

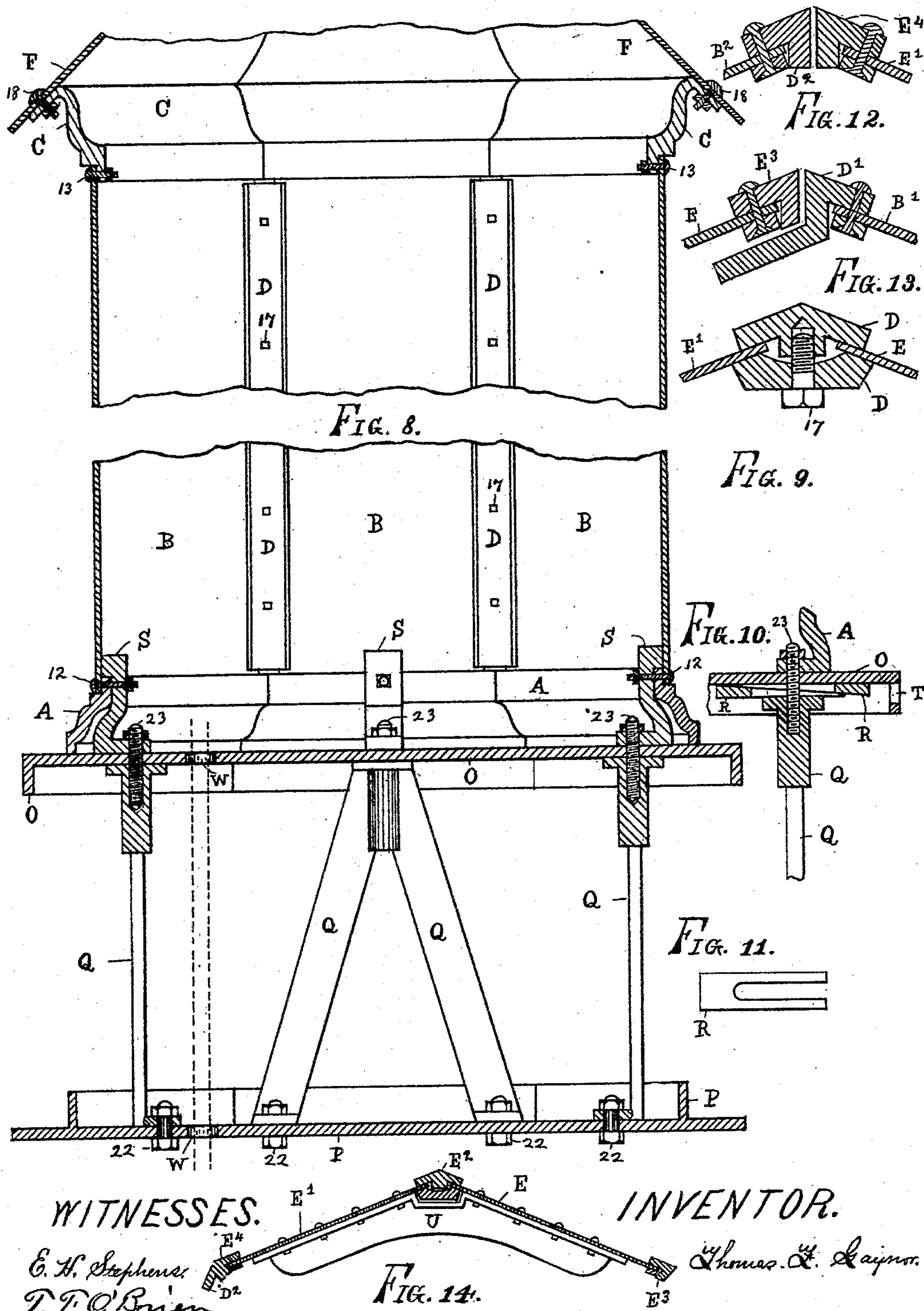
(No Model.)

