short I-bars 24, the flanges of which are riveted to the contiguous flanges of the panel-frames.

The sign-frame as a whole is braced by any suitable means: that shown in the drawings is constructed of angle-iron bars and comprises inclined braces 25, horizontal tie-bars 26 connecting the uprights 12, 12^a with said braces, and diagonal braces 27. As shown in Figs. 9 and 10, the front edges of the panel-frames are preferably flush with the corresponding edges of said uprights, and the latter are considerably wider than the front flanges of the panel-frames, to project rearwardly beyond them and leave their rear portions free and unobstructed for the attachment of the tie-bars 26 and braces 27.

Each of the sign-panels is illuminated in-

dividually preferably by an incandescent electric lamp 28 arranged centrally in rear thereof and inclosed by a case or housing 29 carried by the corresponding panel-frame.

5 This case may be constructed of sheet metal and is closed on all sides, except its front side where it is provided with a projecting marginal flange 30 seated against the inner or rear flange of the panel-frame, which
10 flange is arranged lengthwise of the sign and to which it is riveted or otherwise secured. In its preferred form, the back 31 of each lamp-case is concavo-convex throughout its length in a horizontal direction, and its
15 inner surface is coated with a suitable light-reflecting material, such as white enamel to reflect the light against the back of the sign-panel. To effectually illuminate the extreme ends of the sign-panel as well as its
20 intermediate parts, an auxiliary prismatic reflector 32 may be employed in each lamp-casing. This prism is arranged vertically with its apex facing the sign-panel and extends from top to bottom of the lamp-case,
25 so that the rearward rays of the lamp are reflected by the sides of the prism upon the end portions of the sign-panel. The prism is provided with an aperture for receiving the neck of the bulb.

30 If desired, a circular concave reflector 33 may be placed over the front of the lamp bulb to reflect its forward rays rearwardly against the main reflector or surface of the lamp case. This auxiliary reflector has supporting arms or holders 33^a which embrace
35 the bulb.

By this arrangement of reflectors, the light is diffused over all parts of the sign-panel, which is thus uniformly illuminated
40 from top to bottom and from end to end.

In practice, the central topmost sign-panel is intended to be illuminated continuously during the night-use of the sign, while the remaining signs are intended to be flashed
45 or illuminated intermittently. Any suitable controlling mechanism may be employed for this purpose. This forms no part of my invention and it is therefore not illustrated.

A horizontal shade 34 is preferably arranged to project forwardly from the lower
50 edge of said central top-panel to avoid illu-

mination of the remaining sign-panels, except when illuminated by their own lamps.

The concavo-convex back of the lamp-case, in addition to serving as a reflector, 55 also materially stiffens the case.

It will be noted that the panel-frames 19 in addition to carrying the sign-panels, also act as tie-members for connecting and stiffening the adjacent uprights of the main 60 frame, thus simplifying the structure and at the same time producing a frame of the necessary strength and rigidity to withstand high wind pressures. This construction also enables the size of the sign to be readily in- 65 creased or reduced by employing a greater or less number of vertical rows of panels.

I claim as my invention:

1. An advertising sign, comprising spaced uprights, tie-members of inverted U-form 70 arranged between adjacent uprights and connecting their lower portions, and panel-frames carrying advertising panels and connecting said uprights above said tie-members. 75

2. An advertising sign, comprising spaced uprights, panel-frames carrying advertising panels and arranged in horizontal rows, each panel frame being fitted between a pair of uprights, the panel-frames in adjacent horizontal rows being spaced apart, and tie-bars arranged in the spaces between said rows and connecting the adjacent panel-frames. 80

3. An advertising sign, comprising spaced 85 uprights, angle-iron panel-frames carrying advertising panels and fitted between said uprights, the front flanges of said panel-frames being substantially flush with those of the uprights and narrower than the up- 90 rights, and brace-members secured to the rear portion of said uprights.

4. In an advertising sign, the combination of a panel-frame, an advertising panel arranged in said frame, an open-faced lamp 95 case applied to the rear side of said panel-frame and having a concave back provided with an internal reflecting surface, an upright reflecting prism located centrally on said reflecting surface, and a lamp arranged 100 in said case in front of said prism.

FLOYD A. ROOT.