

No. 666,299.

Patented Jan. 22, 1901.

J. WOOD.
CHIMNEY TOP.

(Application filed Apr. 7, 1900.)

(No Model.)

Fig. 1

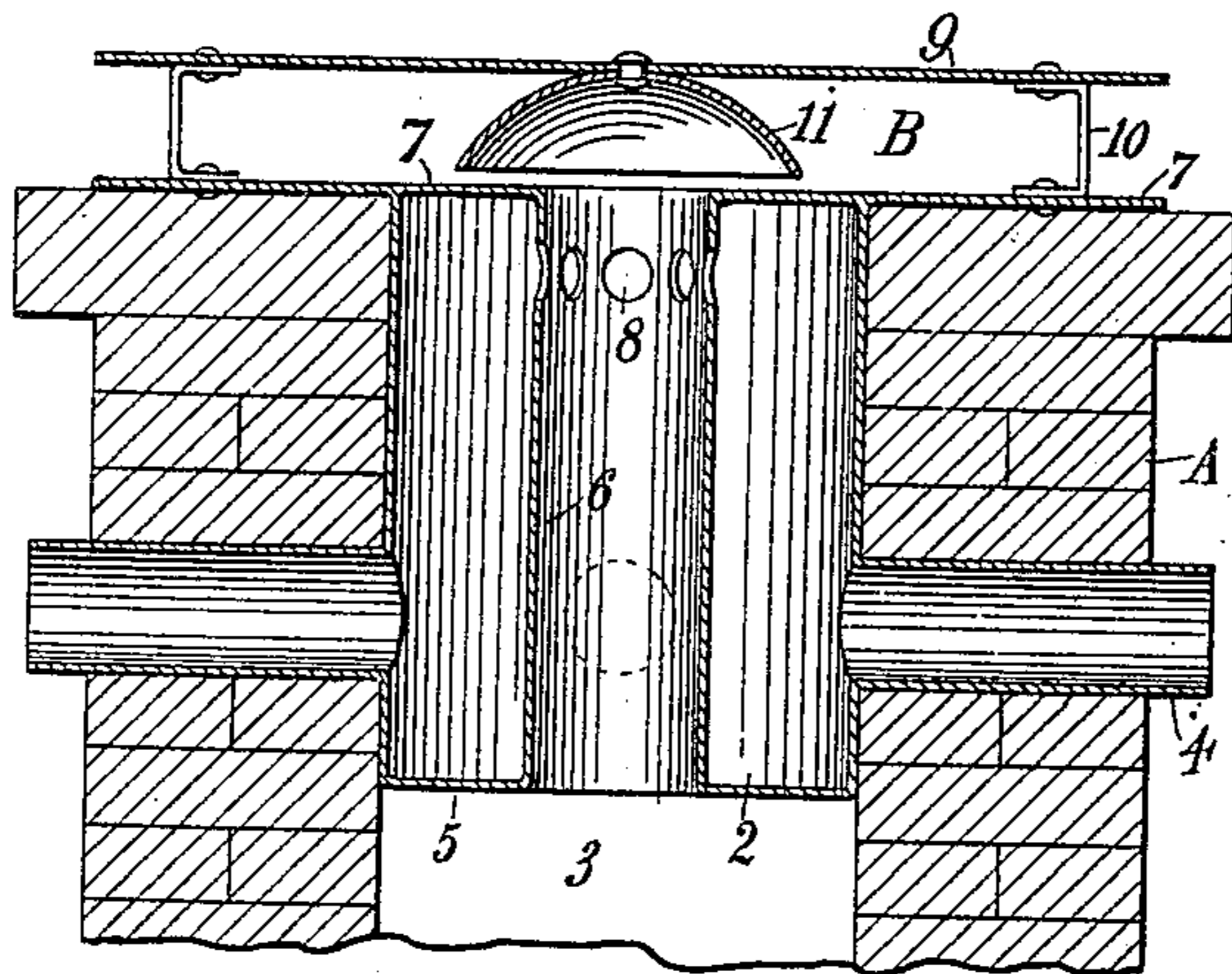


Fig. 2

