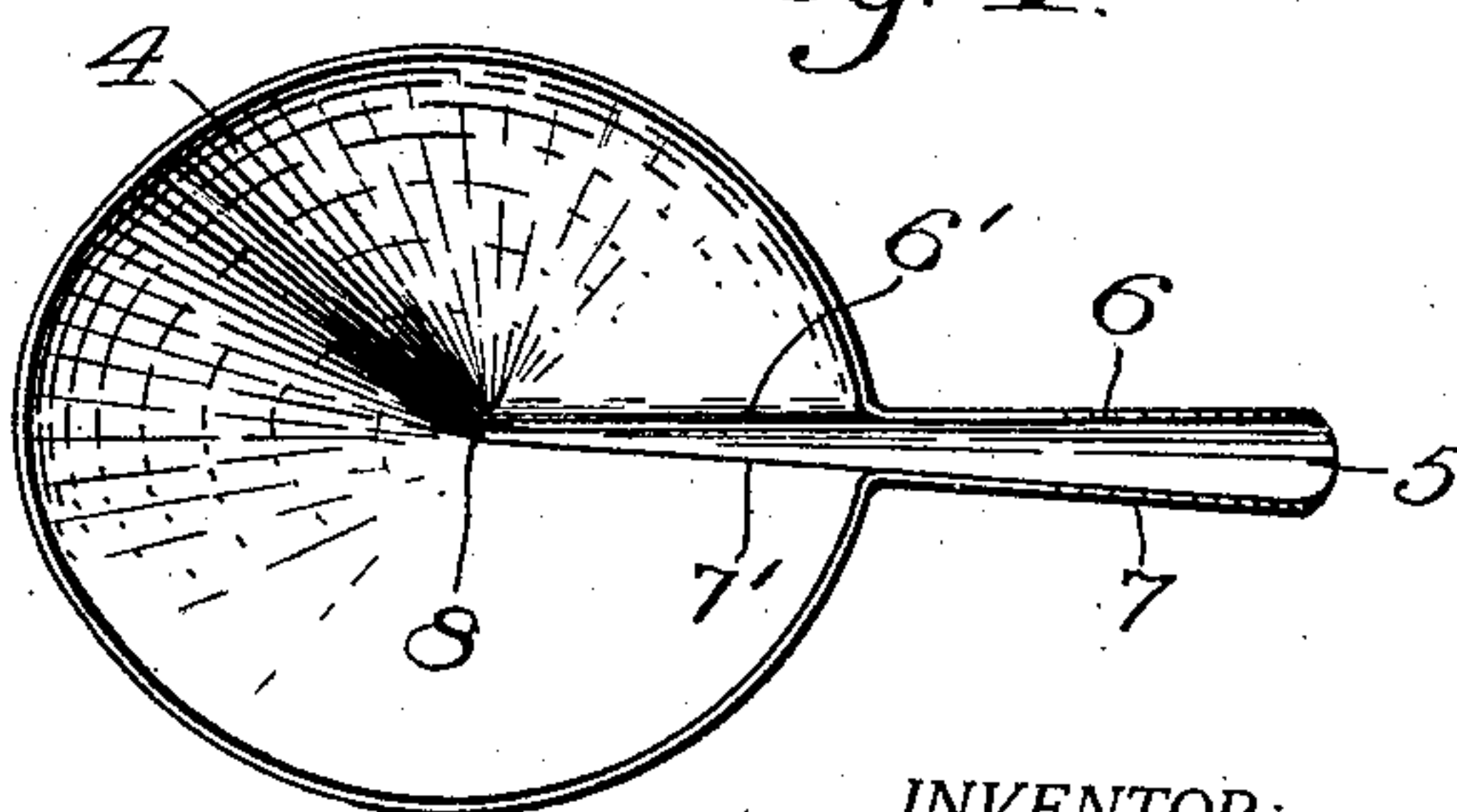


920,621.

2 SHEETS—SHEET 1.

Fig. 1.



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ADJUSTABLE CHIMNEY HOOD.
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2 SHEETS—SHEET 2.

Fig. 5.

