

C. F. LOCHNER.
Spark-Arrester.

No. 217,542.

Patented July 15, 1879.

Fig. 1

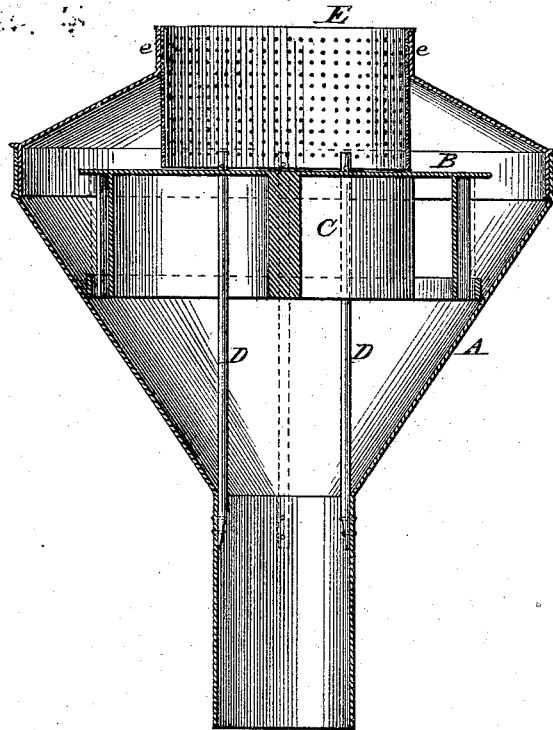
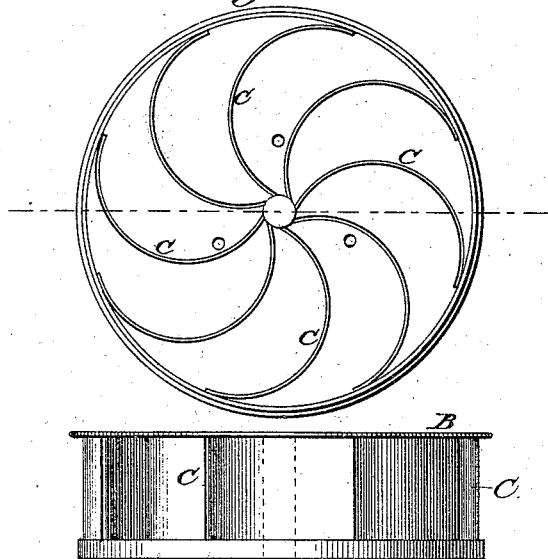


Fig. 2.



Attest:

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Fig. 3.

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UNITED STATES PATENT OFFICE.

CASPER F. LOCHNER, OF JEFFERSON, ASSIGNOR TO HIMSELF, DANIEL R. MURPHY, OF MARSHALL, AND W. P. TORRANS, OF JEFFERSON, TEXAS.

IMPROVEMENT IN SPARK-ARRESTERS.

Specification forming part of Letters Patent No. **217,542**, dated July 15, 1879; application filed February 15, 1879.

To all whom it may concern:

Be it known that I, CASPER F. LOCHNER, of Jefferson, Marion county, Texas, have invented a Cone and Spark-Arrester, of which the following is a specification.

The object of my invention is to improve the construction of spark-arresters, so that they will be more efficient, and yet simple in construction and not liable to get out of repair; and the invention consists of a metallic circular cone, with winding or arched flanges or wings, which extend toward the side of the shell, and they are covered by a plate, to the upper side of which a perforated cylinder is attached, so that all the sparks are arrested and thoroughly extinguished, while the smoke can pass out through the perforations, all of which will be more fully described hereinafter, reference being had to the accompanying drawings and letters of reference thereon, in which—

Figure 1 is a central vertical section of my spark-arrester. Fig. 2 is a plan view of the plate with the arched wings. Fig. 3 is a side view of the same.

In the drawings, A represents the shell of a smoke-stack for locomotives, in the upper flaring part of which is arranged a circular plate, B, to which the arched or curved wings or flanges C are attached. This plate is supported upon standards D, connected to the lower part of the stack.

Above the plate B is arranged a cylindrical perforated piece of metal, E, secured to the upturned flange *e* or mouth or neck of the stack.

It will be readily understood that the sparks, ascending by the force of the exhaust-steam and the draft of the chimney, receive a whirling or circular motion by coming in contact with the plate and curved wings, and fall back into the smoke-arch, while the smoke can freely pass out through the perforations. The sparks are also entirely extinguished, and can be removed from the smoke when desired.

The advantage of my spark-arrester is, that it is very simple in construction, and not liable to get out of order; it can be easily repaired; it can be readily applied to any smoke-stack having a flaring part; the sparks are entirely extinguished and prevented from passing out, and the smoke is not at all impaired.

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

1. In a spark-arrester, the circular plate B, provided with curved flanges or wings C, and supported on standards D, constructed and arranged as shown and described.

2. The combination of the shell A with the circular plate B, provided with curved wings C, supported on standards D, and the perforated piece E, secured to the mouth of the stack, all arranged substantially as shown, and for the purpose specified.

CASPER F. LOCHNER.

Witnesses:

GEO. T. TODD,
W. P. TORRANS.