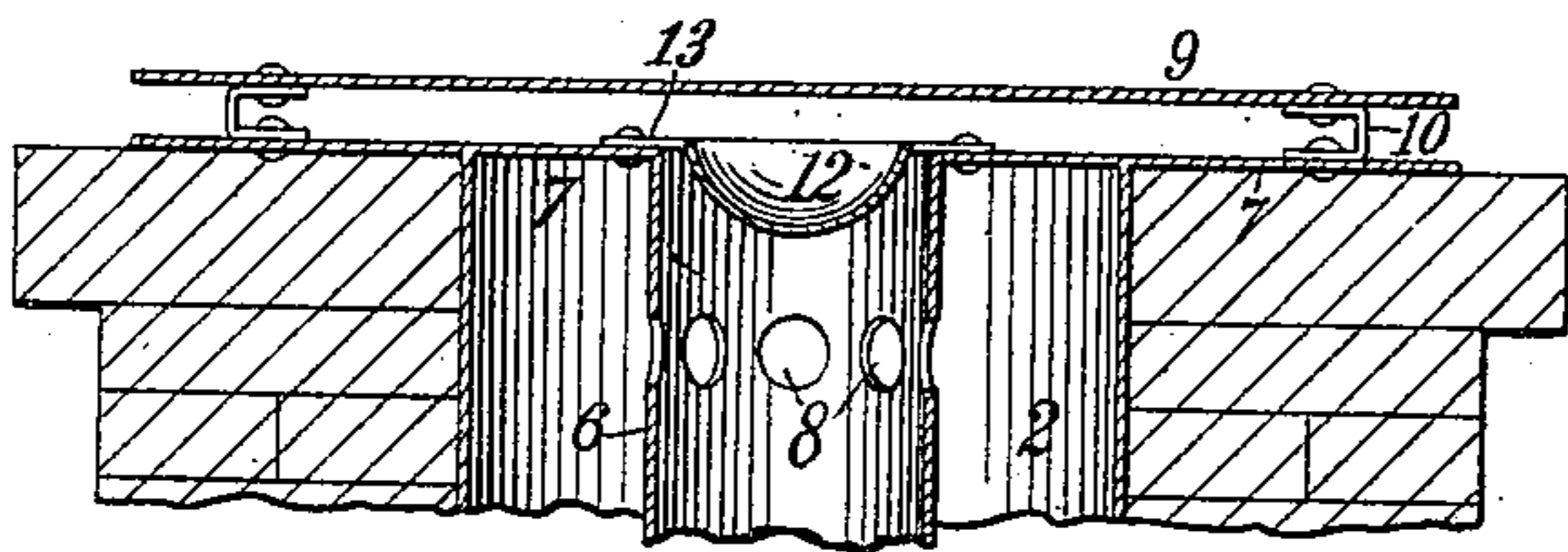
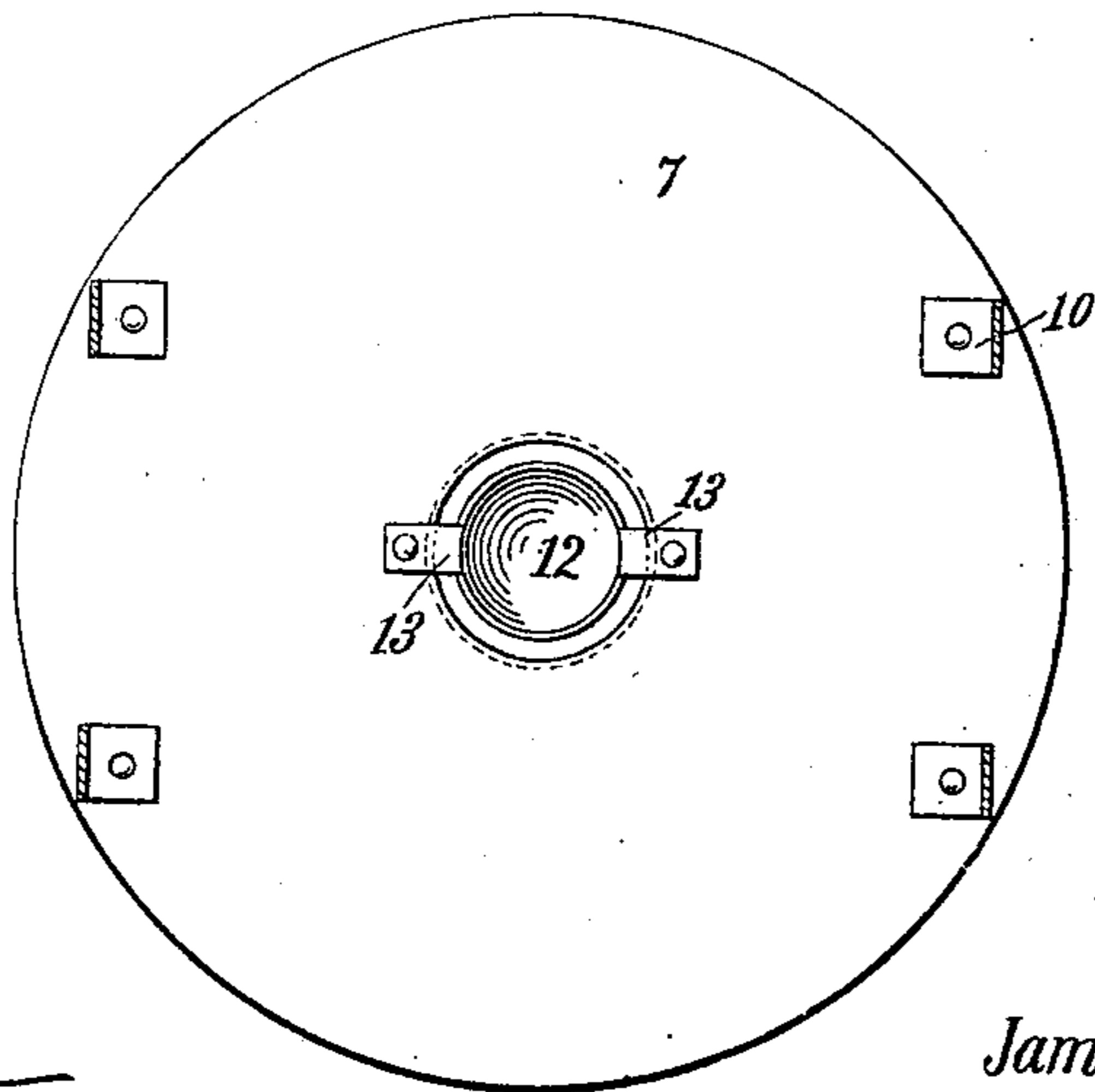