2 Sheets—Sheet 2.

T. F. GAYNOR.
BOOTH FOR SIGNALING PURPOSES.

No. 411,805.

Patented Oct. 1, 1889.



WITNESSES.

E. H. Stephens.
T. F. O'Brien

INVENTOR.

Thomas F. Gaynor.

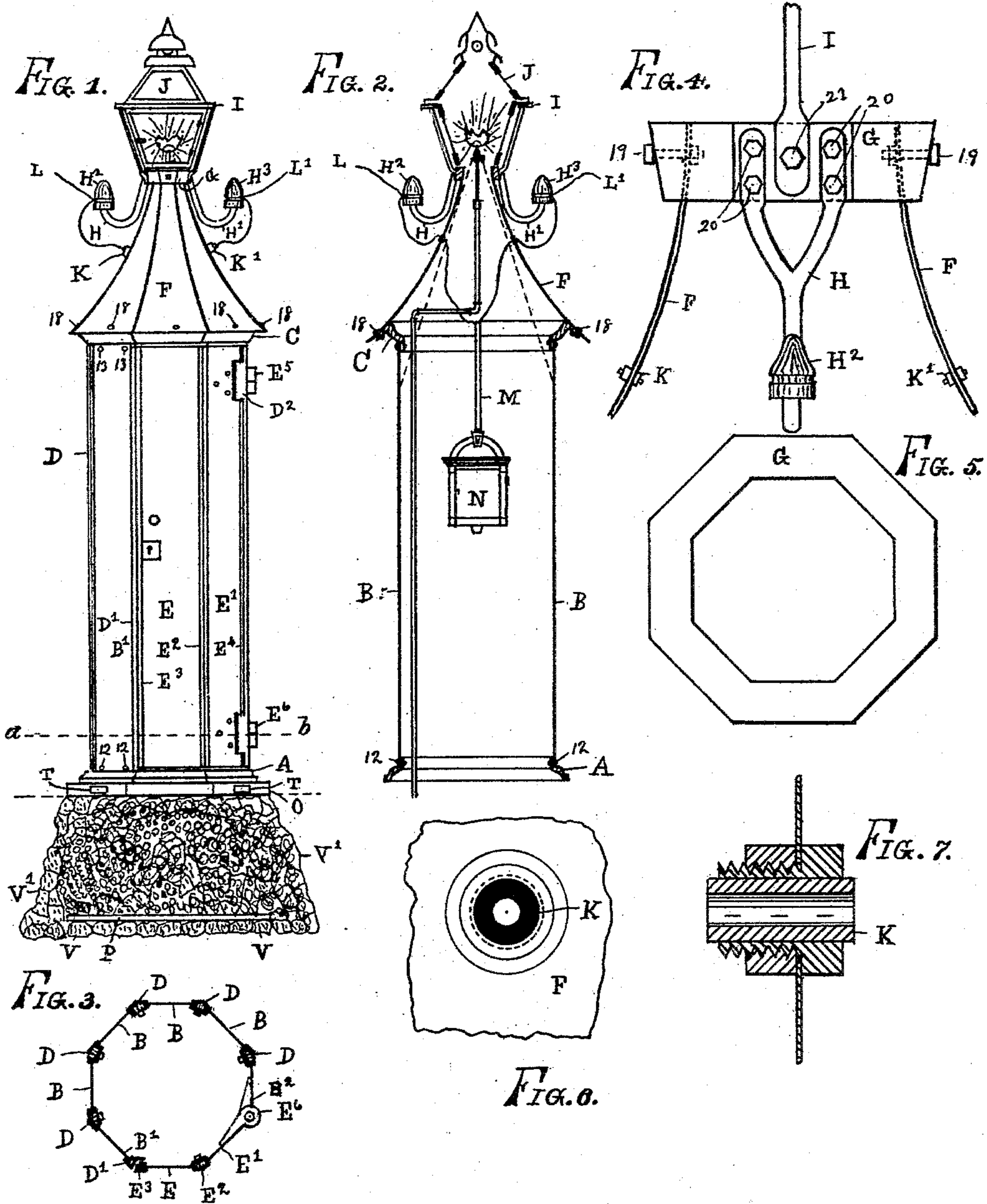
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UNITED STATES PATENT OFFICE.

