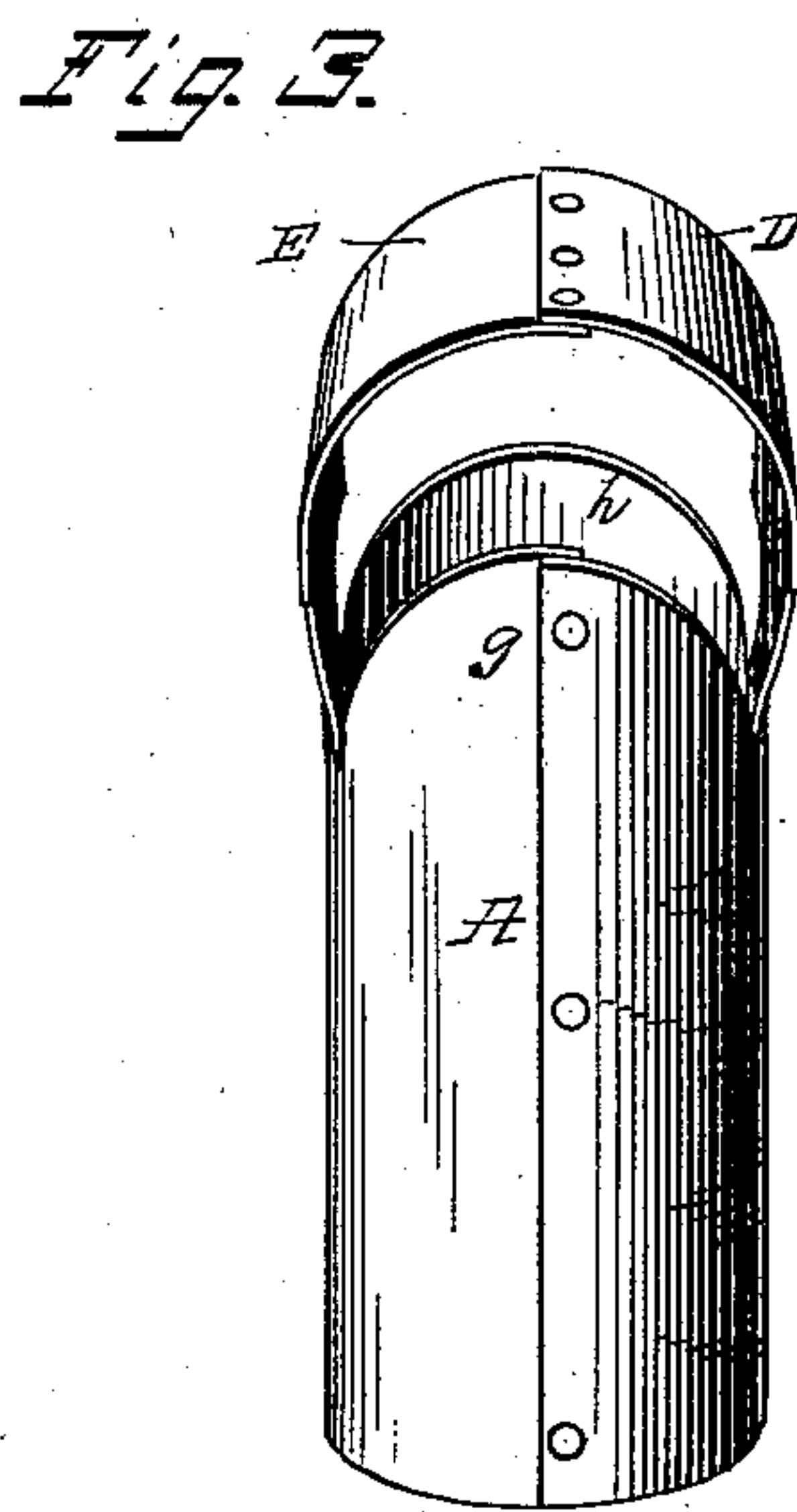
