

(No Model.)

J. KEANE.
CHIMNEY CAP.

No. 483,384.

Patented Sept. 27, 1892.

Fig. 1.

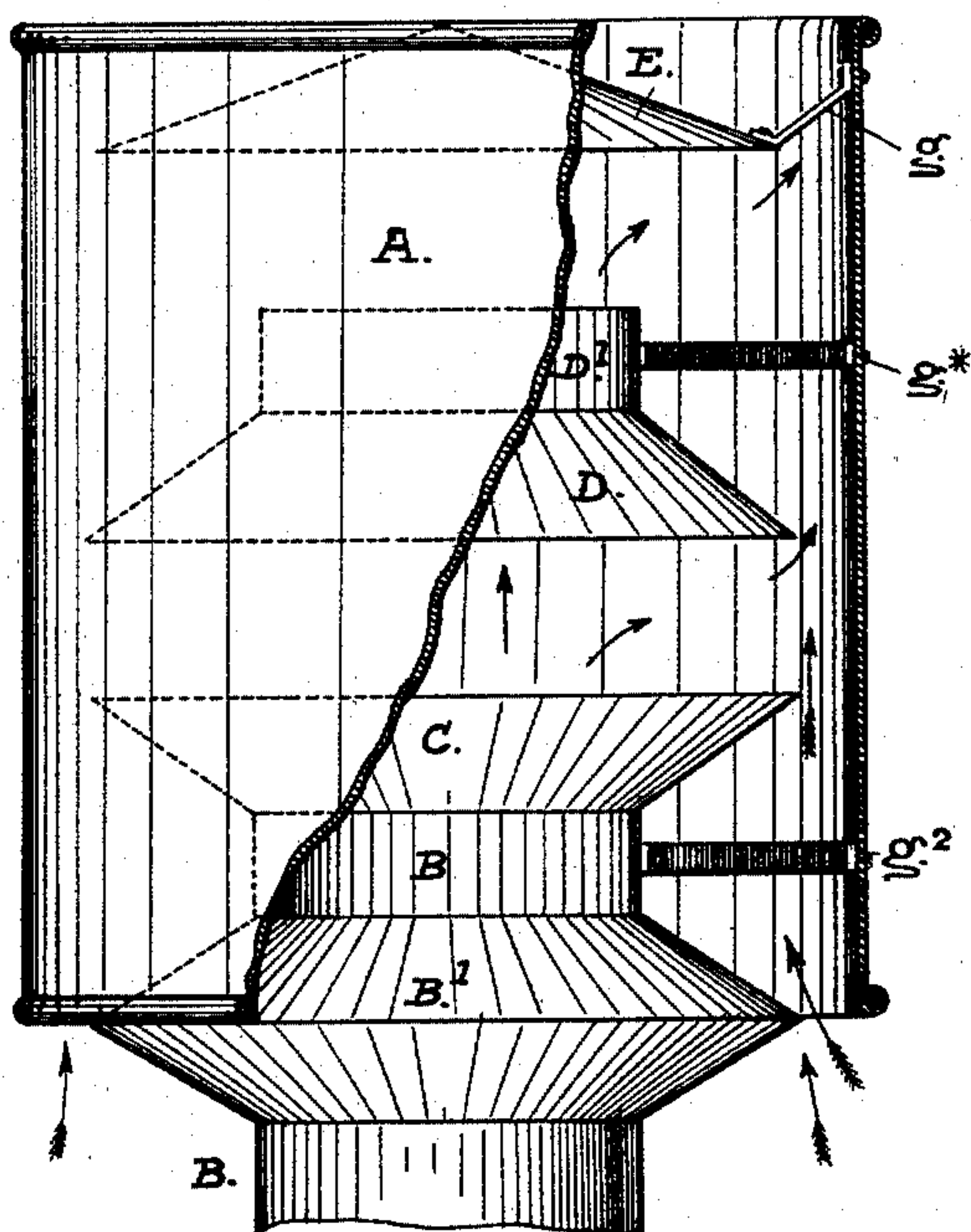


Fig. 2.

