

J. R. EGAR.

Hoods for Smelting-Furnace Chimneys.

No. 151,279.

Patented May 26, 1874.

Fig. 1.

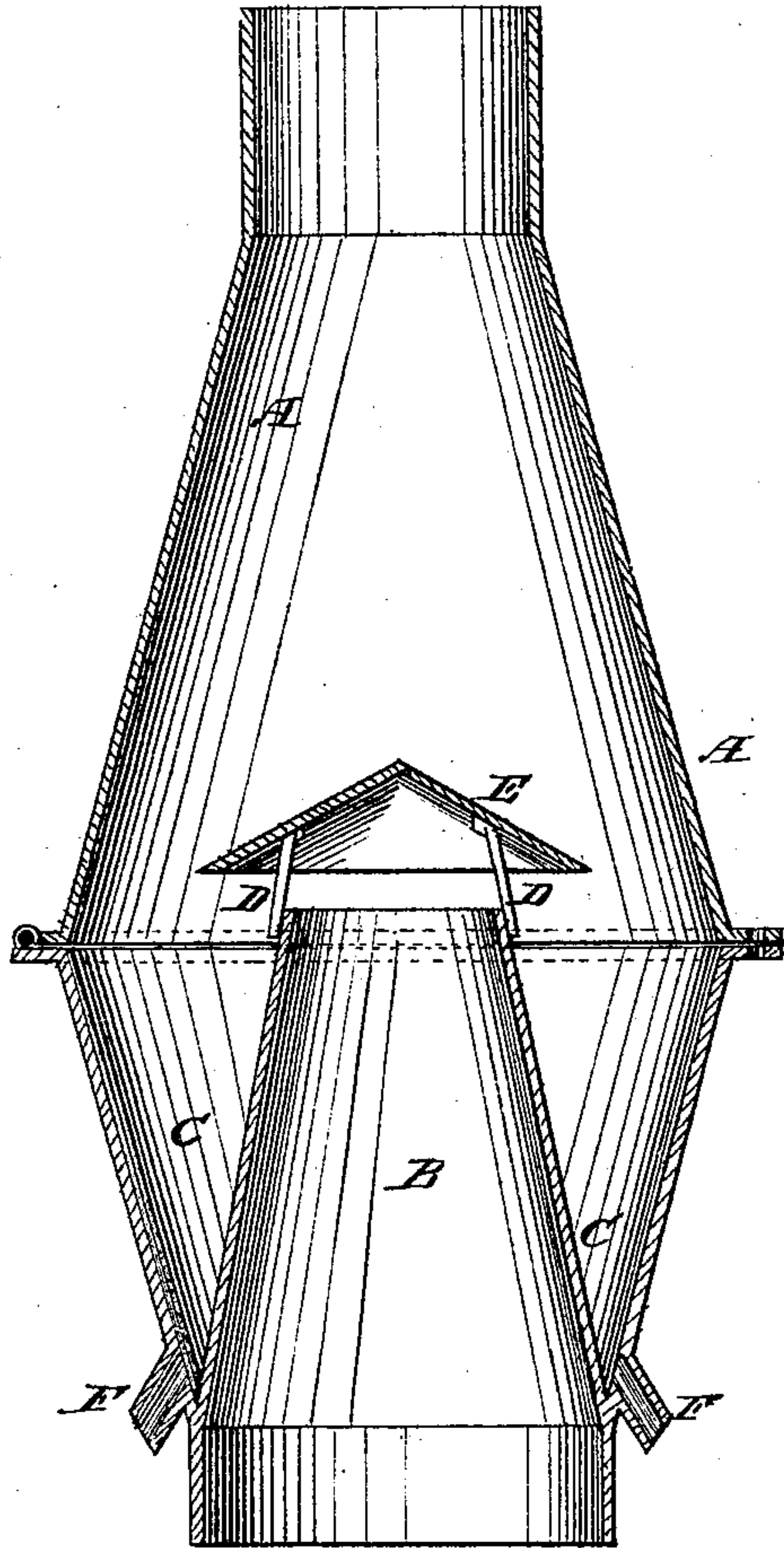
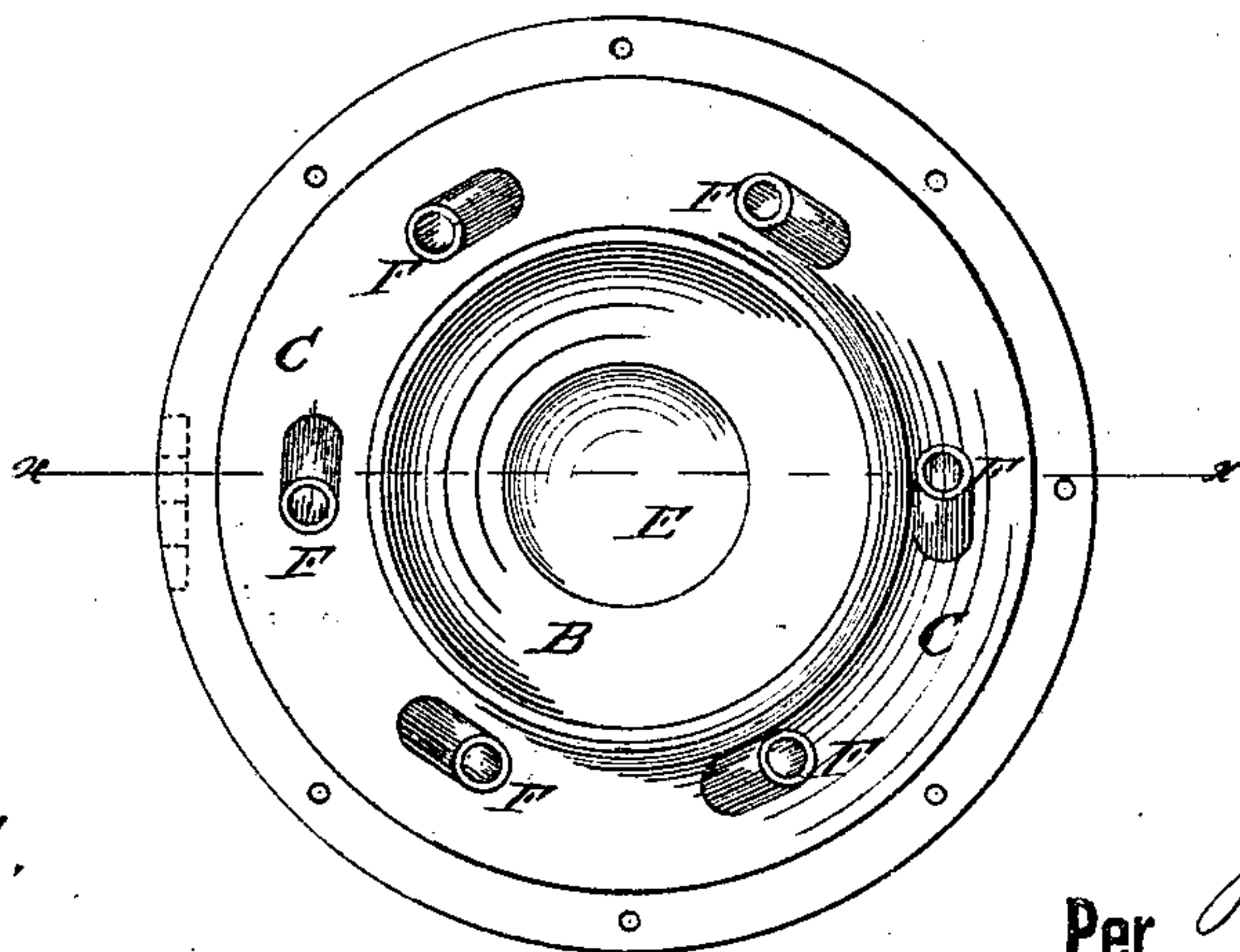


