Oct. 7, 1930. H. H. REYNOLDS 1,777,734

STREET SIGN

Filed Oct. 31, 1929 3 Sheets-Sheet 1

Fig. 1.

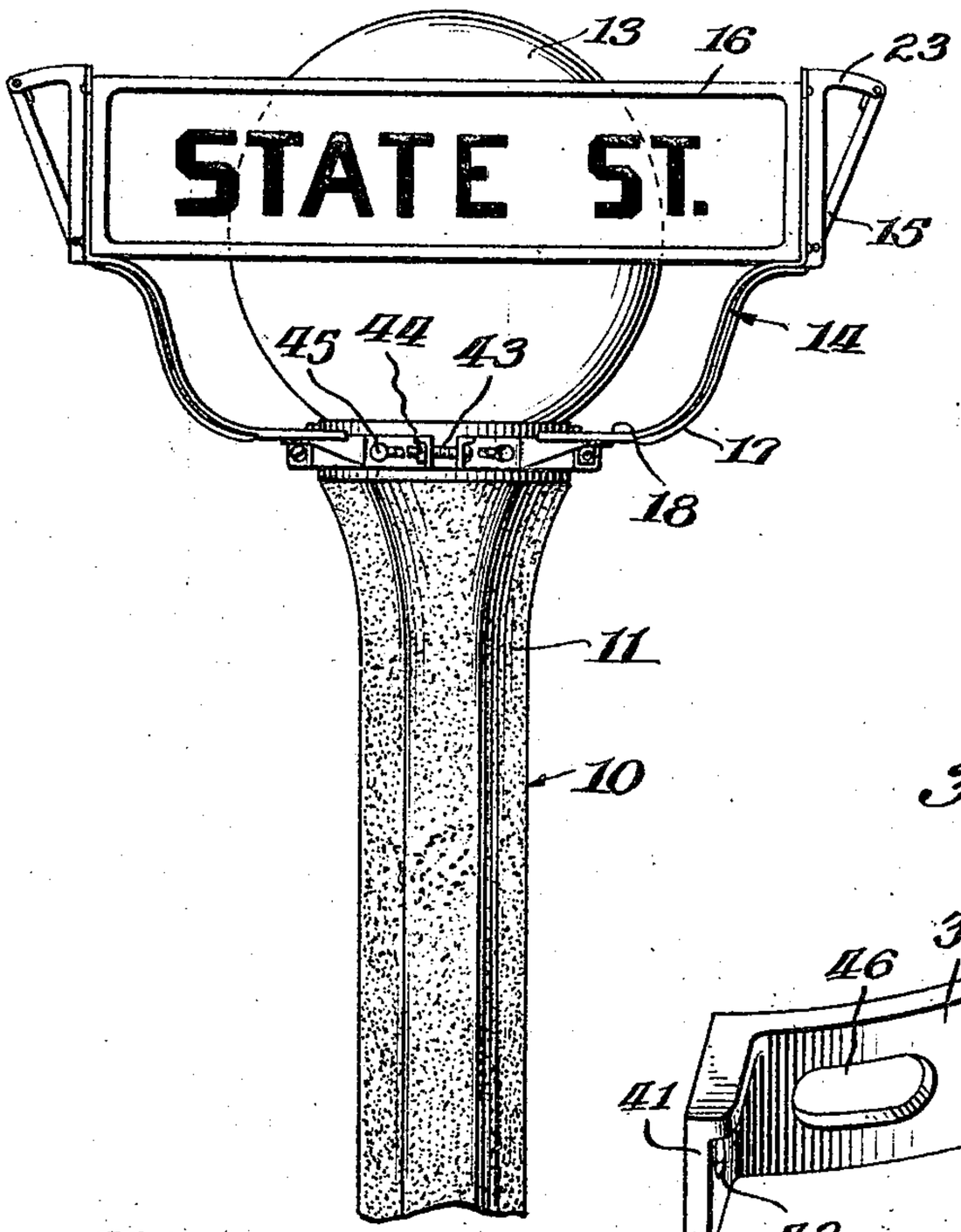


Fig. 4.

