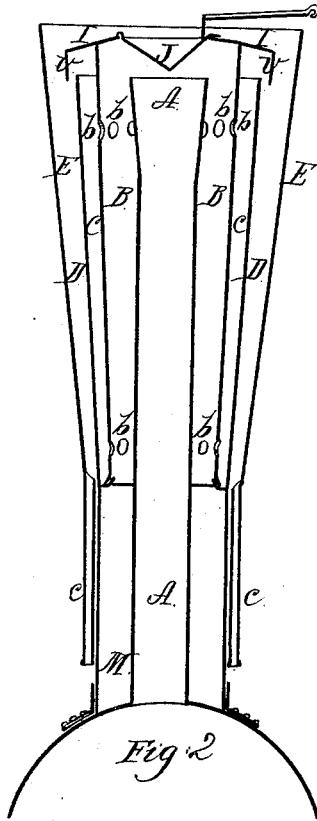
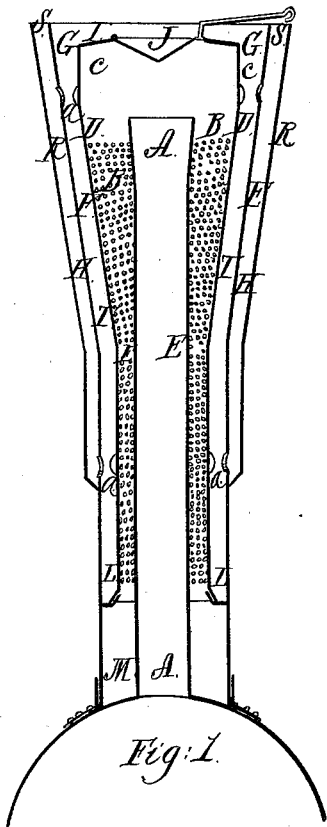


*L. Phleger,
Spark Arrester,
Patented Dec. 28, 1840.*



UNITED STATES PATENT OFFICE.

LEONARD PHLEGER, OF PHILADELPHIA, PENNSYLVANIA.

SPARK-ARRESTER.

Specification of Letters Patent No. 1,912, dated December 28, 1840.

To all whom it may concern:

Be it known that I, LEONARD PHLEGER, of the city of Philadelphia, in the State of Pennsylvania, have made certain Improvements in Spark-Arresters, for which I obtained Letters Patent of the United States bearing date of September 10, 1840; and I do hereby declare that the following is a full and exact description thereof.

My first improvement consists in substituting for the elbow pipes which are marked H, H, in the drawing annexed to the Letters Patent above referred to, a continuous case, or jacket, which shall entirely surround the outer case, marked F, F, in said drawing. In all other respects the respective parts of the whole apparatus may remain the same as they are described in the specification of said Letters Patent, and represented in said drawing. I had contemplated this manner of constructing the apparatus, when said Letters Patent were obtained, but having considered it as substantially the same with the elbow pipes, producing the same effect by a very obvious modification of the arrangement of the parts, it was omitted in the description; but as there are certain persons who appear to think that they can evade my patent by adopting this arrangement, I have determined herein to set forth and claim the same, being, as I verily believe, the original and first inventor thereof.

In Figure 1, in the accompanying drawing, I have shown the respective parts as they are represented in Fig. 3, of the drawings attached to my original patent, with the exception of the jacket, or case, which constitutes the improvement, or modification, above named. I have, also, designated these parts, where they remain unchanged, by the same letters of reference used in the original drawings, but do not deem it necessary to repeat the description thereof any further than is requisite for the clearly designating of my improvement. H, H, represents the space left between the outer case F, F, and the jacket, or case, R. R. which space is left open at the upper end S, S. The outer case F, F, of the original apparatus, which leaves the space T, T', between it and the perforated plate B, has a number of large holes through it, in the same manner as though the elbow pipes were to be inserted, and so

that the draft may escape through said holes into the space H, H. Said space need not be equal in width to more than one half, or one third, of the diameter of the pipes for which it is a substitute; *a, a, a, a*, are the large openings made around and through F, F, into this space. There is attached to this apparatus an elbow pipe, and a spark receptacle, like those marked N, and O, in the drawing of my original patent.

What I claim in this part of my improvement is—

The employment of the jacket, or case, R, R, in the manner described and represented, in lieu of the elbow pipes described in my patent of September the 10th, 1840.

My second improvement consists in the dispensing with the perforated cone of sheet metal marked B, B, in Fig. 1, and in my original Letters Patent, and in such variation in the form and arrangement of the respective parts as are rendered necessary by this omission, and which are shown in the accompanying drawing, Fig. 2. In this drawing, A, A, is the chimney; B, B, is a cylindrical, or conical plate of metal, which instead of being in part of wire gauze, or perforated in the manner of B, B, in Fig. 1, has a number of large openings *b, b*, (say six inches in diameter) through it toward its upper and lower ends, for the draft to escape through into the space C, C, answering to that marked T, T, Fig. 1. The cap I, I, has a descending rim U, U, which turns the sparks downward, so that those which do not fall into the space M, will tend to fall to the bottom of the space D, D, formed by the outer case E, E, from which the ashes may escape through tubes *c, c*, descending from them for that purpose.

What I claim as constituting my improvement in this modification of my spark arrester, is—

The using of a conical, or cylindrical, tube B, B, perforated with large holes, as described. The metallic cap I, I, and the other parts described, being so arranged as to be adapted thereto, substantially in the manner set forth.

L. PHLEGER.

Witnesses:

THOS. P. JONES,
JOHN C. JOHNSTON.