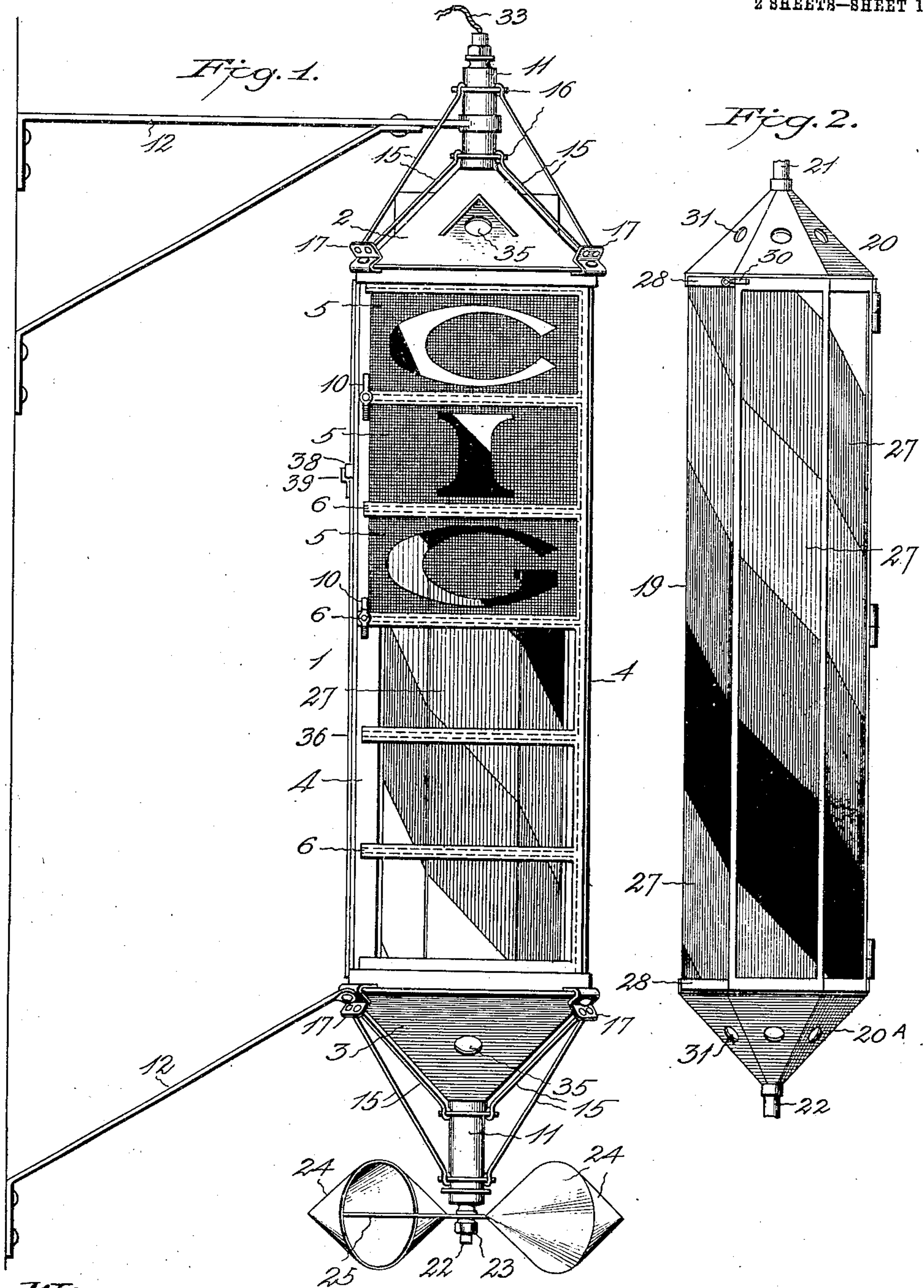


J. E. SAUNDERS.  
 REVOLVING ILLUMINATED SIGN.  
 APPLICATION FILED FEB. 19, 1909.

935,236.