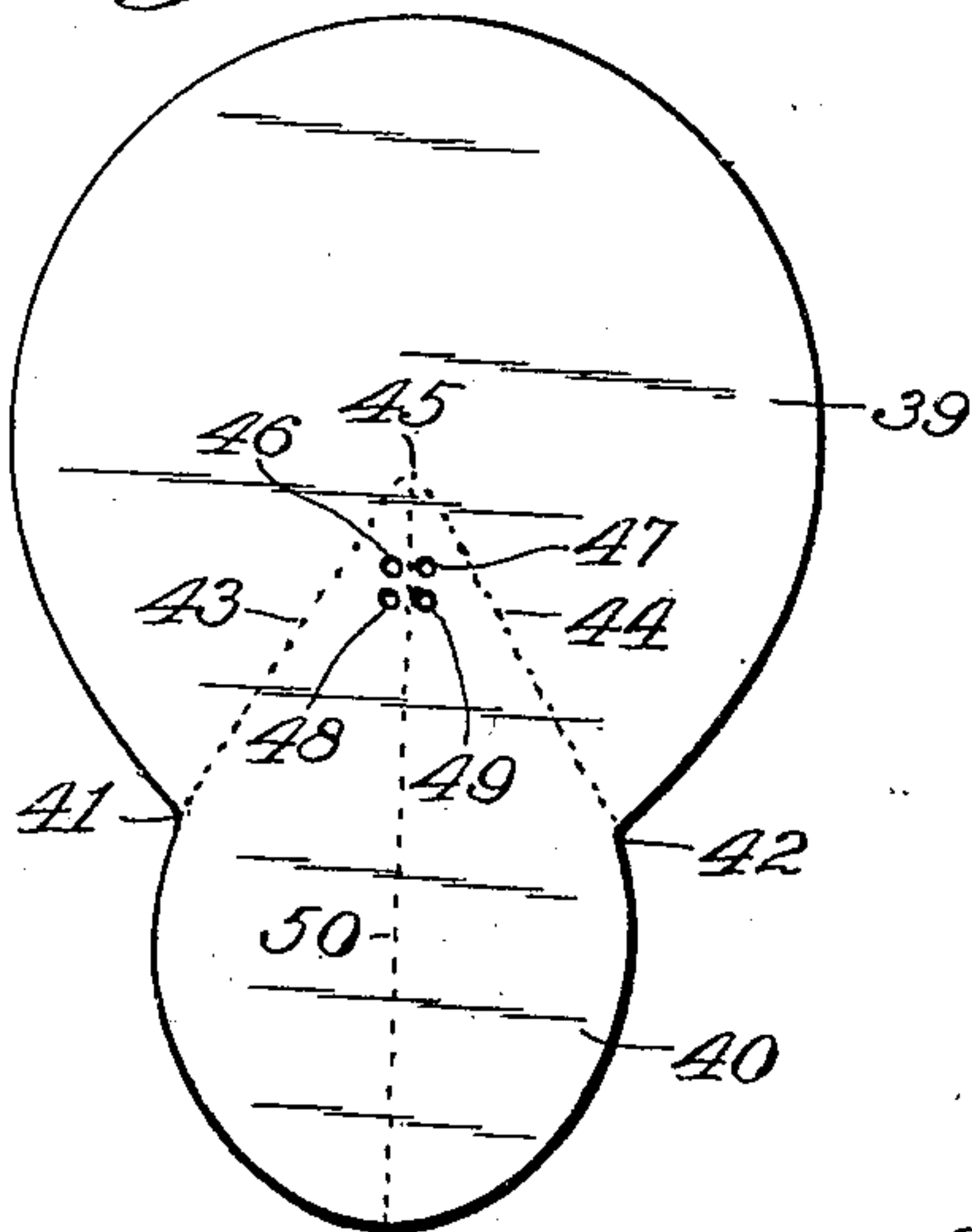


Fig. 6.