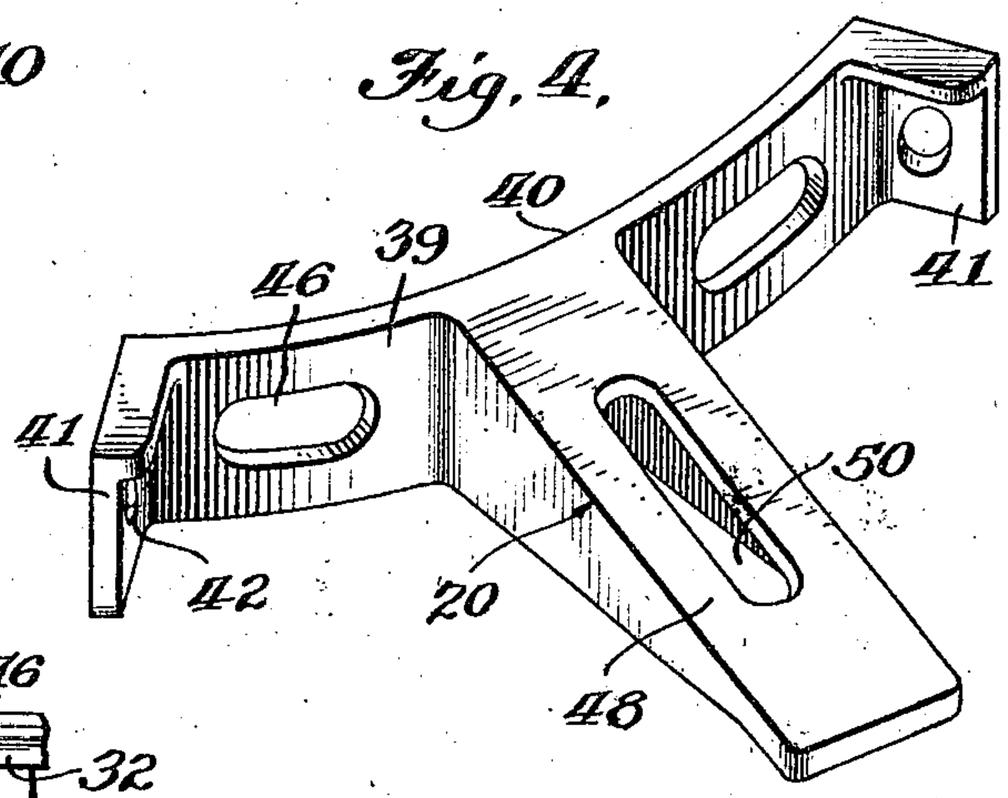
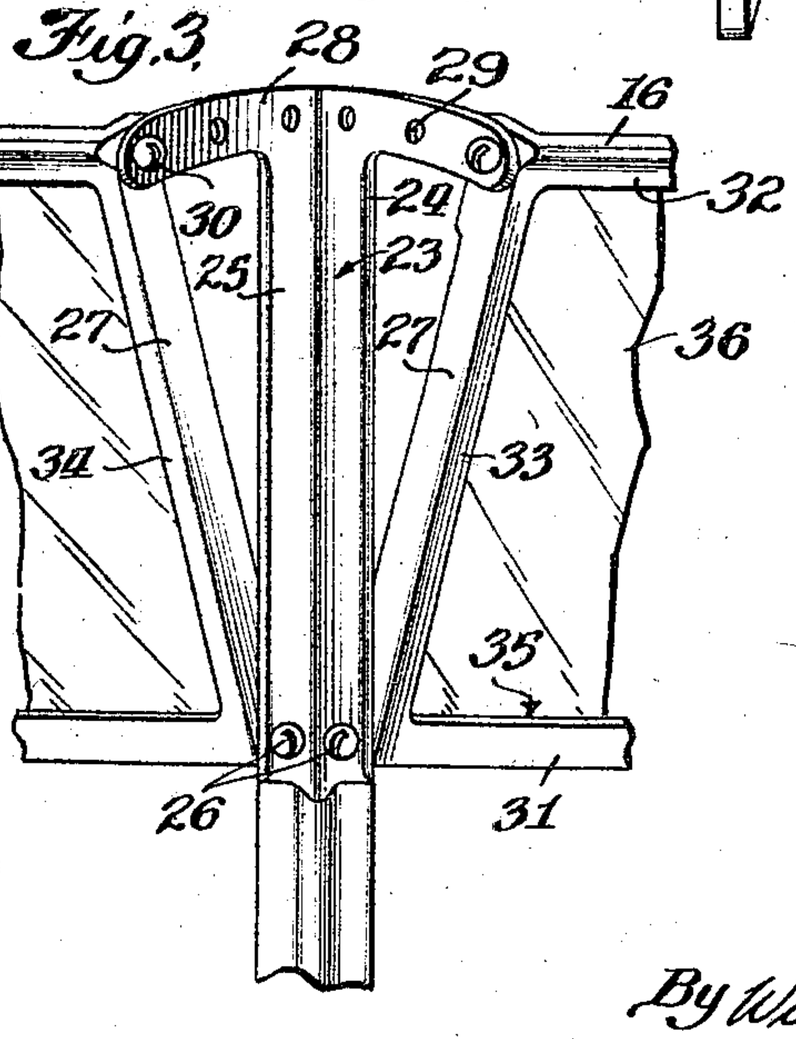


Fig. 3.



Inventor:
Harry H. Reynolds
By Williams Bradbury McCaleb & Hinkle
Attys.

Oct. 7, 1930. H. H. REYNOLDS 1,777,734

STREET SIGN

Filed Oct. 31, 1929 3 Sheets-Sheet 2

Fig. 2.