Patented Sept. 28, 1909.

2 SHEETS—SHEET 1.



Witnesses:

G. Sargent Elliott.

Thomas J. Fowle

By

H. S. Bailey

Inventor:

Joseph E. Saunders

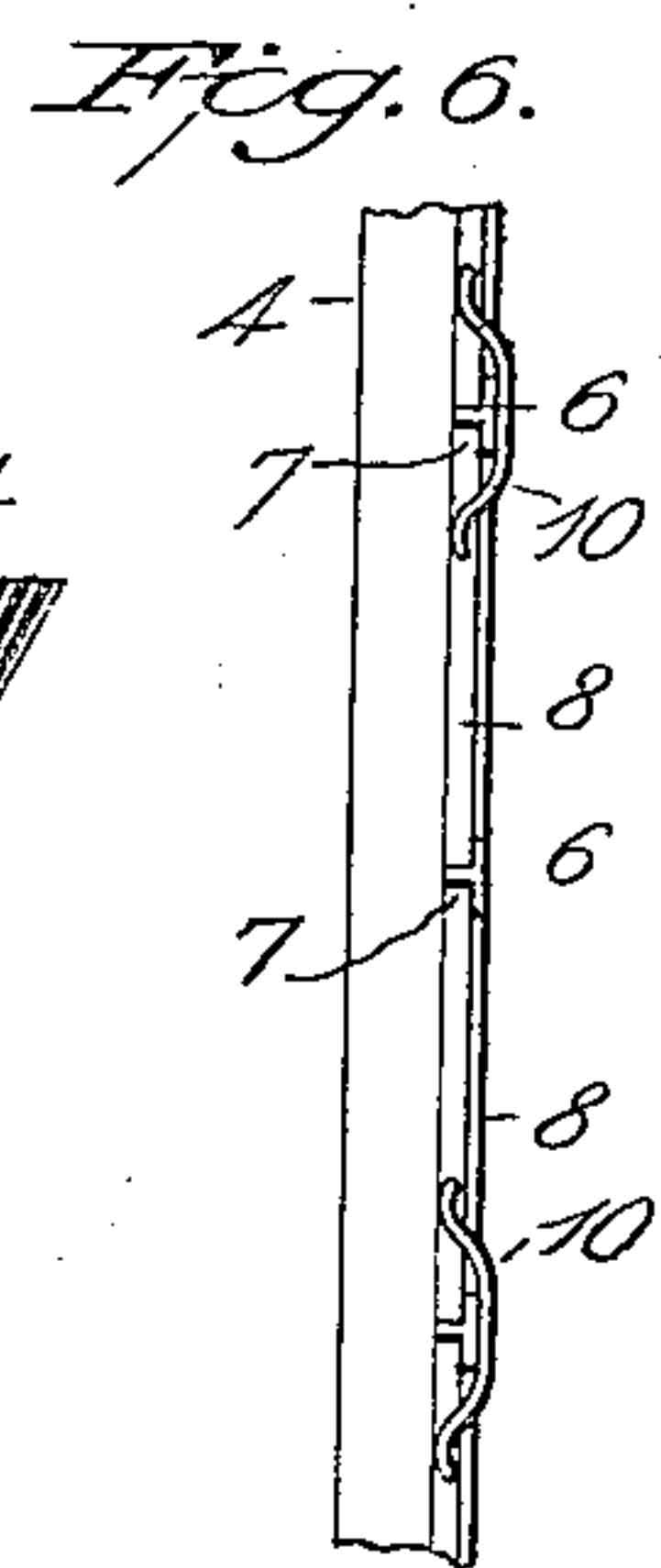
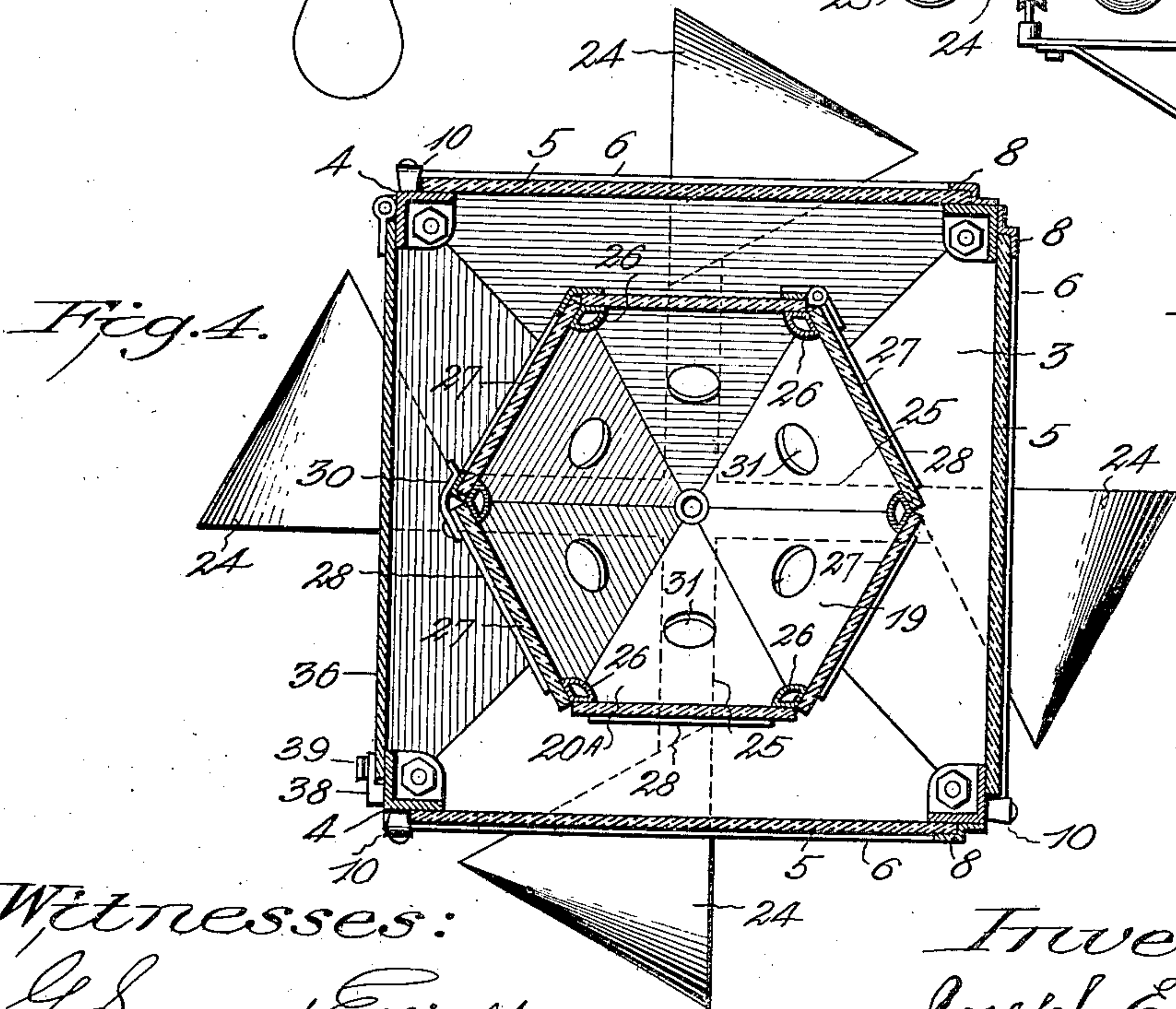