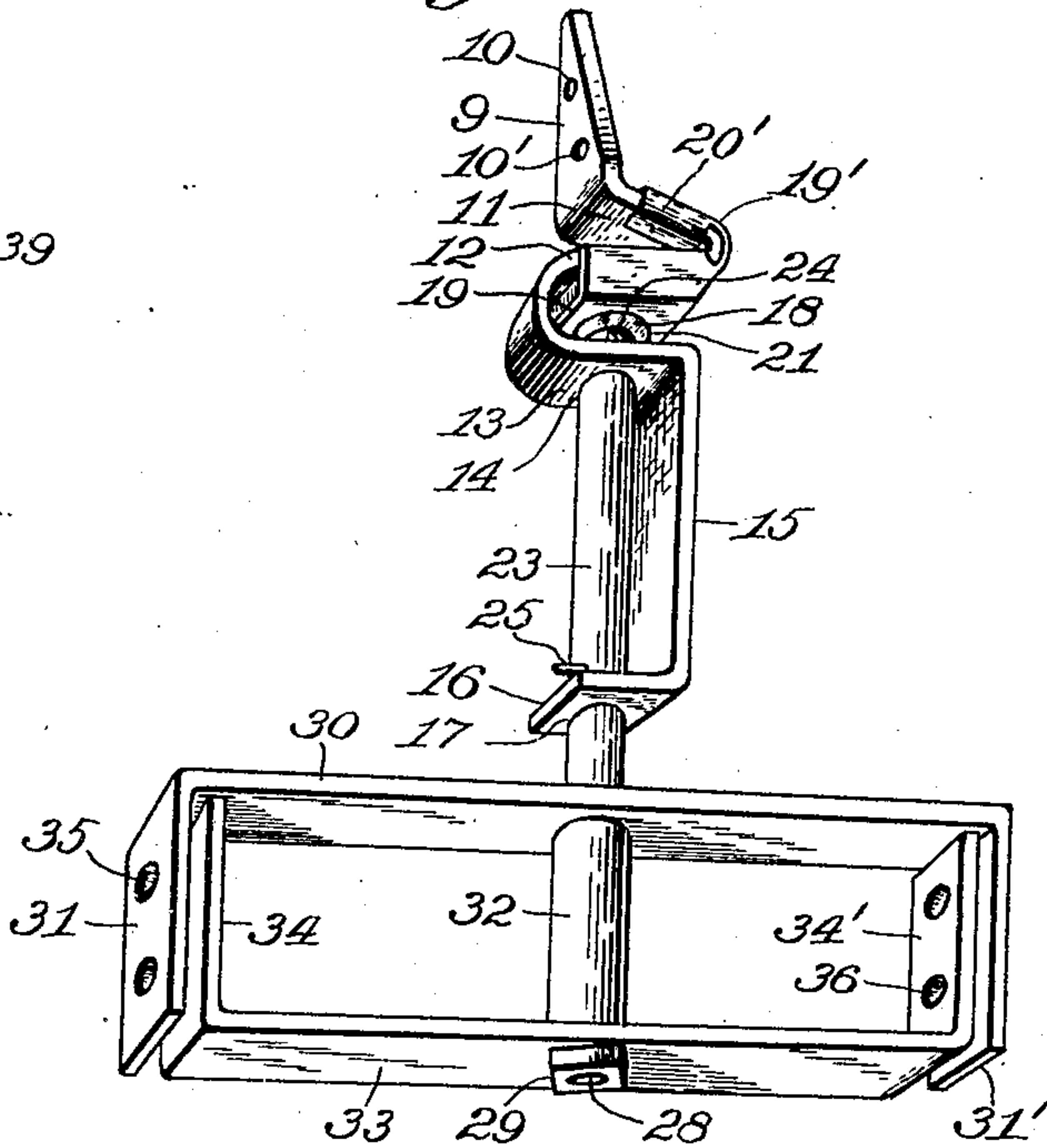


Fig. 7.