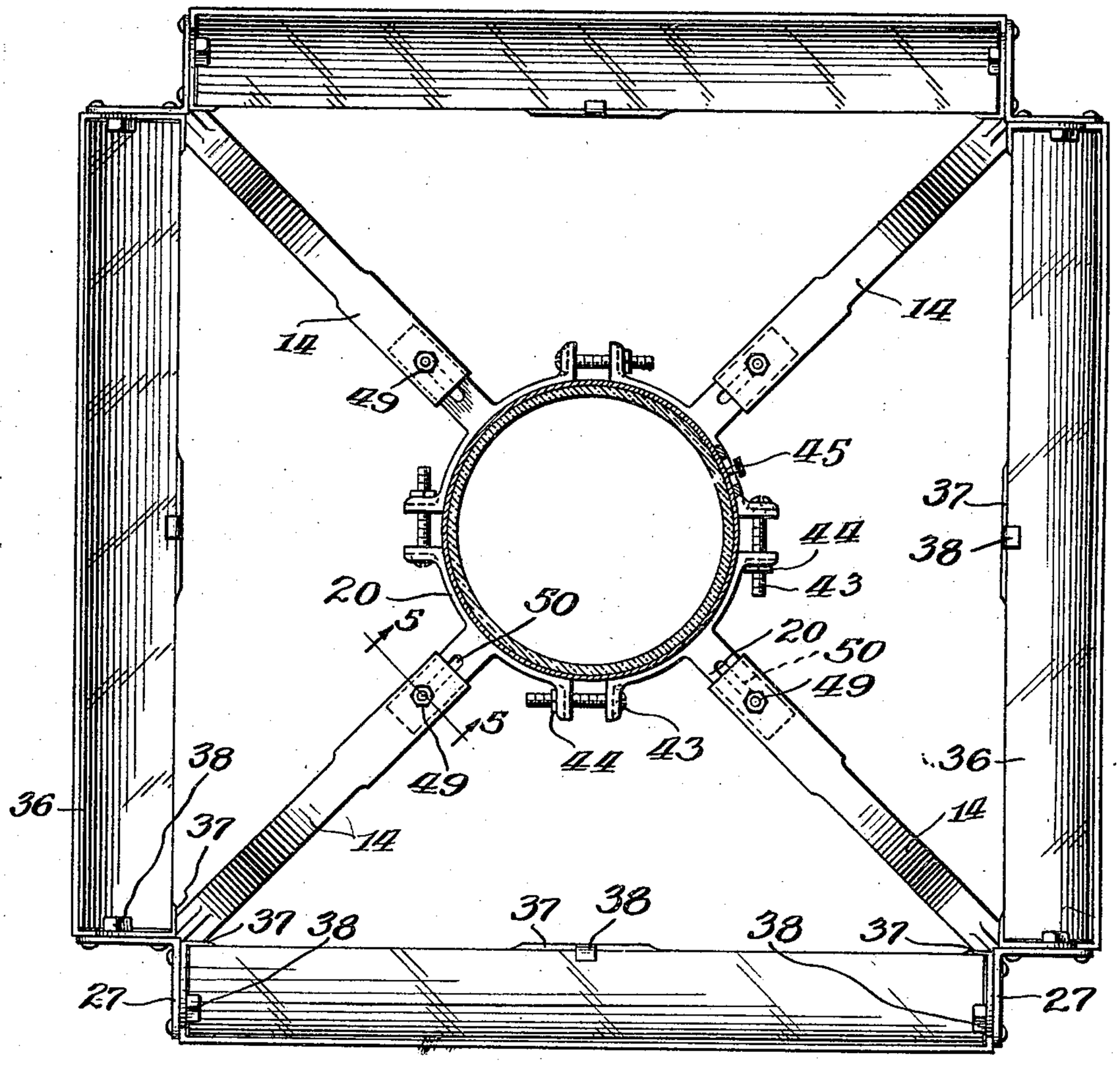


Fig. 5.

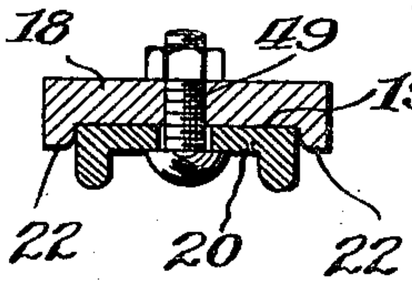
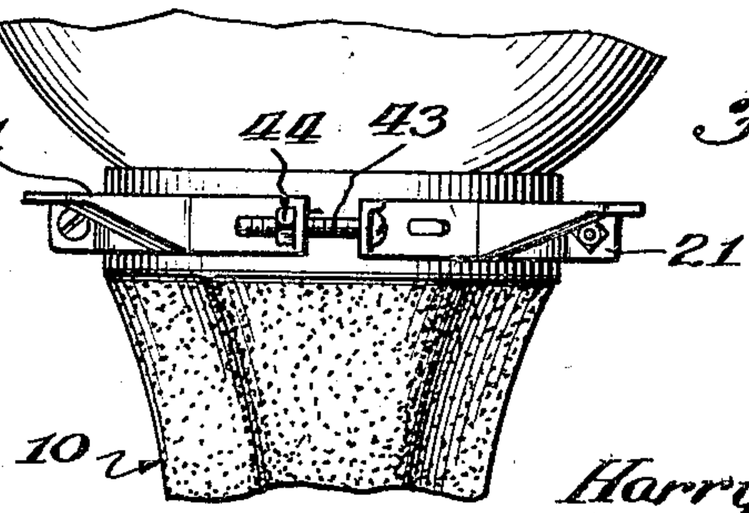


Fig. 6.



