

M. ZECH.
Spark-Arresters.

No. 141,531.

Patented August 5, 1873.

Fig. 1.

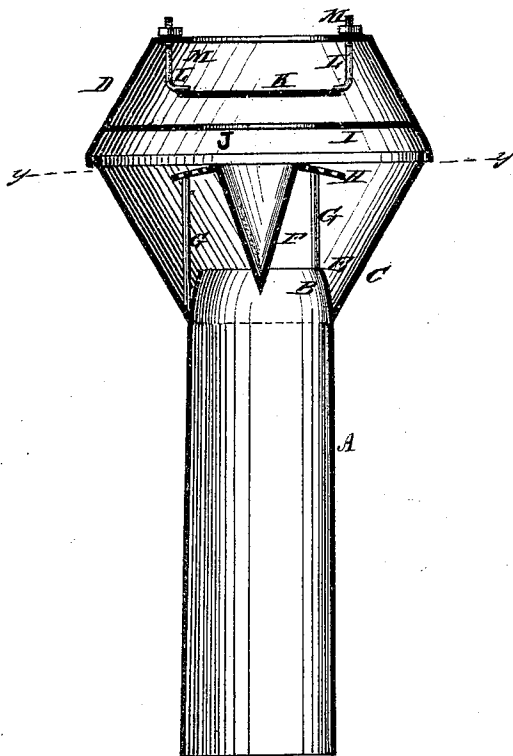
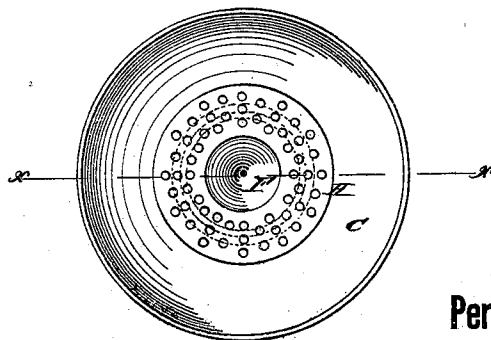


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

MICHAEL ZECH, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN SPARK-ARRESTERS.

Specification forming part of Letters Patent No. **141,531**, dated August 5, 1873; application filed May 17, 1873.

To all whom it may concern:

Be it known that I, MICHAEL ZECH, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Spark-Arresters, of which the following is a specification:

The invention consists in the improvement of spark-arresters, as hereinafter described and pointed out in the claim.

In the accompanying drawing, Figure 1 is a vertical section of Fig. 2 taken on the line *x x*. Fig. 2 is a horizontal section taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the barrel or cylinder of the smoke-stack. B is the contracted top thereof. C is the lower part of the double chimney-hood. D is the upper part. These parts are two truncated cones, with their bases together, in the usual manner. The contracted end of the barrel extends up into the lower part C, leaving an annular chamber, E, around it, as seen in Fig. 1. F is the inverted cone, supported by the rods G, directly over the center of the barrel. H is a broad flange, perforated with holes, around the upper end of the cone. I is a horizontal partition in the upper part of the hood, having in its center a large circular opening, J. K is a horizontal disk, of the diameter of

the opening J, suspended by the rods L from the top of the hood. The partition I and the disk K are arranged in regard to the flange H about, as seen in the drawing.

The cinders and sparks are deflected by the inverted cone and drawn through the perforated flange, and ascend and pass through the opening J, and then strike the disk K, and are thrown in each direction, and are still further retarded before they escape by the interior flange M around the top of the hood. Before reaching this point the sparks or cinders are broken up, so that when they escape from the hood any fire which they may retain is instantly extinguished by contact with the atmospheric air. This spark-arrester is easily made, and there is nothing to break or get out of order.

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

A spark-arrester, consisting of the contracted top B, inverted cone F, perforated flange H, annular partition I, disk K, and flange M, arranged substantially as shown and described.

MICHAEL ZECH.

Witnesses:

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