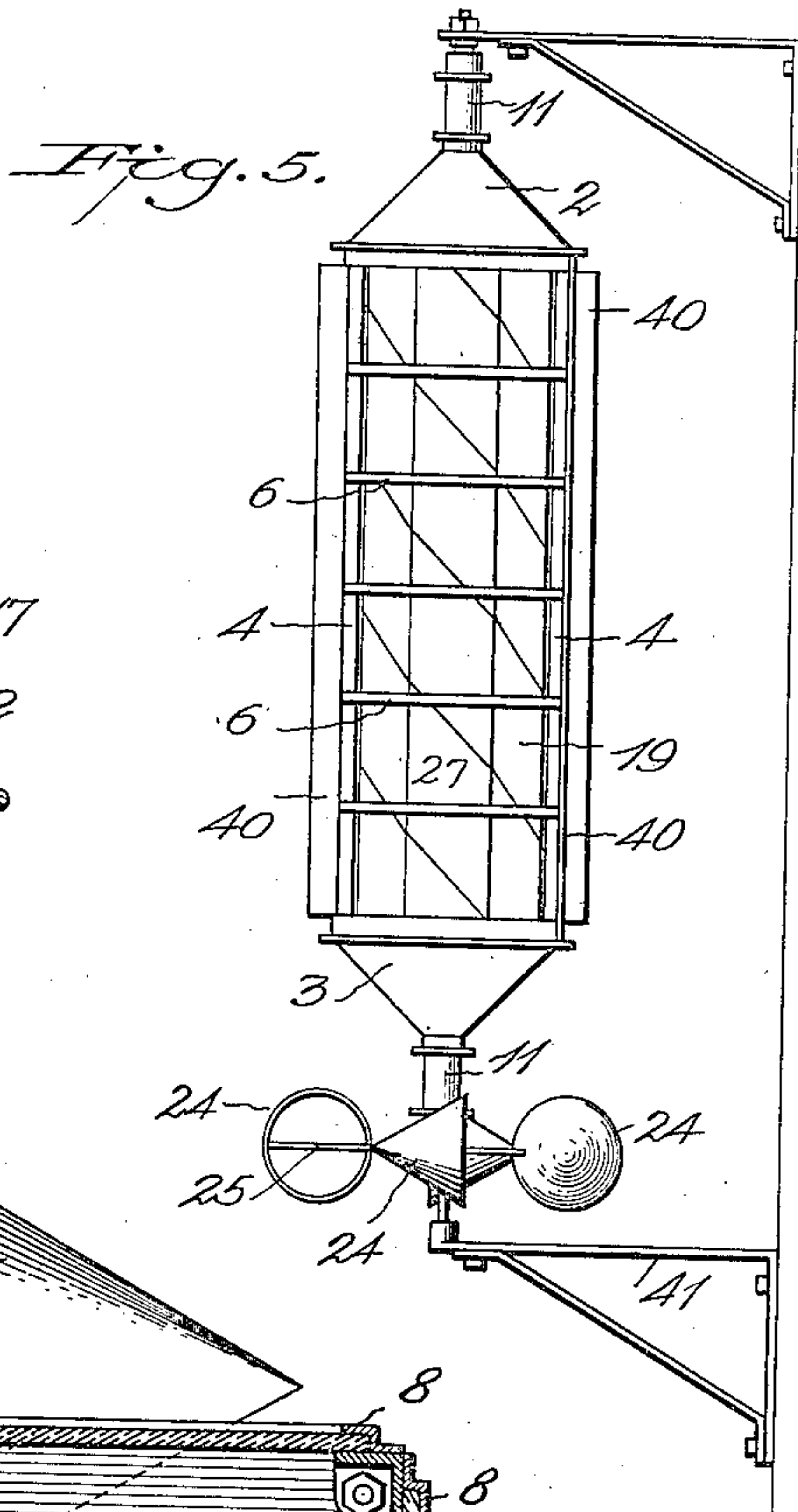
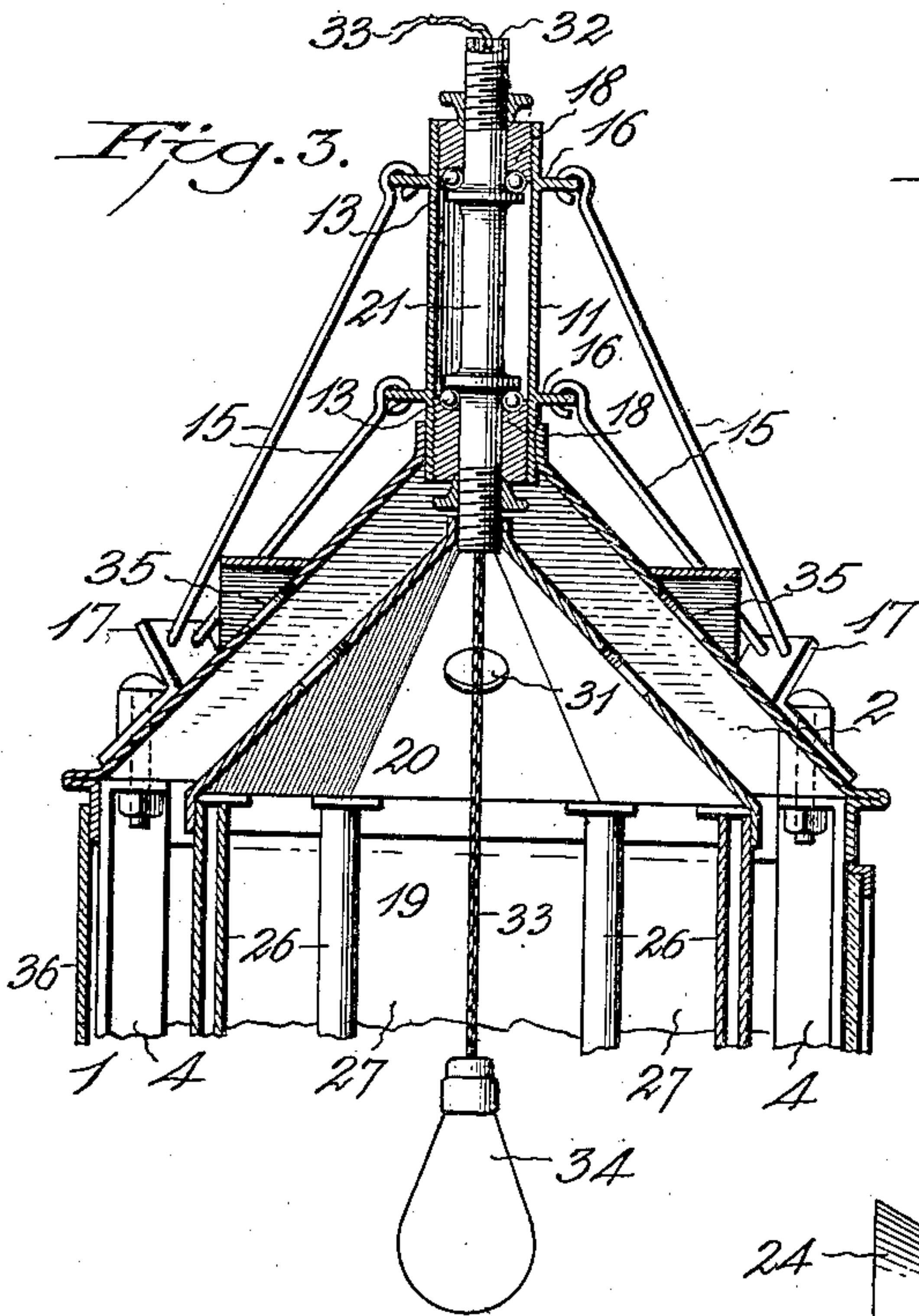
Attorney.