Inventor:
Harry H. Reynolds.
By Williams, Bradbury McCaleb & Hinkle
Attys.

Oct. 7, 1930. H. H. REYNOLDS 1,777,734

STREET SIGN

Filed Oct. 31, 1929 3 Sheets-Sheet 3

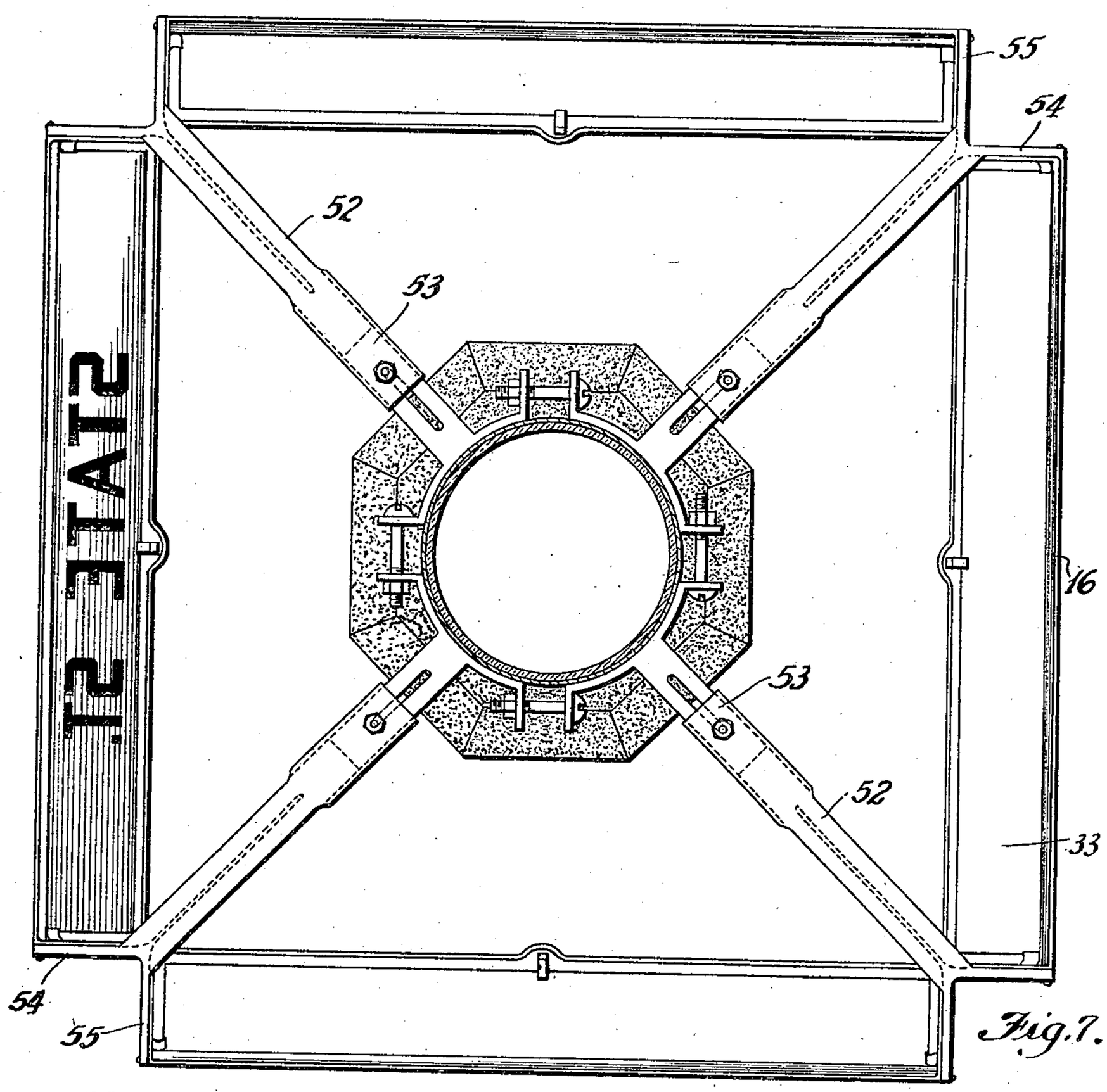


Fig. 7.