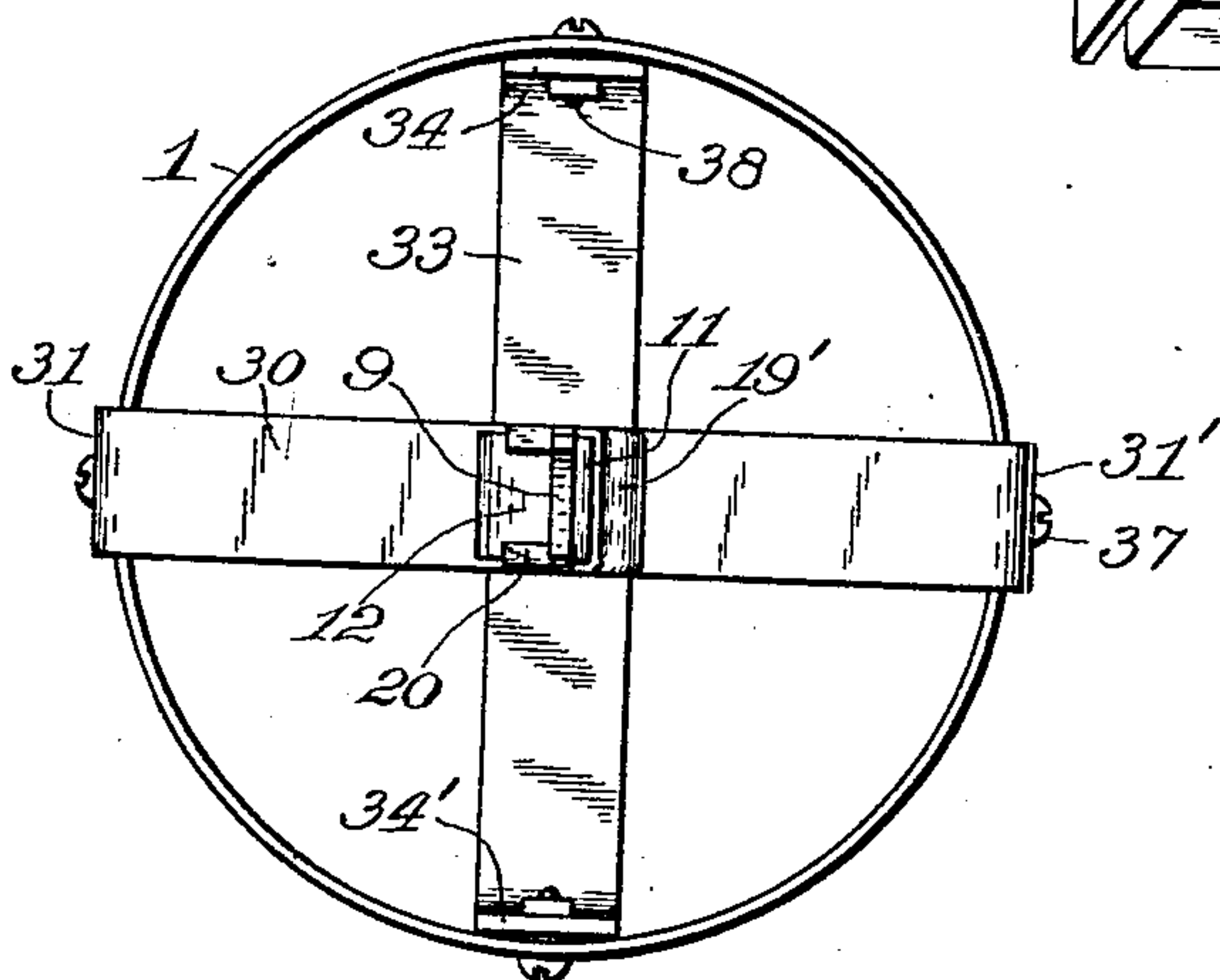


Fig. 10.