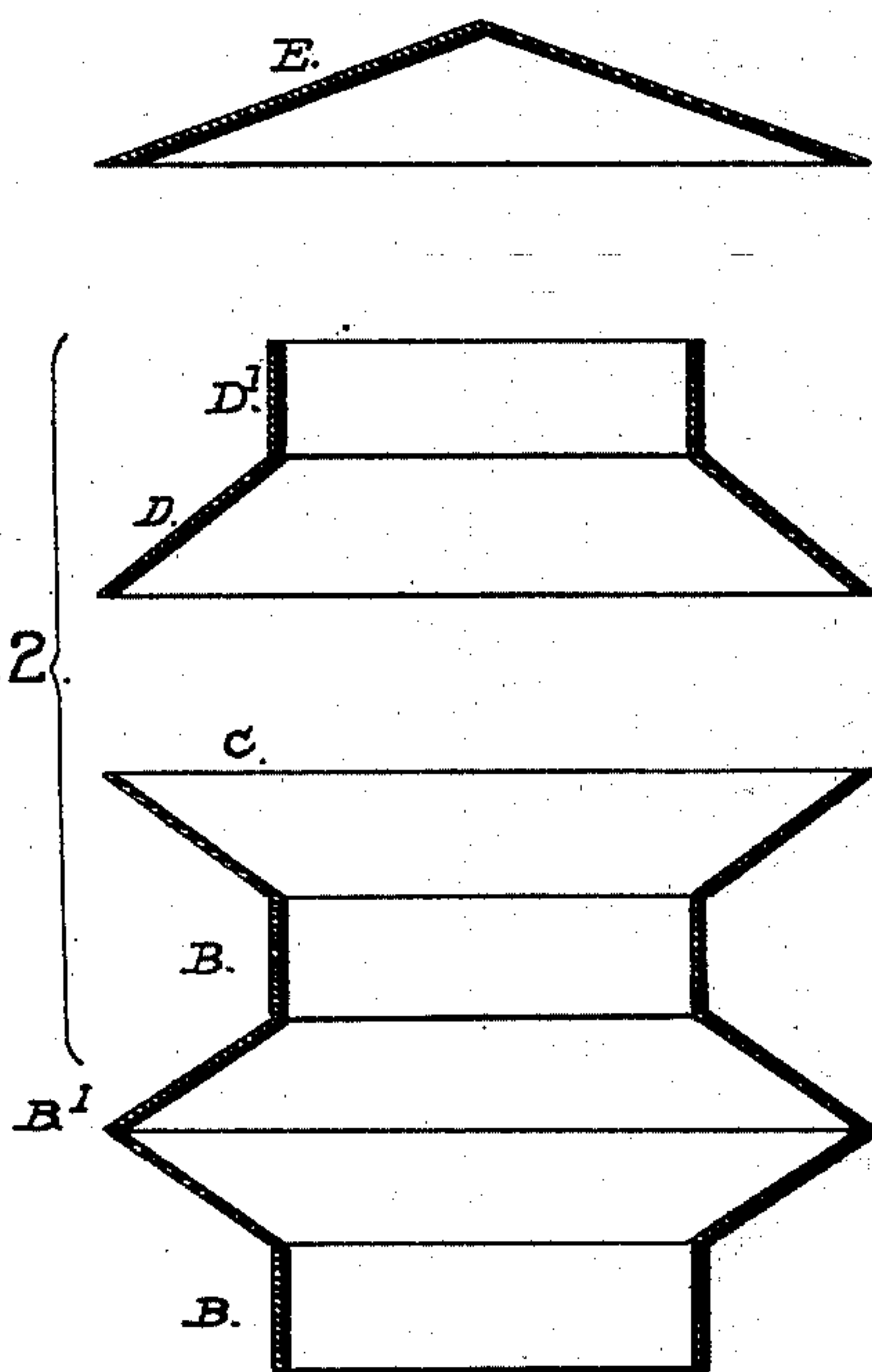