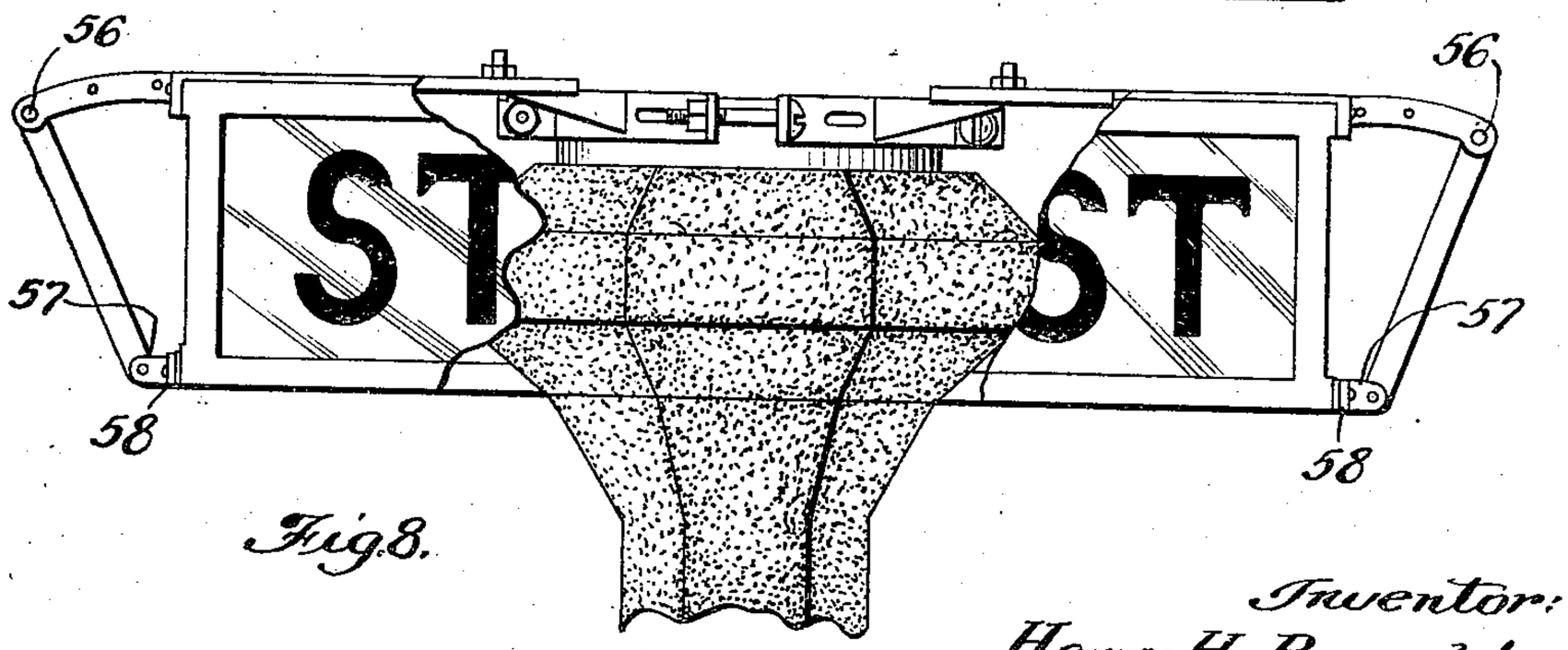


Fig. 8.

Inventor:
Harry H. Reynolds
By Williams, Bradbury, McCaleb & Hinkle.
Attys.

Patented Oct. 7, 1930 1,777,734

UNITED STATES PATENT OFFICE

HARRY H. REYNOLDS, OF CHICAGO, ILLINOIS, ASSIGNOR TO ALFRED M. RYCKOFF, OF CHICAGO, ILLINOIS

STREET SIGN

Application filed October 31, 1929. Serial No. 403,882.

The present invention relates to street signs, and is particularly concerned with signs of the type adapted to be attached to street lights or parts thereof.

The signs of the prior art have not been universally applicable to modern street lamps of all kinds, nor have they been capable of utilizing to the best advantage, the illumination provided by the street lamp under all conditions for lighting the sign at night, without casting disagreeable shadows or obscuring the lamp. The prior devices have also been expensive to manufacture and assemble with modern street lamps, and the prior devices can only be attached to existing lamps with great difficulty, on account of the problem involved in holding the heavy metal sign structure in place while it is being secured by bolts or other fastening devices.

When the sign is of any substantial size and constructed of cast metal, as is usually the case, it is particularly difficult to hold the sign in place and at the same time secure it to the post or other parts of the lamp, because the signs are usually located at such a height that it is necessary to use one or more ladders, and the prior signs must ordinarily be supported at both sides by one or more workmen, while other workmen adjust the securing devices provided.

One of the objects of the present invention is the provision of an improved street sign which is universally applicable to practically all kinds of modern street lamps, or which is applicable to more lamps than the devices of the prior art, and which may be adjusted to utilize the illumination to the best advantage for lighting the signs and the surrounding terrain.

Another object is the provision of an improved street sign structure, which is capable of more economical manufacture than the prior devices, more durable and capable of more permanent and firm attachment to modern street lamp structures.

Another object is the provision of an improved street sign structure, which is capable of being attached to street lamps and adjusted or secured with a minimum amount of effort, and without the necessity of the assistance of several laborers, or lifting devices for holding the sign in place while it is being secured to the post or other parts of the street lamp.