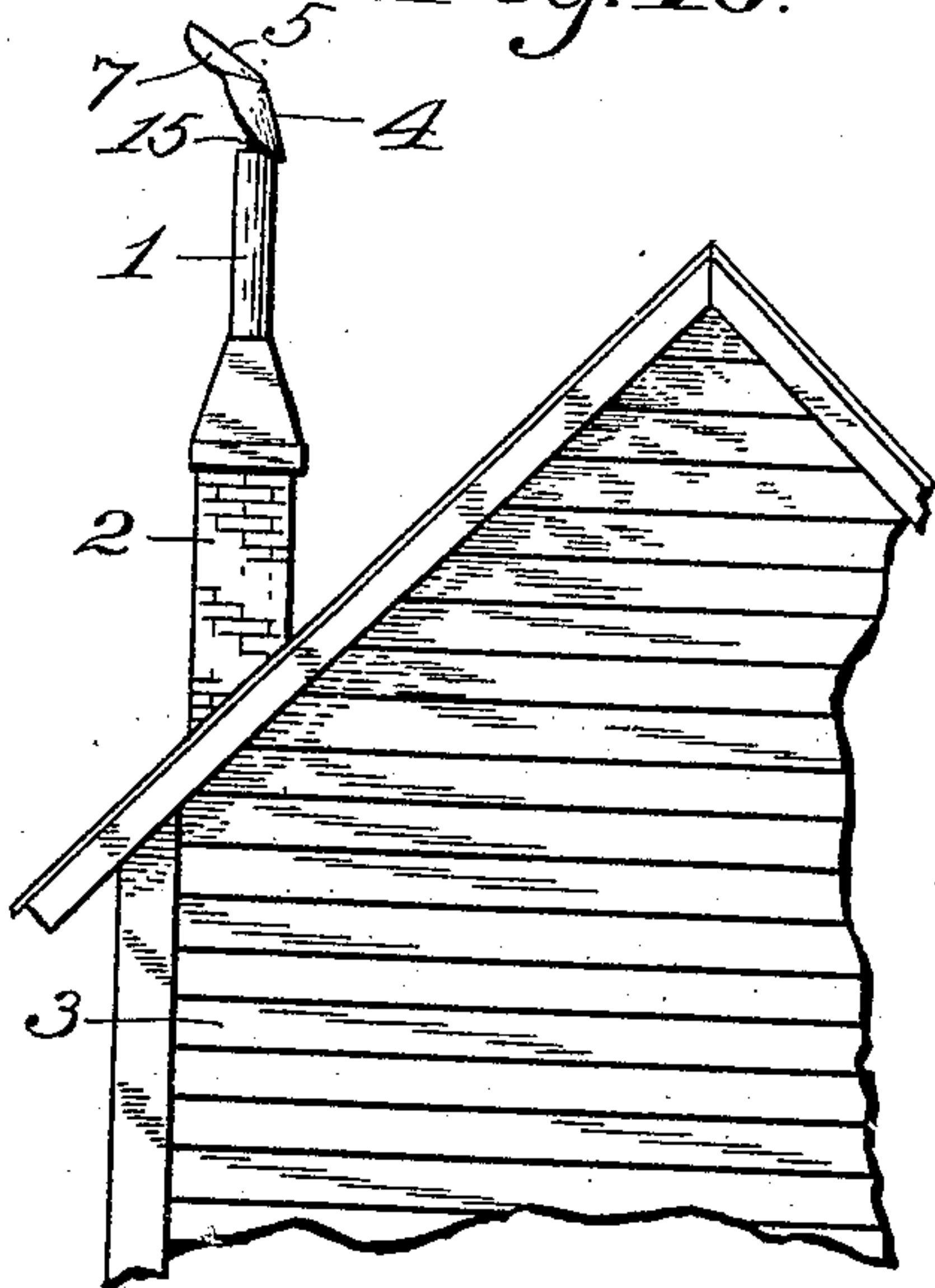


Fig. 8.