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2 SHEETS—SHEET 2.



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Inventor:  
Joseph E. Saunders

H. S. Bailey, Attorney.



# UNITED STATES PATENT OFFICE.

JOSEPH E. SAUNDERS, OF OVID, COLORADO, ASSIGNOR OF ONE-HALF TO LORENZ MUTHER, OF DENVER, COLORADO.

## REVOLVING ILLUMINATED SIGN.

935,236.

Specification of Letters Patent.

Patented Sept. 28, 1909.

Application filed February 19, 1909. Serial No. 478,778.

*To all whom it may concern:*

Be it known that I, JOSEPH E. SAUNDERS, a citizen of the United States of America, residing at Ovid, county of Sedgwick, and State of Colorado, have invented a new and useful Revolving Illuminated Sign, of which the following is a specification.

My invention relates to improvements in revolving illuminated signs, and the objects of my invention are: First, to provide a revolving illuminated sign that will enable the sign letters to be illuminated with different colors as the sign revolves. Second, to provide a revolving illuminated sign provided with an inner illuminated casing and an outer sign letter holding casing that are adapted to rotate in the same or in opposite directions. And third, to provide an interchangeable sign letter sign provided with a revolving illuminated casing, and that is provided with means by which it may be rotated by the pressure of the wind or by other suitable power.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which:

Figure 1, is a side elevation of the improved sign, some of the glass plates of the outer member or casing being removed. Fig. 2, is a side elevation of the revoluble lantern. Fig. 3, is an enlarged vertical sectional view through the upper end of the device. Fig. 4, is a horizontal sectional view thereof. Fig. 5, is a side elevation showing the sign so arranged that both the casing and the lantern are adapted to rotate. And Fig. 6, is a fragmental view, showing the slideways for the glass plates constituting the sides of the casing, and the clips which hold the said plates in the slideways.

Similar characters of reference refer to similar parts throughout the several views.

Referring to the drawings, the numeral 1, designates a casing, which may be made of galvanized iron or tin or other suitable metal or material. This casing comprises a pyramidal cap 2, a pyramidal supporting base 3, and corner supporting standards 4, which extend from the base 3 to the cap 2, and are either made integral therewith or are attached thereto. The sides of the casing are made of glass 5, or of some other transparent material, which is secured to the corner standards in any suitable manner. I preferably however, extend across the corner

standards, cross bars 6, and provide them with slideways 7, into which the edges of pieces of glass will fit and slide. These glass slideway strips are placed at a distance apart that will permit a piece of glass to be inserted between them, that is of ample width to form a letter or a figure thereon, of the sign word or group of figures it is desired to display on the sides of the casing, as an illuminated sign that can be seen through the sides of the casing.

An end clip 8 is also formed in the web portion of the standards, which is adapted to receive the inner end of each glass that the sign letters are formed on, and a suitable clip 10 or other fastening device is provided for securing the front end of each glass sign plate in the slideways against accidental displacement. The cap and also the base are provided with a central hub portion 11, which projects from their outer ends. The casing is adapted to be supported in either a vertical or a horizontal or an oblique position, by a bracket or brackets 12, which may be secured to the base shoe or to the cap or to both preferably at their corners, or if preferred, the casing may be depended from a bracket arranged to be clamped to the hub of the cap, as shown in Fig. 5. The hubs of the cap and base are arranged and adapted to contain ball bearings 13, and they may be supported from the cap and base. I preferably use, however, for these hubs, a hub constructed and arranged like the hubs of a bicycle, and extend truss wires 15 from flanged portions 16 to lugs 17, which are secured to the corner portions of the cap and base. These hubs are also provided with ball bearing race ways 18, which are similar in construction to those commonly used in bicycles and buggy axles.

Within the casing I mount a revolving lantern 19, which is preferably made with opposite pyramidal ends 20 and 20<sup>A</sup>, of the same degree of taper as the cap and base, from which spindles 21 and 22 project and are revolubly journaled in the ball bearings of the hubs of the cap and base. The spindle 22 at the lower end of the lantern projects through the lower hub and is threaded and provided with a nut 23.

I have preferably illustrated my revoluble illuminated electric sign arranged to be rotated by the power of the wind, and I preferably carry out this feature of my inven-



tion by attaching to this spindle 21 a plurality of wind catching cones 24, preferably illustrating four wind catching cones supported at the ends of arms 25, which are mounted on the spindle to stand at right angles to each other, and the cones are secured to the ends of the arms in any convenient manner.