Another object of the invention is the provision of an improved lamp structure, which is adapted to automatically center itself, and provided with means for guiding the various supporting elements into proper position.

Another object is the provision of an improved method of installing street lamp signs which is applicable to many different forms of the improved structure shown herein, and which results in a substantial saving of time, labor and expense in the installation of the signs.

Other objects and advantages of the invention will be apparent from the following description, and from the accompanying drawings, in which similar characters of reference indicate similar parts throughout the several views.

Referring to the drawings, of which there are three sheets;

Fig. 1 is a side elevational view of a lamp equipped with a sign constructed according to the present invention;

Fig. 2 is a plan view with the globe or lamp in section, in order to reveal the construction of the sign unit;

Fig. 3 is an enlarged elevational view of the corner structure of the sign unit;

Fig. 4 is a view in perspective of one of the parts of the securing and supporting unit;

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2, showing the structure of the automatic centering device;

Fig. 6 is an elevational view of the lamp unit and supporting unit as the device appears after the first step in the installation of the signs;

Fig. 7 is a plan view in partial section of a modified form of construction;

Fig. 8 is another view in elevation, of the modified construction broken away to show other details of structure of the device.

Referring to Fig. 1, 10 indicates in its entirety the lamp unit which may consist of a post 11 or other support usually provided with a metal ring 12 for supporting a globe

13, or other luminous body, having an electric bulb or an equivalent source of illumination located inside the globe 13 for illuminating the surrounding terrain.

It should be understood that the globe 13 may be of any shape or equivalent structure, and the source of illumination provided may be any of the conventional sources of illumination capable of being employed with the particular type of globe used.

The sign unit is indicated in its entirety by the number 14, and the sign unit 14 preferably includes a framework 15 surrounding said globe and carried by either of the supports 11 or 12, for locating a plurality of sign carrying frames 16 in the best position to utilize the illumination provided.

In the embodiment shown in Figs. 1 to 5, the framework 15 preferably comprises a plurality of radially extending arms 17, the middle portion of which may be of substantially S-shape in order to improve the ornamental appearance of the sign and to bring the signs into a position which is most desirable with certain types of lamps. The supporting arms 17 are provided at their inner end with a substantially horizontally extending part 18, having a lower seating surface 19 for receiving the radially extending arms 20 carried by the securing and supporting unit 21.

In order to accomplish the function of automatically centering and locating the sign unit upon the supporting unit 21, the horizontal parts 18 of the arms 17 may be provided with depending flanges 22 forming a recess or groove for receiving the radial supporting arms 20 of the supporting unit 21. It should be understood that in some embodiments of the invention the flanges 22 may be carried by the arms 20 of the supporting unit forming a guide in the top of the arm 20 for receiving a complementary member on the sign unit.

The framework 14, surrounding the globe 13, also includes vertically extending parts 23 on each of the radial arms 17 for the purpose of fixedly or adjustably supporting a plurality of sign carrying frames 16.

Each of the vertically extending parts or corners 23 is illustrated in detail in Fig. 3, and it will be observed that in this embodiment, the arm 17 is provided with an integral upwardly extending corner member 23 having a pair of flanges 24 and 25 at right angles to each other. At their lower ends, each of the flanges 24 and 25 is provided with an aperture for receiving screw bolts 26 passing through the flanges 24, 25 and threaded into the flanges 27 on the sign carrying frames 16 for pivotally supporting the bottom of the sign frames during adjustment and fixedly supporting the frames when the sign unit has been installed as desired.

Each of the flanges 24 and 25 is provided at its top with a lateral extension or arcuate portion 28, each of which may be provided with any number of apertures 29 for receiving screw bolts 30 to secure the sign frames 16 in any of a plurality of positions.

It will be understood that the apertures 29 are located upon the arc of a circle drawn with the axis of the bolts 26 as a center, but the extensions 28 need not necessarily be arcuate in shape, but are preferably made so to save material and decrease the weight of the assembly.

The various sign frames 16 may be identical in shape and it should be understood that any number of sign frames may be employed, so that while the present sign unit is rectangular in plan, a sign might also be constructed which would be hexagonal in plan if it were desired to accommodate the sign unit in an intersection having three streets. In such case, the sign frames would naturally be shorter and the angle between the flanges 25 and 24 and the number of arms would be changed accordingly.

Since the sign frames 16 are identical, it will be suffice to describe in detail one of these frames, which may consist of a metal member having a pair of horizontal extending members 31 and 32, and a pair of end frame members 33, 34, forming a fenestration 35 for exposing a sign 36. The end frame members 33 and 34 are preferably provided with inwardly extending flanges 27 for enclosing the sign 36 and providing space for attachment of the sign frame to the frame work, and the bottom frame member 31 may be provided with one or more inwardly extending flanges 37 located at the middle or ends, or extending completely along the bottom for supporting the weight of the sign 36. The flanges 27 and flange 37 are preferably provided with resilient metal fingers 38 extending substantially parallel to the rear side of the sign frame 16, but spaced therefrom so that the fingers 38 form guides for the rear side of the sign 36, and also form securing devices for resiliently engaging the signs 36 when they are in place.