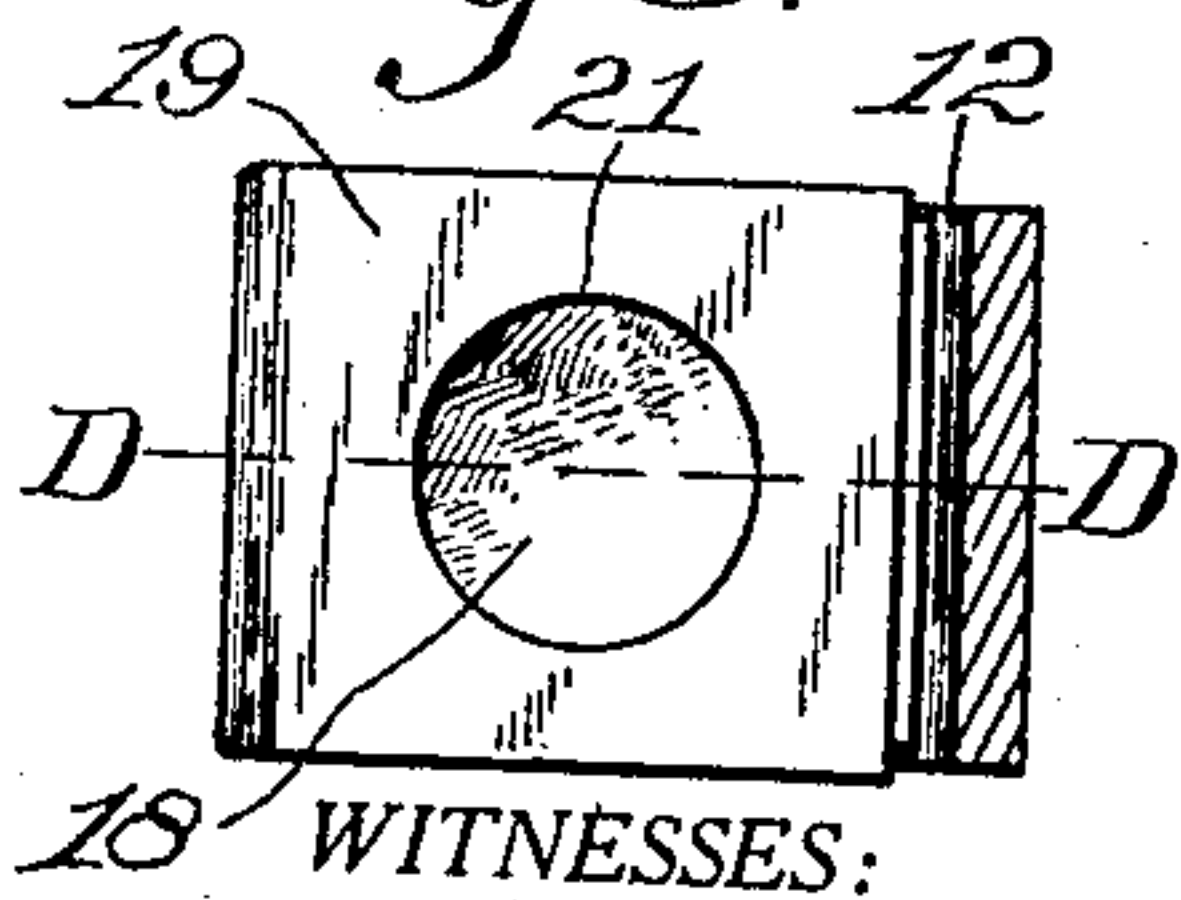
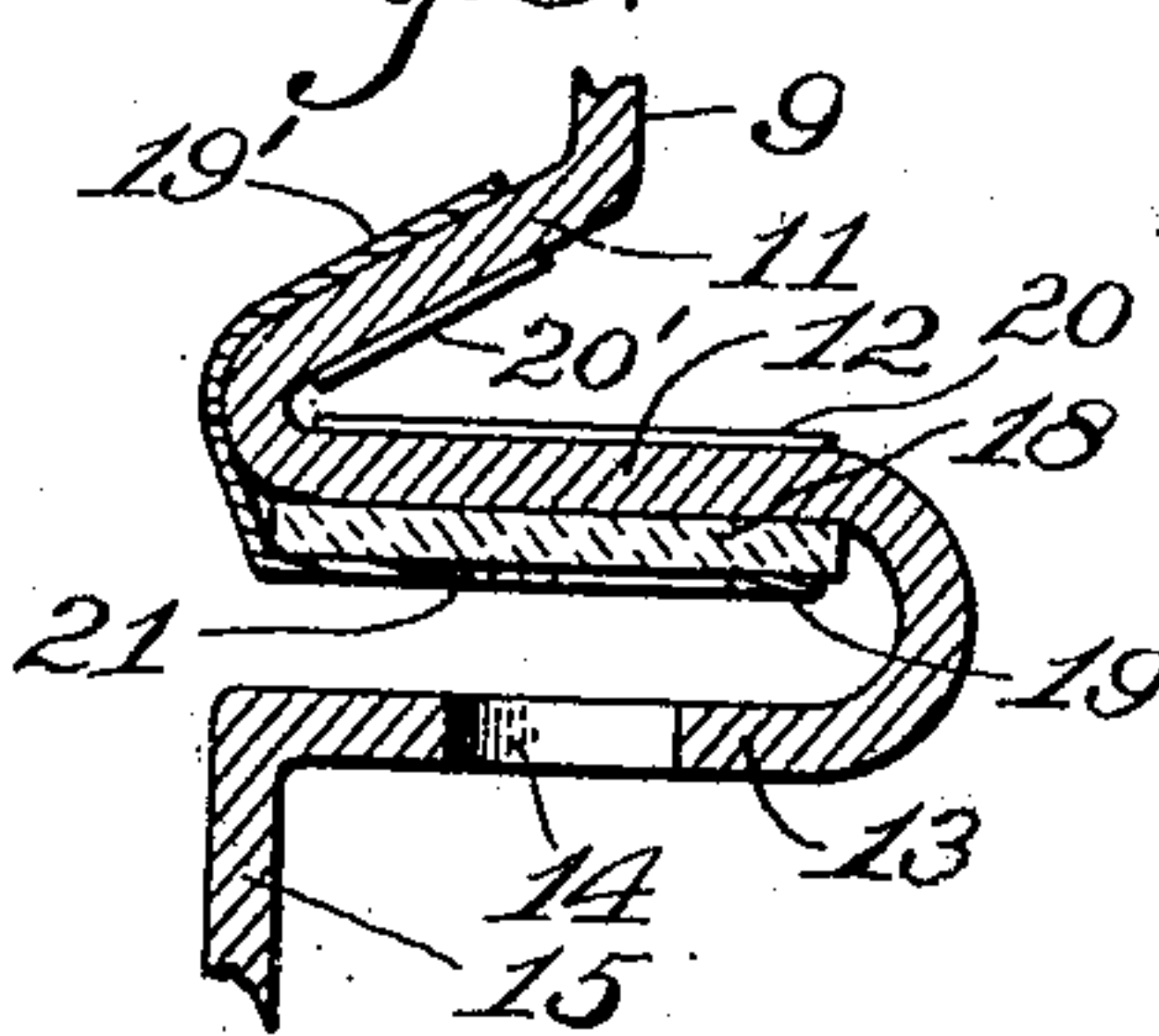