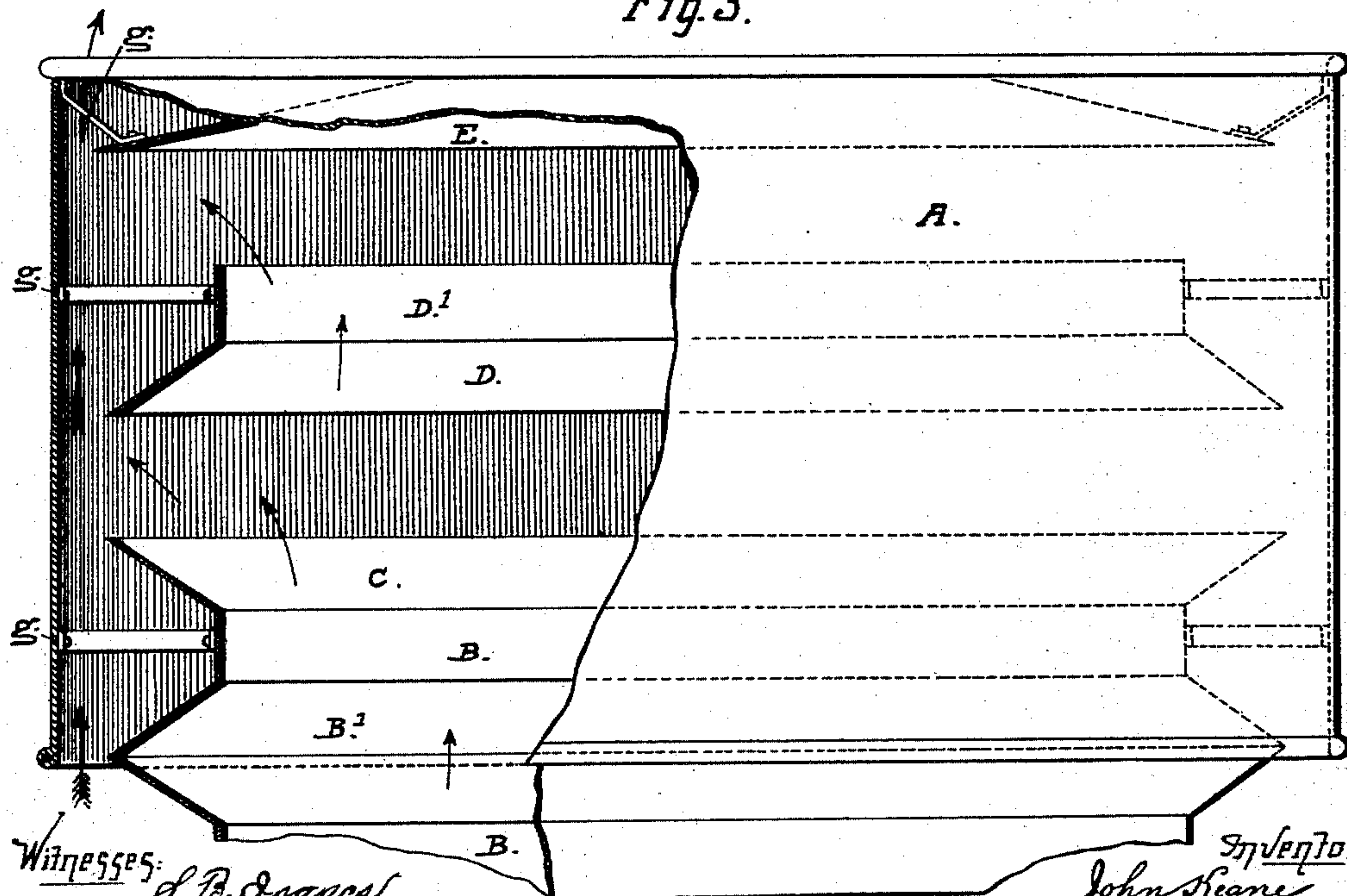