The signs 36 may consist of any material which is capable of receiving printed or other characters, and capable of transmitting some light so that the characters will be illuminated by the unequal transmission of light through the characters and back ground, and the term "translucent" is used in this specification and claims for designating all materials of this character, such as ground glass, painted glass, ground glass with painted letters, etc.

Referring to Fig. 4, one of the elements of the securing and supporting unit is illustrated in perspective in this figure. The element illustrated in Fig. 4 may consist of an arcuate metal clamping member 39, preferably provided with an inner cylindrical surface 40, which is complementary to the outer

surface of the metal supporting ring 12 which carries the globe 13.

Under certain conditions, the present sign may also be secured directly to the post 10, but lamp-post or other supporting devices are made of a vast number of different shapes, and frequently provided with ornamental formations adjacent the top, so that one of the important features of the present invention is the provision of a supporting unit, which is peculiarly adapted to be carried by the ring 12 which supports the lamp 13.

Most modern street lamps include metal rings of this type, of a plurality of standard sizes, and provided with a firm and durable connection to the lamp-post or other device, and the provision of a securing unit which is adapted to be applied to a metal part, rather than to the concrete, greatly increases the durability and permanence of securement to the lamp.

Each of the clamping elements 39 is provided with a radially extending flange 41 having an aperture 42 for receiving the clamping bolts 43 which are preferably secured by nuts 44.

Since the lamp supporting rings 12 are ordinarily provided with screws 45 for engagement with the lower rim of the globe 13, the clamping elements 39 are provided with apertures 46 of sufficient size to pass the heads of the screws 45 and the apertures 46 may be elongated for the purpose of permitting rotary adjustment of the supporting unit on the ring 12. When the supporting unit 21 is supported in clamping relation to the ring 12 or post 11, it will be observed that spaces usually exist between the radial flanges 41, thereby providing additional means for adjustment and location of the clamping members 39 on the ring 12 with respect to the existing screw heads 45.

Each of the clamping members 39 is provided with an outwardly extending supporting arm 20, preferably tapered to secure a maximum strength for a minimum amount of material and provided with an upper supporting surface 48 adapted to engage the seating surface 19 on the bottom of the arms 17 carried by the sign unit. The horizontal portion 18 of the arms 17 is provided with an aperture for receiving a securing bolt 49, and the supporting arm 20 is provided with an elongated slot 50 for adjustably receiving the bolt 49 to secure arms 17 and 20 together.

The slot 50 permits radial adjustment of the clamping members 39 to fit posts or rings of any size, while still maintaining some part of the slot 50 in registry with the aperture for bolt 49 in arm 17.

As previously described, the supporting arm 20 is adapted to be slidably received in a complementary groove between flanges 22, so as to assist in the location and automatic centering of the sign unit upon the supporting unit. The provision of a plurality of separate clamping members 39 with relatively long securing bolts 43 also increases the amount of adjustment which may be made to clamp rings or posts of different sizes. The sign unit illustrated in Figs. 1 to 5 is best adapted to be utilized on posts where the lamp 13 is of such a height that it is more desirable that the sign be located near the top of the lamp 13, thereby permitting utilization of all of the light radiated from the lower part of the lamp for illuminating the terrain without casting shadows on the ground.

Referring to the embodiment illustrated in Figs. 7 and 8, this modified form of construction is best adapted to be used where it is desired to locate the sign unit slightly below the luminous body 13. In this construction the supporting unit 21, sign frames 16 and signs 33, may be identical in construction to that previously described, but the framework of the present device is peculiarly adapted to support the frames in a different manner and greatly reduce the dead weight of the sign unit.

In this embodiment, the framework consists of a plurality of radially extending arms 52 having their inner ends 53 of substantially the same shape as that previously described. The arms 52 may be straight so that they extend out horizontally, or, if desired, they may be provided with a downward curve to locate the sign unit lower, and the outer ends of the arms 52 and 53 are provided with outwardly extending flanges 54 and 55 which are located at right angles to each other, and diagonally with respect to the radial arm 52.

Each of the flanges 54 and 55 may be provided with a plurality of apertures for receiving screw bolts 56 for securing the upper portion of the sign frames 16 to the arm 52 in the same manner as in the previous embodiment.

The lower and adjacent corners of the sign frames 16 are pivotally secured to each other by providing a right angle bracket 57 having a pair of flanges, each of which is provided with an aperture for receiving screw bolts 58 which are threaded into the flanges 27 of the adjacent sign frames.

The sign frames of this device are also capable of angular adjustment to utilize the illumination to the best advantage, but the frames depend from their supporting arms so that the structure of the supporting arms is greatly simplified and made lighter in weight and easier to manufacture.

The method of installment of the present sign units is as follows. The supporting unit 21 is first secured to a part of the post, preferably the ring 12 which carries the globe 13, and this may be done by assembling part of the supporting unit on the ground and completing the assembly at the top of the post.