THOMAS F. GAYNOR, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO THE
GAYNOR ELECTRIC COMPANY, OF SAME PLACE.

BOOTH FOR SIGNALING PURPOSES.

SPECIFICATION forming part of Letters Patent No. 411,805, dated October 1, 1889.

Application filed June 10, 1889. Serial No. 313,806. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. GAYNOR, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Booths for Signaling Purposes, of which the following is a specification.

My invention relates to improvements in booths for signaling purposes in which electric signal-boxes are placed.

The object of my invention is to provide a booth with a roof upon which a lamp can be placed in such a manner as to allow the light from the lamp to illuminate the surrounding locality and also the interior of the booth without necessitating the use of glass or other transparent and frail material in the construction of the roof, as has heretofore been the case in structures of this kind.

My object is also to provide a booth of such construction as will admit of the use of metal of a substantial thickness in its walls without necessitating the bending of the metal at the angles of the structure, which is a difficult operation, and in which only metal of a comparatively thin gage can be employed, which leaves the walls weak and easily perforated.

My object is, further, to provide said booth with a substantial foundation-frame having means of adjustment for the base-plate, by which the latter may be secured in a level position after the foundation has been laid.

I attain these objects by the methods of construction illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of an octagonal-shaped booth shown resting in position with its foundation. Fig. 2 is a vertical section of Fig. 1, showing the manner in which the light illuminates the interior of the booth, the binding-posts and joints in the roof being omitted for purposes of clearness. Fig. 3 is a horizontal section of Fig. 1 through the line *a b*. Fig. 4 is an enlarged front view of a collar attached to the top of the roof with the parts connected thereto. Fig. 5 is a top view of the collar shown in Fig. 4. Fig. 6 is a front view of an insulator in the roof of the booth. Fig. 7 is a vertical sectional

view of Fig. 6. Fig. 8 is an enlarged vertical view of a part of the booth, showing the foundation-frame partly in section. Fig. 9 is a cross-section of one of the binding-posts of the booth. Fig. 10 shows a mode of adjustment for leveling the base plate of the booth. Fig. 11 represents a top view of one of the wedges shown in Fig. 10. Figs. 12 and 13 show enlarged cross-sectional views of the jamb-posts of the booth and the jamb-strips secured to the edges of the door. Fig. 14 is a cross-sectional view of the door, showing a brace which keeps the door-plates in position and gives strength and rigidity to the door.

Similar letters refer to similar parts throughout the several views, in which—

A represents a sill-frame of iron cast in one piece, and to which the side plates B B of the booth are secured by bolts 12 12.

C represents a roof-frame, also cast in one piece, and to which the upper ends of the side plates B B are secured by bolts 13 13.

D D are binding-posts placed at the angles of the booth for the purpose of covering the joints between the side plates B B, supporting the roof and strengthening the structure. The posts D D are made in two separable parts, secured together by screws 17 17, and are shown in cross-section in Fig. 9.

E E' represent plates forming part of the door of the booth, which is also provided with a binding-post E², which is similar in construction to the posts D D, and is for the purpose of covering the joint between the plates, binding them together and giving strength and rigidity to the door. The door-plates E E' are also held together and braced in their angular position by braces riveted thereto, one of which is shown at U in Fig. 14.

The side edges of the door are provided with jamb-strips E³ E⁴, which are riveted to the plates E E' of the door, and are seen in enlarged cross-sectional view in Figs. 12 and 13, and are for the purpose of giving rigidity to the door.