The lantern is composed of the tapering end cap 20 and base 20<sup>A</sup>, and of corner supporting standards 26, which are made integral with or are connected to the cap and base cones of the revoluble lantern. The lantern is preferably hexagonal in cross section, and the sides of the lantern are made of glass plates 27, which are all secured to the standards and ends of the cap and base by slotted clips 28, except two, which are formed into an entrance door into the interior of the lantern, and which I hinge to one standard at one side, and secure it to an adjacent standard by a button clip 30, or other suitable door fastener. The cap and base of the lantern are provided with ventilating apertures 31.

The spindle of the cap is provided with an axial aperture 32, which extends through it from end to end, and is adapted to receive electric wires 33, which are supported by being attached to the cap or parts thereof. These wires extend into the lantern and one or more electric lights 34 are attached thereto, and suspended in the interior of the lantern, and are supported therein in any suitable manner. The lantern may be made with three or four or more sides. I preferably illustrate it with six sides, and while the glass sides may be left clear, I preferably make or paint them with two or three or more spirally arranged bands of different colors, preferably by painting these colors on the glass. The cap and the base of the outside casing are also provided with apertures 35, for ventilation, and to allow of a free circulation of air through the caps and bases of both the casing and the lantern.

The casing is provided with a hinged door 36, on the side facing the wall or edge of the building, to which it is connected. This door is hinged along one side to one standard, and is secured at the center of its opposite edge by a suitable latch 38, which is secured at one end to the standard and is movable in a loop keeper 39, at its opposite end to stand normally over the edge of the door, and hold it closed against the standard to which the keeper and latch are secured. When it is desired to rotate both the casing and lantern the outside casing is provided with wind vanes 40, which are positioned on the edges of the standards, and these wind vanes are made large enough to rotate the outside casing on the ball bearings that surround the spindle of the lantern, and in case it were desired to rotate this outside casing,

the supporting bracket 12 would be secured at one end to the outer end of the ball race spindle 21 of the ball race collar, and at its opposite end would be secured to the end or side of a building, which at the cap end of the casing is free to rotate in the hub and independent of the spindle of the cap end of the lantern, while the lower end of the spindle of the lantern, which projects below the hub, is pivotally journaled in a bracket 41 that is formed to receive it, and that extends to and is secured to the side or end of the building. When the outer casing is mounted in this manner, it may be rotated by the wind and the cones which operate the lantern may be set to rotate it in the opposite direction from the casing, or they may both be turned in the same direction, if desired.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

In a rotatable illuminated sign, the combination with a transparent casing, having conical cap and base end portions, a hub secured at one end to the apex of the conical base portion, flanges on the opposite outer end portions of said hub, projecting lugs on the larger or base end portions of each of said conical base portions, and a group of truss wires connected at one of their ends at different points around said hub's flanges and arranged to extend from said flanges to the lugs of the base portion of said conical bases, and adapted to bracingly secure said hub to said conical base portion, ball raceway bearings within said hubs, a plurality of slideways on the sides of said casing, a removable plate of glass in each slideway adapted to receive a sign letter, a glass door hinged on one side of said casing, means for locking said door in a closed position, a lantern within said casing provided with conical ends, a spindle in each end of said lantern, extending into and journaled in the ball bearings of said casing's hubs, the lower one of said spindles extending beyond one of said hubs, cross blades secured to the end portion of said spindles, conical cupped shaped wind catching cones secured to said blades and arranged and adapted to catch the wind and rotate said spindle and inner lantern, a door opening into said lantern, a light within said lantern, ventilating apertures in the conical ends of said lantern and casing, a supporting bracket secured to one of said conical base portion hubs, and a similar supporting bracket secured to the opposite conical base portion.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH E. SAUNDERS.

Witnesses:

G. SARGENT ELLIOTT,  
ADELLA M. FOWLE.