Fig. 3



Witnesses:

Rajahail Ketter

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UNITED STATES PATENT OFFICE.

JAMES WOOD, OF NOROTON, CONNECTICUT.

CHIMNEY-TOP.

SPECIFICATION forming part of Letters Patent No. 666,299, dated January 22, 1901.

Application filed April 7, 1900. Serial No. 11,933. (No model.)

To all whom it may concern:

Be it known that I, JAMES WOOD, of Noroton, county of Fairfield, State of Connecticut, have invented a new and useful Chimney-
5 Top, of which the following is a specification.

My invention relates to improvements in chimneys, its purpose being to provide an improved construction of the chimney-top, whereby back drafts may be prevented irre-
10 spective of the direction of wind-currents; and it consists in the features of construction hereinafter particularly described and claimed.

In the accompanying drawings, forming part
15 of this specification, Figure 1 is a vertical section of the top of the chimney embodying my invention. Fig. 2 is a sectional detail of a modified construction of a part of the structure, and Fig. 3 is a detailed plan view of a part
20 of Fig. 2.

In the drawings, A represents the brick walls of an ordinary chimney, and B is my improvement fitted to and forming a part of the same. This is made up of a sheet-metal
25 draft chamber or drum 2, fitted to the flue 3 of the chimney, having inlet air-pipes 4, radiating from the drum and extending through the walls A. The lower end of the drum 2 has an annular head 5, closing the drum ex-
30 cepting as to the central opening, with which opening is connected the inner flue 6, extending axially through the drum, and the larger upper annular head 7 of the drum, which extends laterally beyond the drum and rests
35 upon the bricks of the chimney. Near the top of the drum the flue 6 is provided with a series of openings 8, serving to admit to the flue the air which has entered through the pipes 4. Arranged above the drum is a plate
40 or disk 9, parallel with and connected to the head 7 by means of standards 10. Suspended from the center of the disk 9 is a hood 11, preferably the segment of a hollow sphere and adjacent but not in contact with the head
45 7 and with its lip in a plane parallel therewith.

In the modified construction shown in Fig. 2 the hood 11 is dispensed with and a cup or similar segment of a hollow sphere 12 is sus-
50 pended in the top of the flue 6, with its edge or lip preferably in the plane of the head 7, by means of radiating arms 13, secured to the

head 7 with a sufficient annular space between the edge of the cup and the walls of the flue to permit of the escape of the smoke and gases from the chimney.

In use the heated walls of the chimney and
55 of the flue 6 serve to draw air in through the flues or pipes 4 and the openings 8, which passes thence upward with the smoke and assists the draft of the chimney. Any down-
60 draft by reason of air-currents or wind around the chimney is prevented by means of the hood 11 or cup 12, as the case may be. Air-currents over the top of the chimney in any
65 direction pass freely between the head 7 and plate 9, but are prevented plunging down the flue 6 by reason of the hood 11 or cup 12, which serves to draw or deflect the air away
70 from the flue, producing a suction which assists the draft or circulation of the smoke and gases through the flue.

I claim—

1. Means for preventing back drafts in chimney-flues from cross air-currents, consisting of a flat plate arranged horizontally
75 above the flue-outlet, and a segment of a hollow sphere suspended from said plate centrally above the flue-opening and having its lip or edge parallel with said plate.

2. In combination with a chimney, a pair
80 of flat interspaced plates arranged horizontally above the same, the lower plate having an opening therethrough connecting with the chimney-flue, and a segment of a hollow sphere suspended from the upper plate cen-
85 trally above the opening in the lower plate, whereby an air-current from any point of the compass is directed horizontally across the top of the chimney and over and around said
90 segment, substantially as and for the purpose specified.

3. In combination with a chimney, a drum arranged in the flue thereof having a central, axial flue therethrough, the ends of the drum being closed excepting at the flue-openings,
95 inlet-pipes radiating from said drum and extending through the walls of the chimney, the drum being in communication with said inner flue near the top of the drum, a horizontal disk or plate arranged above the top of
100 the drum and interspaced therefrom, and a cup arranged at or near the flue-opening its

lip parallel with said plate, and having a space around the lip for the escape of the smoke from the flue underneath said plate.

4. The combination with a chimney, of a
5 drum serving as a draft-chamber arranged in
and filling the flue at the top of the chimney,
and having heads with a central opening an
inner flue connected with the opening in the
lower head and extending axially upward in
10 the drum, and having communication with
said drum at or near its top, air-inlet pipes ra-
diating from said drum near its bottom and ex-
tending through the walls of the chimney, a
disk or plate arranged above the top of the
15 chimney and spaced therefrom, and a spheric-
ally-curved hood supported from said plate
over the inner flue-opening with its lip or
edge parallel with said plate.

5. In combination, the flue, the inclosing
20 drum having lateral inlet-pipes near its bot-

tom, said flue having lateral communication
with the drum near its top, the plate ar-
ranged in a plane at right angles with the flue
and above the outlet thereof, and the in-
verted cup suspended from said plate above 25
said outlet.

6. In combination, the drum, the radiating
inlet-pipes near the bottom thereof, the axial
flue extending through said drum having lat-
eral openings near the top of the drum, the 30
interspaced parallel plates at the top of the
drum into the space between which the axial
flue opens, and the inverted cup suspended
from the upper plate above the flue-opening.

Signed at New York city, New York, this 2d 35
day of April, 1900.

JAMES WOOD.

Witnesses:

T. D. MERWIN,

ROBT. B. BOYLE.