As the supporting unit is relatively light, this is a simple matter for one workman, because he can hold the supporting unit with one hand and manipulate his tools with the other. Fig. 6 illustrates the completion of the first step in the installation of signs.

The signs should preferably be removed from the sign unit, while it is being installed, in order to eliminate breakage and decrease the weight, and the sign may be assembled on the ground before application to the post, with the exception of one corner, and the tightening of the respective bolts. With one corner open and the bolts loosened. the frames may be sprung apart to permit the sign unit to be placed about the bottom of the post, after which the assembly may be completed and the bolts tightened. In some cases it may be found desirable to insert the signs on the ground, after the unit is assembled about the post.

The sign unit 14 may then be raised about the post 11 and the arms 17, being located to prevent interference with the arms 20, the sign unit may be raised above the supporting unit 21, rotated slightly and seated upon the supporting arms 21. When this is done, it is only necessary to effect a preliminary seating of any two of the arms 17 upon the arms 20 of the supporting unit 21, after which the sign unit may be slid on two of the radial arms 20 until the other arms 17 come into registry with the other two radial arms 20, when the flanges 22 will automatically center and locate the sign unit.

In some embodiments of the invention, where the ornamentation of the top of the post is too large to pass the ends of the arms 17, the sign unit may be assembled entirely on the ground and lifted over the top of the globe 13, provided the globe is small enough to clear the ends of the arms 17, as in the embodiment of Fig. 1. In extreme cases where the globe is too large, the present sign unit may be quickly installed by removing the globe. After the sign unit is properly located, the arms 17 are secured to the arms 20 by means of the bolts 19 and if necessary, other bolts may be loosened or tightened to insure horizontal and symmetrical location of the signs.

It will thus be observed that the present sign unit may be installed with much greater facility than the devices of the prior art, because the sign unit may be assembled on the ground and merely lifted and supported in place by the supporting unit, while the bolts are fastened. This eliminates the necessity for a number of extra workmen in the installation of the signs, particularly where the signs are constructed of cast metal, and are therefore of considerable weight. The present method of installation, however, has substantial advantages with signs of practically any weight, because it is a difficult matter to both support the weight of the sign in place and at the same time secure it where it is desired.

The present signs are also adapted to utilize to the best advantage, the illumination provided by practically all types of modern street lamps, by means of the angular adjustment of the sign frames, and by means of the different types of arms provided, the sign frames may be located substantially above or below the globe.

While I have illustrated a preferred embodiment of my invention, many modifications may be made without departing from the spirit of the invention, and I do not wish to be limited to the precise details of construction set forth, but desire to avail myself of all changes within the scope of the appended claims.

Having thus described my invention, what I claim is new and desire to secure by Letters Patent of the United States, is:

1. A street sign assembly, comprising a street lamp globe, a metal annulus for supporting said globe, and a street sign having a translucent member adapted to be illuminated by said globe, said street sign including a plurality of clamping members having recesses to receive securing devices carried by said annulus, and said clamping members being secured on said annulus.

2. In a street sign assembly, the combination of a concrete lamp post, with a metal annulus carried thereby for supporting a globe, a globe carried by said annulus, a supporting unit comprising clamping members clamped on said annulus and having radially extending arms, and a sign unit comprising a plurality of frames with street signs, means for pivotally securing together the lower and adjacent corners of said frames, and horizontal arms carried by said radial arms, and having flanges engaging the sides of said radial arms, said horizontal arms having means for adjustably supporting depending sign frames from their upper parts.

3. A street sign, comprising a concrete post having a metal annulus fixedly secured to said post to provide a support for a street lamp, an illumination globe carried by said annulus, a plurality of metal clamping members having curved surfaces for engaging said annulus, and adjustable threaded members for securing said clamping members on said annulus, said clamping members having radially extending arms, metal sign frames having translucent signs in said frames for illumination by said globe, means for securing the lower corners of said frames together, end to end to form a sign assembly, and a radial arm at each of the corners of said assembly for supporting said sign assembly below said annulus, each of said latter radial arms being secured to one of the arms of said clamping members.

4. A street sign, comprising a concrete

post having a metal annulus fixedly secured to said post to provide a support for a street lamp, a globe carried by said annulus, a plurality of metal clamping members, each having a curved surface for engaging said annulus, and a radially extending arm for supporting a sign assembly, adjustable threaded members for securing said clamping members on said annulus, a plurality of metal sign frames each having a sign in said frame for illumination by said globe, means for securing the lower corners of said frames together, end to end, to form a sign assembly, a sign supporting arm for each corner of said sign assembly, said sign supporting arms having downwardly extending flanges for engaging on both sides of said radial arms, and having a pair of arms extending at right angles to each other at the outer end of said sign supporting arms, said sign frames having their upper corners secured to said latter right angle arms, and said sign frames depending from said arms below said globe to be illumined by downwardly and laterally directed rays of light without obscuring said globe.

In witness whereof, I hereunto subscribe my name this 29th day of October, 1929.

HARRY H. REYNOLDS.