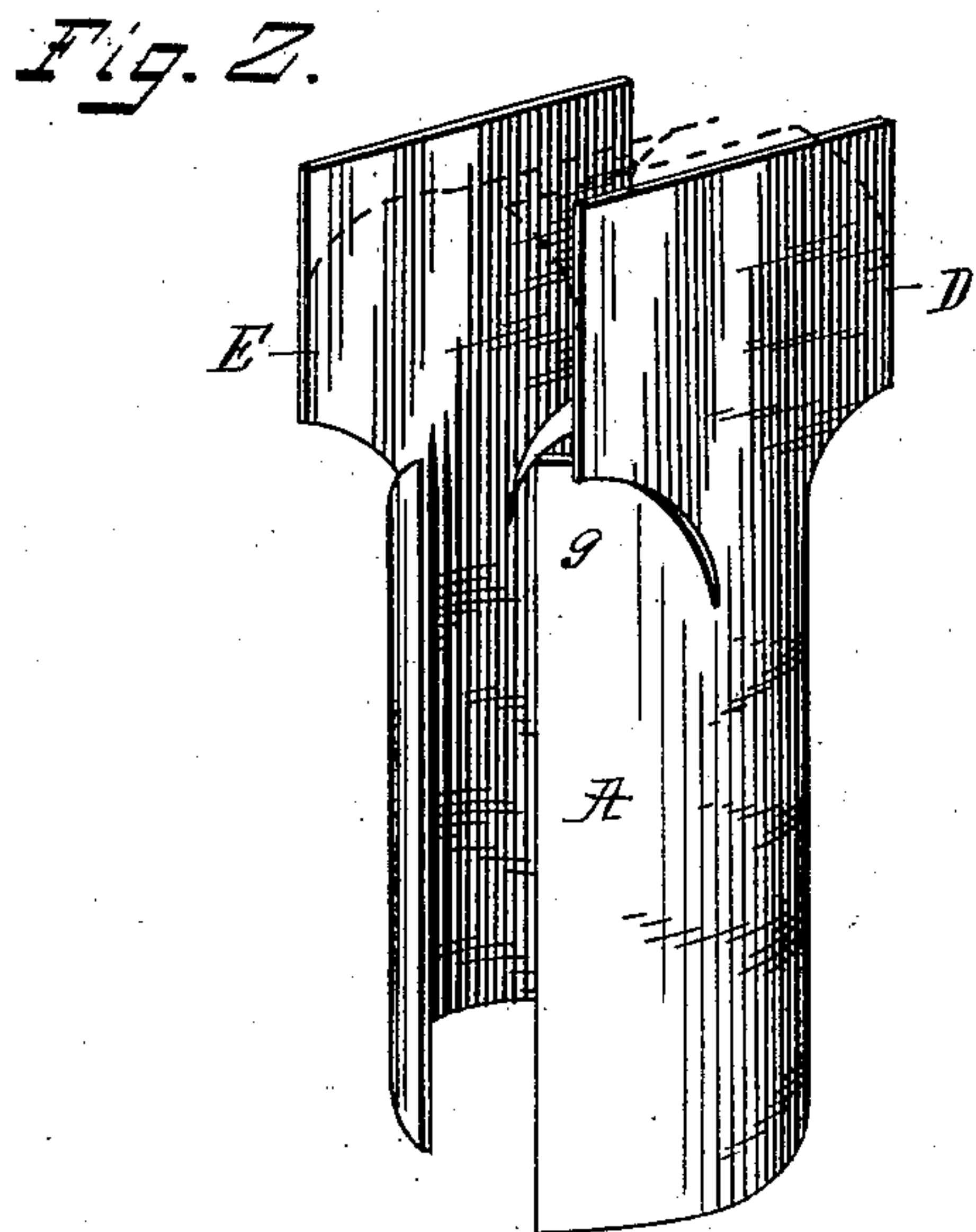