E⁵ and E⁶ in Figs. 1 and 3 represent hinges secured to the door and to one of the sides of the booth, and on which the door is hinged.

D' represents a rabbeted door-jamb post, (seen in enlarged cross-sectional view in Fig. 13,) where it is shown as being made in two

parts, which are riveted together to the edge B' of one of the side plates of the booth for the purpose of forming a jamb for the door to strike against, and which also serves to support the roof the same as the posts D D.

D², Fig. 12, represents an enlarged sectional view of a door-jamb post on the hinged edge B² of one of the side plates of the booth, and is similar in purpose and construction to the door-jamb post D', except that it is not rabbeted.

F represents a metal roof having the shape of an octagonal concave frustum, the sections of which may be jointed and soldered or riveted together in the usual manner of sheet metal of this kind. The lower part of the roof F is secured to the roof-frame C by bolts 18 18. The upper part of the roof F is provided with an octagonal collar G, which is bolted to the roof F by bolts 19 19, as seen in Fig. 4. To the collar G the insulator-brackets H H', carrying the insulators H² H³, are secured by means of screws 20 20.

I is a lamp-supporting frame, which is attached to the collar G by bolts, one of which is shown at 21, Fig. 4, and carries the lamp J, which is of the usual construction of street-lamps, the bottom being left open, and needs no further description.

In the drawings the booth is shown as provided with a gas-burner and a pipe leading thereto, which are clearly shown in Fig. 2.

K K' represent insulators fitted in the roof, which are shown in enlarged view in Figs. 6 and 7, and through which insulated conducting-wires L L' pass through the roof and thence through an iron pipe M to the signal-box N, in which electric signal mechanism is placed.

Fig. 8 shows a part of the booth in section in an enlarged view, showing the underground portion of the booth, consisting of the bed-plate P and standards Q Q Q, by means of which the base-plate O and the bed-plate P are secured together by bolts 22 22 and adjusting-bolts 23 23.

Fig. 10 shows the means of leveling the base-plate O after the foundation-frame has been set in the ground.

R R represent wedges, a top view of one of which is seen in Fig. 11, which may be placed between the tops of the standards Q Q and the bottom of the base-plate O, and by the adjustment of which the leveling of the base-plate O is secured.

S S represent clamps, by which the booth is secured to the foundation by means of the sill-bolts 12 12 and adjusting-bolts 23 23.

Heretofore in booths of this character the walls have been made of wood, or else of very thin sheet metal. When made of wood, the structure is liable to crack, shrink, and warp, and can be easily cut or destroyed, and is not durable, as a consequence of which the booth is now generally made of thin sheet-iron. When sheet-iron is used, it is bent at the angles, which operation necessitates the

use of iron of a thin gage, as this operation of angular bending is very difficult and expensive, and it is impracticable to use iron of a thicker gage. As a consequence of the use of this thin iron, the structure is comparatively frail, and is easily perforated or defaced by malicious persons.

Heretofore booths have been made without any portion thereof extending into the ground, they being usually placed resting upon a pavement and secured in position by bolts passing into or through a stone or driven into the ground. These methods of construction and of securing the booth are unstable and provide no adequate means of adjusting the booth to a true perpendicular position after having been set on its foundation. Frequently after booths have been set up they get out of plumb by reason of the settling of the foundation, and it is difficult to secure them in a perpendicular position again. This difficulty is obviated by the methods of construction and adjustment herein shown and described, for if the foundation should settle unequally the low side of the base-plate can be raised to a level position by unscrewing the nuts of the adjustment-bolts and by driving in the wedges on the low side of the base-plate and then screwing up the nuts on the adjusting-bolts again. Access can be had to the wedges through the holes T T in the edge of the base-plate, as shown in Figs. 1 and 10.