Fig. 9.



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ADJUSTABLE CHIMNEY-HOOD.

No. 920,621.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL NEIBURGER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Adjustable Chimney-Hoods; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to hoods or shields for chimney tops and especially to hoods that revolve with the changing air currents so that the wind will be prevented from blowing down the chimneys or preventing continuous draft through the chimneys.

The objects of the invention are to provide reliable, strong and durable hoods for chimney tops including the supporting devices thereof, and to provide apparatus of the above mentioned character that may be cheaply constructed and be convenient for shipment from factories to dealers.

With the above mentioned and other objects in view, the invention consists in certain novel parts, and in the combinations and arrangements of parts, comprised in an improved adjustable hood for chimneys, as hereinafter particularly described and defined in the claims comprising parts of this specification.

Referring to the drawings, Figure 1 is a fragmentary elevation showing the upper portion of a pipe comprising a part of the chimney top and having the improved hood mounted thereon and viewed at the rear thereof; Fig. 2, a vertical sectional view on the line A—A in Fig. 1; Fig. 3, a fragmentary sectional view on the line B—B in Fig. 2; Fig. 4, an inverted plan view of the hood proper and its vane; Fig. 5, a plan of the blank of which the hood proper and its vane is formed; Fig. 6, a perspective view of the supporting devices of the hood proper; Fig. 7, a top plan of the supporting devices arranged on the top of the pipe in a slightly different manner from that shown in the other figures; Fig. 8, a horizontal sectional view on the plane of the line C—C in Fig. 3; Fig. 9, a vertical sectional view at the plane of the line D—D in Fig. 8; and Fig. 10, a fragmentary elevation of a building showing

its chimney provided with the improved hood.

Similar reference characters in the different figures of the drawings indicate corresponding elements or features of construction.

In the drawings the numeral 1 indicates the upper portion of a pipe or chimney composed of metal and connected in Fig. 10 to the top of the brick chimney 2 that projects from the roof of the building 3. The hood 4 forms the shield or deflector for preventing the wind from blowing down the pipe and it is formed of sheet metal so as to be approximately scoop shaped or conical, and it has a vane formed integrally therewith and comprising an upper rib portion 5 from which extend two side parts or blades 6 and 7 joined to separate portions of the hood at the planes 6' and 7' respectively, at which the sheet metal is bent to permit of the two sides of the vane to stand opposite one to the other vertically and approximately parallel one to the other, the hood being tilted over when in operative position and the vane extending upward and outward from the upper portion of the hood in the usual manner. The lines of junction of the sides of the vane extend from the peripheral edge of the hood to the apex 8 thereof, the rib 5 extending from the apex.

The stem of the hood, which serves as a socket for supporting and guiding the hood rotatively so as to be automatically adjustable to the wind currents, is preferably composed mainly of a bar of flat iron or steel and bent suitably, and it comprises an upper plate 9 having bolt-holes 10 and 10' therein, the top of the plate being beveled so as to fit against the under side of the rib 5, which normally is inclined, the plate being arranged between the two sides 6 and 7 of the vane and has an oblique-angled part 11 to which is connected a bearing member 12 which, in its normal position, is horizontal and at right angles to the vertical plate 9, a guide member 13 being connected with the bearing member 12 and having a guide opening 14 therein, the member 13 being parallel to the member 12 and a short distance therefrom, a stem part 15 extending from the member 13 at right angles thereto so as to be normally vertical and having a guide member 16 on the lower end thereof that is par-

allel to the member 13 and has a guide opening 17 therein. A glass bearing plate 18 is placed against the under side of the member 12 and is held in place by a clasp 19 having flanges 20 that engage the member 12, the clasp having an arm 19' extending up against the top of the inclined part 11 and having flanges 20' that engage the under side of said part, the clasp having an aperture 21 therein opposite the guide opening 14. The glass bearing plate is preferable for the purpose, but it will be understood that the bearing plate may be composed of other material than glass, and in the cheaper appliances may in some cases be entirely dispensed with. The vane is secured detachably to the upper part 9 of the stem by bolts 22 and 22', so that the hood proper is supported by means of the vane and in a very substantial manner.

For supporting and guiding the stem of the hood a cylindrical post 23 is provided which is inserted through the guide openings 17 and 14 and has a pointed upper end 24 on which the bearing plate 18 bears, thus directly supporting the member 12, and the post has a cotter 25 inserted in a suitable hole therein above the guide member 16 to prevent the stem from being accidentally disconnected from the post, although if desired the cotter may be dispensed with in some cases when the hood and stem are sufficiently heavy to prevent them from being blown off. The lower portion 26 of the post is somewhat less in diameter than the main portion thereof and has a shoulder 27 and also a threaded end part 28 on which is a threaded nut 29.

A frame is provided for supporting the post and comprises a flat bar 30 through the middle of which the smaller portion 26 of the post is inserted in a suitable opening with the shoulder 27 engaging the top of the bar, the ends of the bar being turned over and forming downwardly extending arms 31 and 31' adapted to engage the outer side of the pipe 1. A thimble 32 is placed on the part 26 of the post against the bar 30, and another relatively shorter bar 33 is placed on the part 26 against the thimble and secured by the nut 29, the bar 33 having a suitable opening in the middle thereof to receive the threaded end 28, and the ends of the bar 33 are turned over and form upwardly extending arms 34 and 34', the arms of the bar 30 having bolt holes 35 and the arms of the bar 33 having holes 36 therein, and in attaching the frame to the pipe the bar 30 rests on the top of the pipe and the bar 33 is arranged on the inner side of the pipe with its arms opposite to the arms of the bar 30 and the arms are secured to the pipe by bolts 37. The frame bars are sufficiently narrow to permit of there being ample draft passages at the sides thereof through the pipe.

In some cases when the pipe 1 is of relatively large diameter the frame bar 33 may be turned so as to be at right angles to the vertical plane of the bar 30, as in Fig. 7, and connected to the pipe by bolts 38.