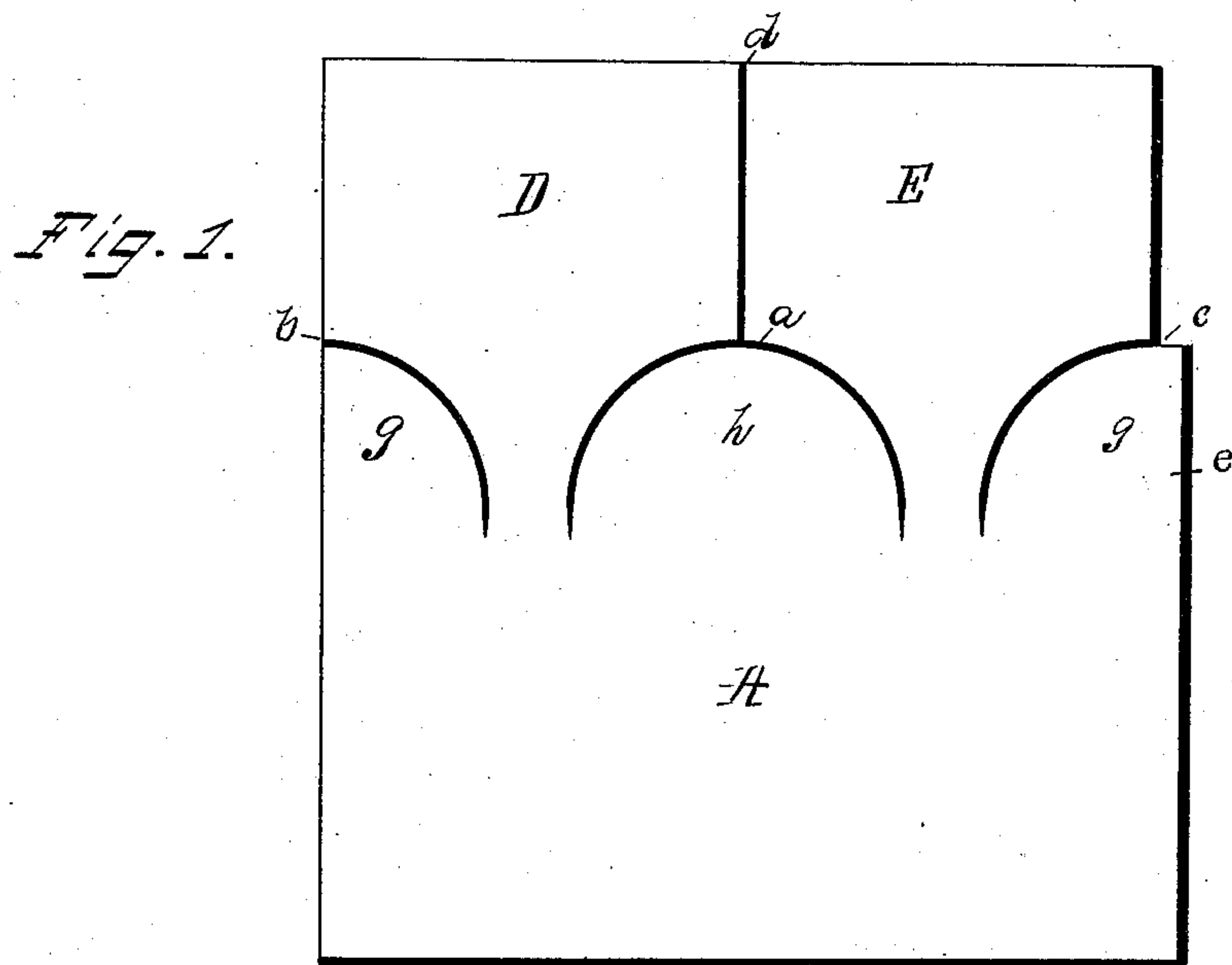