By extending the booth into the ground, as herein shown and described, it becomes rigidly fixed, like a fence-post, and capable of withstanding the lateral pressure of the wires which are connected to the insulators on the roof. The door can be provided with a lock and a knob to open it with in the usual manner of door locks and knobs. The lamp-supporting frame is so fitted to the lamp and the roof-collar as to allow the lamp to rest on the roof-collar, so as to make a practically-close joint between the lamp and the collar, thereby excluding dust, rain, and snow. The daylight enters through the glass lamp and the light-admitting aperture at the apex of the roof, and illuminates the interior of the booth in the day-time.

The object of my invention is to remedy these faults of construction. As the side plates B B can be made in rectangular form and the edges clamped together by the posts D D, as shown in Figs. 3, 8, and 9, by this method of construction it can be seen that no bending of the plates is required, and metal of any desired thickness can be used, and as the posts cover the joints between the plates no accurate fitting of the joints is required.

Booths for signaling purposes have heretofore been made with glass roofs when it was necessary to allow the light of the lamp from above to illuminate the interior of the booth. The glass in such roofs is easily broken, which allows the rain, snow, and dust to fall into the booth, which is undesirable. Sometimes soot, dust, or snow falls on the glass roof and

prevents the lamp from illuminating the interior. Heretofore the lamps placed upon the top of booths of this character have been supported by a central post which obstructs the rays of the light and greatly diminishes the illumination of the interior of the booth. As a remedy for these defects in the construction of the roofs of booths, I dispense entirely with the use of glass in the roof and secure an unobstructed illumination of the interior without interfering with the utility of the lamp for street illumination. By my method of roof construction I also dispense with the central lamp-support with its light-obstructing feature. The lamp being of the ordinary kind having a hinged door, the gas or other illuminant may be ignited through the door or through the open bottom of the lamp from the interior of the booth.

When the booth is to be placed in position, a bed V of stone or concrete can be first laid in the ground and the bed-plate placed thereon, as shown in Fig. 1. Before setting the bed-plate the standards and base-plate can be secured thereto, as shown in Fig. 8, when the whole foundation-frame can be leveled up. Then the base-plate O can be removed and the space between the bed-plate P and the base-plate O and around the standards Q Q can be filled up with rock or concrete V', as shown in Fig. 1, after which the base-plate can be again placed in position upon the standards and the booth secured in position on the base-plate by means of the clamps and adjusting-bolts, as already shown and described. The bed-plate and the base-plate may be provided with holes W W, through which gas-pipes or underground wires may be brought to the lamp or the signal-box within the booth, as shown at W W, Fig. 8.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A booth consisting of a bed-plate, standards provided with adjusting-bolts, a base-plate, a sill-plate, side plates, binding-posts, a door hinged to one of said side plates, a roof-plate, a roof provided with an opening at its apex, through which the light of a lamp may be admitted, and also provided with a collar to which a lamp-supporting frame and insulator-brackets may be secured, and a lamp, all in combination, substantially as described.

2. A booth consisting of a sill-plate, side plates, binding-posts, a door hinged to one of said side plates, a roof-plate, a roof provided with an opening at its apex, through which the light of a lamp may be admitted, and also provided with a collar to which a lamp-supporting frame and insulator-brackets may be secured, and a lamp, all in combination, substantially as described.

3. A booth provided with a roof having a light-admitting aperture at its apex, in combination with a lamp supported above the roof, substantially as described.

4. A booth having a sill-plate, a roof-plate, side plates connected with said sill-plate and roof-plate, separable binding-posts adapted to cover the joints between said side plates, a door provided with a separable binding-post, jamb-posts, and braces and hinged to one of said side plates, and a roof, all in combination, substantially as described.

5. In combination with the roof of a booth, a lamp-supporting and an insulator-bracket-supporting collar, substantially as described.

6. In combination with the base-plate and the foundation-standards of a booth, the adjusting-bolts and adjusting-wedges, substantially as described.

THOMAS F. GAYNOR.

Witnesses:

T. F. O'BRIEN,
W. H. STEWART.