The blank for forming the hood and its vane of one sheet of metal comprises an approximately oval part 39 of which to form the hood and an integral part 40 of which to form the vane, the main portion of the part 40 being slightly broader than the portion thereof at the points 41 and 42 from which it extends from the part 39. The dotted lines 43 and 44 extending from a point 45 approximately at the middle of the part 39 to the points 41 and 42 indicate the lines on which the plates are bent when the part 39 is dished. The plate 39 has four bolt holes 46, 47, 48, 49 arranged between the lines 43 and 44 and near the middle portion 45, these holes receiving the bolts 22 and 22' that extend through the holes 10 and 10' in the plate 9. The sides of the vane are formed by bending the part 40 on the broken line 50.

It should be understood that while the sides 6 and 7 of the vane are shown as being somewhat separated at their rearward edges which is for the purpose of enabling the hoods to be conveniently nested for shipment, the sides of the vane may readily be pressed closer together when attaching them to the plate 9. It will be clear also that the different parts of the apparatus may be most conveniently packed for shipment and readily connected together when mounting the hood.

In practical use the wind currents striking the rib 5 of the vane and the sides thereof will operate as usual to adjust and readjust the hood so as to deflect the air currents off from the top of the pipe 1, and the gases emitted from the pipe will not materially deteriorate the mountings of the hood, especially when the glass bearing plate 18 is employed which will operate substantially as a non-corrosive anti-frictional bearing, and the hood will prevent the rain from driving onto the guide members 13 and 16 so that the open work form of socket stem cannot in any case stick fast to the post 23 on account of corrosion or soot.

Having thus described the invention, what is claimed as new, is—

1. In a chimney-hood, the combination of a vertical post, and a stem comprising two horizontal guide-members that have guide-openings therein receiving the post, a main stem-member connected to the two guide-members, a horizontal bearing-member connected with one of the guide-members and supported on the top of the post, said bearing-member having a stem-part extending therefrom and above the top thereof, and a plate extending vertically from the stem-part.

2. In a chimney-hood, the combination of a vertical post, and a stem comprising a member to support a shield and having a bearing-member connected therewith for its support, a bearing-plate beneath the bearing-member engaging the post, a clasp engaging the bearing-plate and the bearing-member and securing one to the other, a guide-member connected to the bearing-member and extending below it and having a guide-opening therein through which the post extends, and a main stem-member connected with the guide-member and having a guide-member thereon that has a guide-opening therein through which the post extends.

3. In a chimney-hood, the combination with a shield and a vane, of a frame comprising two apertured frame-bars each having two arms on opposite ends thereof, the frame-bars being spaced apart one above the other one, the arms on the lower one of the frame-bars extending upward therefrom, the arms on the upper one of the frame-bars extending downward therefrom and spaced farther apart than the arms on the lower frame-bar to receive a chimney-pipe between the arms of the two frame-bars, each arm having two apertures therein registering with the apertures of the other arms, a post extending through the two frame-bars and having a shoulder engaging the upper one of the frame-bars, a thimble on said post between the frame-bars and engaging the inner sides thereof, a nut on the post engaging the under side of the lower one of the frame-bars, and a socket on said post supporting the shield and the vane.

4. In a chimney-hood, the combination with a frame and a hollow vane, of a post secured to the frame, a stem having two guide members receiving the post and having also a bearing-member connected with one of the guide-members and supported on the top of

the post, a main stem-member connected to the two guide-members, said bearing-member having an oblique-angled stem-part connected thereto, and a plate extending vertically from the oblique-angled part and into the hollow vane, and devices connecting said plate to the vane.

5. In an adjustable chimney-hood, an improved stem for rotatively connecting a shield to a supporting post, said stem comprising a plate to be connected with the shield, a bearing-member, an apertured clasp secured to the bearing-member, a bearing-plate between the clasp and the bearing-member to be engaged by the post, two guide-members that are parallel to the bearing-member and have each a guide-opening therein to receive the post, and a main stem-member connected to the guide-members and extending at right-angles thereto.

6. In a chimney-hood, the combination of two apertured bars, a thimble between the two bars, a stem comprising a beveled plate, a bearing-member connected with the plate, a bearing-plate, a clasp securing the bearing-plate to the bearing-member, a guide-member having a guide-opening therein and connected with the bearing-member, and a main stem-member connected with the guide-member and having a guide-member thereon that has a guide-opening therein; and a post extending through the bars and the thimble and secured thereto, said post extending through the guide openings that are in said guide-members and engaging said bearing-plate, with a vane secured to said beveled plate, and a shield carried by said vane.

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

SAMUEL NEIBURGER.

Witnesses:

P. A. HAVELICK,
E. T. SILVIUS.