(No Model.)

E. O. WOODRUFF.
FLUE TOP OR SPARK CATCHER.

No. 376,498.

Patented Jan. 17, 1888.



WITNESSES.

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EDWIN OTIS WOODRUFF, OF KNOXVILLE, IOWA.

FLUE-TOP OR SPARK-CATCHER.

SPECIFICATION forming part of Letters Patent No. 376,498, dated January 17, 1888.

Application filed October 21, 1887. Serial No. 252,998. (No model.)

To all whom it may concern:

Be it known that I, EDWIN OTIS WOODRUFF, a citizen of the United States, residing at Knoxville, in the county of Marion and State of Iowa, have invented certain new and useful Improvements in Flue-Tops or Spark-Catchers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to chimney-tops or flue-tops generally which have a hood or bonnet to exclude rain and prevent counter-currents of air.

The object of the invention is to devise a novel pattern whereby the flue or flue top and bonnet can be formed from a single piece of sheet material without waste of material and with the minimum amount of seam, compared with prior devices, the hood-seam being arranged at the top, where it will not collect and retain the moisture which soon rusts away the side seams of the ordinary hoods. The flue portions have extensions which project up into the bonnet and prevent counter-currents of air, which is a common and very objectionable feature in flue-tops. The sheets, of various grades for different sizes of flue-tops, can be cut after my pattern by the manufacturer and sold to the trade and kept by them in piles until needed, when the flue top can be quickly made up.

The improvements consist of the novel features which will be more fully hereinafter set forth and claimed, and shown in the annexed drawings, in which—

Figure 1 is a plan view of my improved pattern for a flue-top; Fig. 2, a perspective view showing the flue-top partially bent into form by full and dotted lines; Fig. 3, a perspective view of the flue-top completed.

In forming the pattern of my flue-top I take a piece of sheet material, A, of desired size, and make a cut, *a*, near its top midway between the edges of the sheet, two short cuts, *b* and *c*, in line with and on each side of the cut *a*, and

a cut, *d*, extending approximately at right angles to the cut *a*, and from said cut *a* through the top of the sheet. The cuts *a*, *b*, and *c* may be of any desired form without departing from the spirit of my invention, although the curved form shown has been found to give the best results, and is therefore preferred. The cut *a* is semicircular, whereas the cuts *b* and *c* are each only one-half a semi-circle or one-quarter of a circle and extended through the edges of the sheet, and form with the two cuts *a* and *d* the two corresponding wings D and E. One of the sides of the sheet is extended slightly below one of the cuts, as *c*, for a short distance to form an overlapping edge, *m*, when the two edges are brought together.

In shaping the top the portion of the sheet below the cuts *a b c* is bent into cylindrical form, which will bring the wings D and E diametrically opposite to each other and parallel. (See full lines in Fig. 2.) After the edges of the tubular portion of the top are secured the wings D and E are curved toward each other, (see dotted lines, Fig. 2,) and their ends are overlapped and secured together. The seam formed is at the highest point, and will not retain moisture for any great length of time.

The top when completed has extensions *g* and *h*, diametrically opposite each other, which project up a short distance into the hood. These extensions, in connection with the hood, prevent, to a very great degree, counter-currents of air which interfere with the outward circulation of the flue.

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

1. The herein-described pattern for a flue-top composed of the sheet having a middle cut, a cut on each side of the middle cut, and a cut extending about at right angles to the line of the three cuts and from the middle cut through the top of the sheet, the side cuts extending through the edges of the sheet, substantially as described, for the purpose specified.

2. The herein-described flue-top, composed of the sheet having a curved cut midway between its edges and a short curved cut on each side of the middle cut extending through the edge of the sheet, and the cut extending

from the middle cut through the top of the sheet, forming the two wings, the sheet below the middle and side cuts being bent into tubular form and having its edges secured together, 5 and the wings being curved toward each other and secured together at their tops.

3. A flue-top made of a single piece of sheet material, composed of a tubular portion and a hood or bonnet, the tubular portion having 10 a single side seam, and the bonnet having a

single seam, which seam is located on top, substantially as described, for the purpose specified.

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

EDWIN OTIS WOODRUFF.

Witnesses:

W. L. WOODRUFF,

W. W. CLELAND.