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JOHN R. EGAR, OF CORINNE, UTAH TERRITORY.

## IMPROVEMENT IN HOODS FOR SMELTING-FURNACE CHIMNEYS.

Specification forming part of Letters Patent No. **151,279**, dated May 26, 1874; application filed May 14, 1874.

*To all whom it may concern:*

Be it known that I, JOHN R. EGAR, of Corinne, in the county of Box Elder and Territory of Utah, have invented a new and useful Improvement in Hoods for Smelting-Furnace Chimneys, of which the following is a specification:

The object of this invention is to provide a simple and improved means for saving the mineral which now escapes from the furnaces for smelting silver and other valuable ores; and it consists in a hood to be placed on the furnace-chimney, in combination with discharge-pipes, as herein described.

In the accompanying drawing, Figure 1 is a vertical section of the hood, taken on the line *x x* of Fig. 2. Fig. 2 is a view of the base or lower end of the hood.

Similar letters of reference indicate corresponding parts.

A is the outer shell of the hood. This is, preferably, made in two parts, each part being similar to a truncated cone, with the bases joined by a hinge, as represented. B is an interior truncated cone, with its base attached to the lower part of the shell, as seen in Fig. 1, which leaves a space, C, around this interior cone. Above the top of this cone, supported

by the rods D D, is a conical cap, E, arranged with its concave side down, so that the smoke and gases from the furnace impinge against it.

In smelting silver, lead, and other ores, a large percentage of the mineral escapes with the smoke and gases in the form of fine dust. When there is no provision for arresting it, this dust escapes from the chimney, and the mineral is totally lost.

The cap E arrests the whole products of combustion, but the smoke and gases will escape and ascend, while the dust, some twenty or thirty per cent. of which is mineral, drops down and is caught in the space C, from whence it is discharged through a series of tubes, F, and conducted into a reservoir of water for separation.

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

The shell A, cone B, cap E, space C, and tubes or pipes F, as and for the purposes specified.

JOHN R. EGAR.

Witnesses:

JOHN H. GERRISH,  
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