Fig. 3.



Witnesses:
J. B. O'Connell
John Kelly

Inventor:
John Keane
By Dennis G. Brown, his Atty.

UNITED STATES PATENT OFFICE.

JOHN KEANE, OF SAN FRANCISCO, CALIFORNIA.

CHIMNEY-CAP.

SPECIFICATION forming part of Letters Patent No. 483,384, dated September 27, 1892.

Application filed February 16, 1892. Serial No. 421,533. (No model.)

To all whom it may concern:

Be it known that I, JOHN KEANE, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Chimney-Caps, of which the following is a specification.

My invention relates to an improvement in the construction of caps or guards for chimney-tops and smoke-pipes; and it consists in the described construction and combination of parts, producing a cap or guard having a free unobstructed outlet and passage for the smoke and a complete protection of such outlet and passage from downdrafts and return currents of air, all as hereinafter fully explained and set forth.

The accompanying drawings illustrate two different sizes of guards constructed in accordance with my invention, one of which is designed for use on a smoke-pipe or a single-flue chimney and the other for a chimney having several flues. It also represents the parts of the guard in detail.

Figure 1 is an elevation of my improved guard constructed for a single flue, with the outer casing or body broken away to expose the interior. Fig. 2 represents the internal parts in detail and in section. Fig. 3 is an elevation of a guard intended for a chimney having several flues, with the outside casing broken away in part to show the internal arrangement.

The guard for a single flue or a smoke-pipe is best made of cylindrical form; but where several flues in one chimney are to be protected the guard is made rectangular in form and of suitable breadth to cover all the flues.

The outer shell, casing, or body A is made of sheet metal with straight sides and a smooth interior surface. It is open at top and bottom and is of the same diameter or of the same width and breadth at top as at the bottom.

B is a tubular conductor in the bottom of the casing, extending below the rim of the casing at the bottom and for a short distance upward into the space above the rim. The diameter or the area of this conductor at the lower end is about the same as that of the pipe or flue or the row of flues which is to be

covered; but about midway in the length of this conductor a double conical deflecting-plate B' is placed around it, extending outward and reducing the area of the open space between the conductor and the casing. The apex or angle of this cone should be about in the same plane with the rim of the casing.

C is a deflecting-plate in the form of an inverted conical ring or flange fixed to or formed on the upper end of the conductor B and having about the same diameter or extent of projection as the conical deflecting-plate beneath it.

D is a deflecting-plate of about the same size as those below, but set over the deflector C in reversed position, or inclining downward toward the surrounding casing. Its open top is surrounded by a short perpendicular rim D', and its lower edge is set above the rim of the conical deflector C to leave a clear space equal in height, at least, to the perpendicular height of the conical deflector.

E is a cap or top plate with an inclined or tapering top fixed in the center of the open top of the casing to cover the central passage and the inclined deflectors beneath. It extends outward to about the same distance from the surrounding casing as the deflectors beneath, and it is supported clear of the casing by arms or brackets g, secured to the casing. The part D is supported in the same manner by the brackets g*, and the casing itself is fixed to the conductor by similar supports g². As many of these brackets or supports are used as the size and weight of the parts, the strength of wind to which the guard is exposed and other special conditions may seem to require.

Fig. 2 of the drawings represents the parts B C D E removed from the casing, but occupying the same positions as when set in place in the casing. They may be taken to represent either vertical sections taken diametrically through the parts in the cylindrical casing or sections taken transversely through the corresponding parts in the rectangular casing, in which latter construction the width of the casing is determined by the size of the flue; but the length is dependent upon the number of flues in the chimney.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. The herein-described cap or guard for chimney-flues and smoke-pipes, consisting of
5 the casing or body A, the central smoke-conductor B, inclined deflectors B' C, the top cap E, and the intermediate deflector D, having the perpendicular rim D', the said parts being supported within the casing clear of the
10 sides thereof, substantially as set forth.

2. In a cap or guard for chimney-flues, the combination, with a central smoke-conducting flue or passage, of the surrounding casing A, standing clear of the same all around, the
15 inclined deflectors B' B D, and the cap or top

plate E over the center of the casing at the top, substantially as set forth.

3. In a cap or guard for chimneys, the combination, with the casing or body A and a central conductor B, of two upwardly-inclined
20 deflecting-plates and two downwardly-inclined deflecting-plates, constructed and arranged to operate in the manner set forth and specified.

In testimony that I claim the foregoing I
25 have hereunto set my hand and seal.

JOHN KEANE. [L. S.]

Witnesses:

C. W. M. SMITH,

CHAS. E. KELLY.