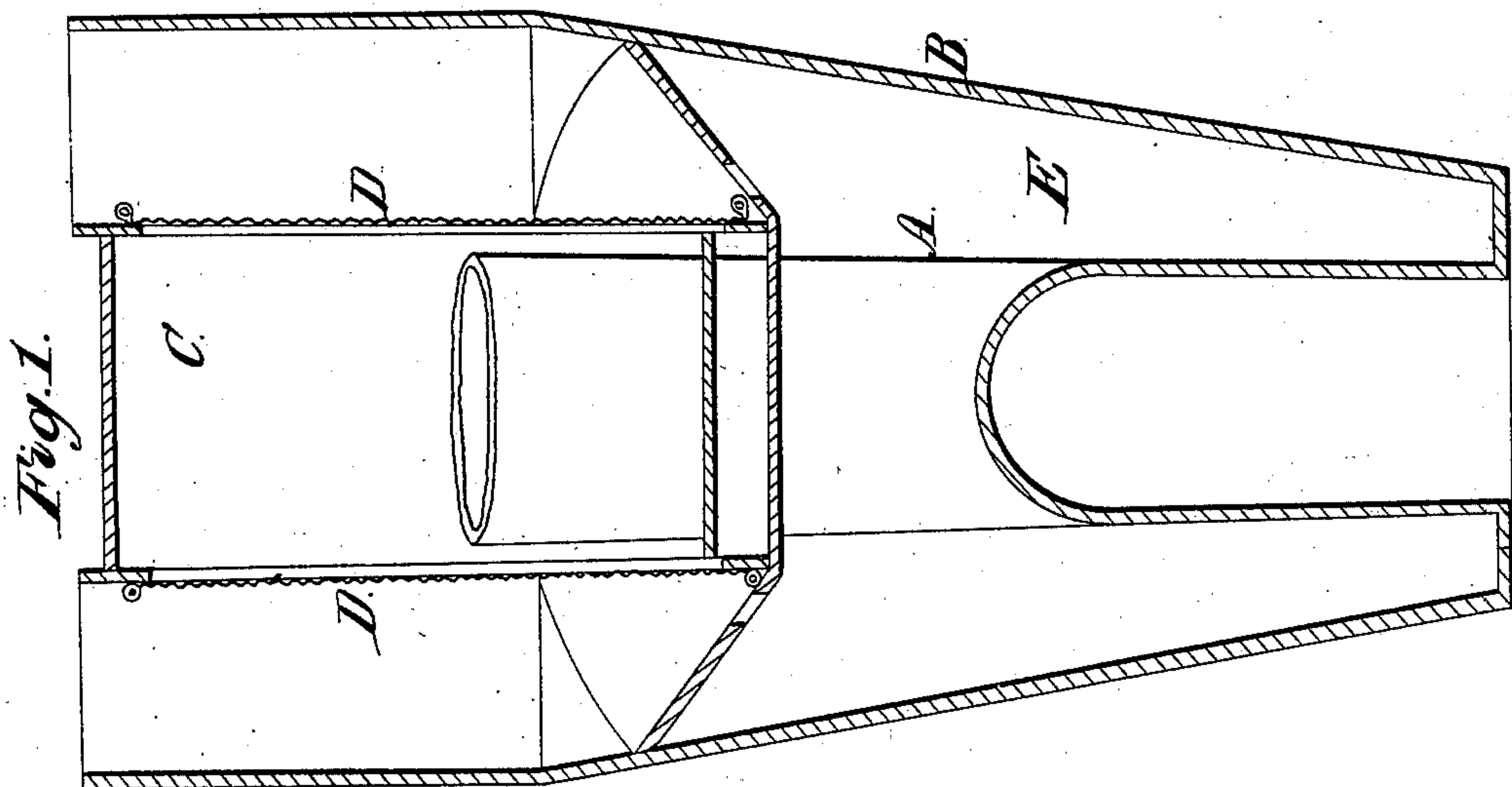
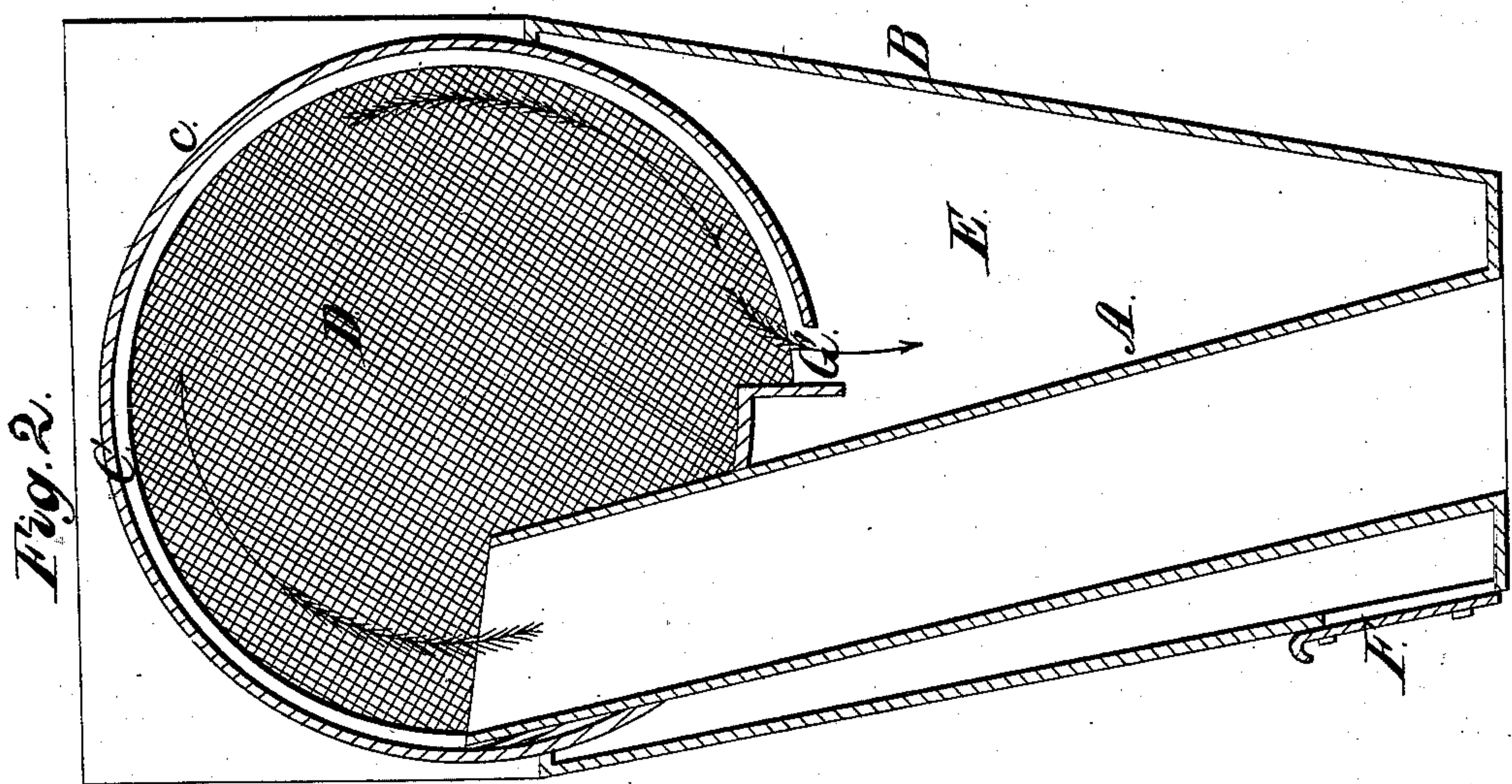


*S. Swett, Jr.,*  
*Spark Arrester,*  
*No. 4,048, Patented May 13, 1845.*



# UNITED STATES PATENT OFFICE.

SAMUEL SWETT, JR., OF NEW YORK, N. Y.

## IMPROVEMENT IN SPARK-ARRESTERS.

Specification forming part of Letters Patent No. 4,048, dated May 13, 1845.

*To all whom it may concern:*

Be it known that I, SAMUEL SWETT, Jr., of the city and county of New York, and State of New York, have invented a new and useful Improvement in Spark-Arresters for Locomotives, Steamboats, &c., which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a vertical transverse section through the center of the spark-arrester. Fig. 2 is a vertical longitudinal section of the same.

This invention and improvement consist in surrounding the ordinary smoke-pipe, A, of the locomotive or other engine with an inverted funnel-shaped case, B, leading into the bottom of a drum, C, whose ends are closed with reticulated wire D for arresting the sparks, the sum of the areas of the meshes of which (through which the smoke passes) being equal to the area of the smoke-pipe A, through which it passes from the fire-box to the drum. The sparks when thus arrested by the wire-cloth D fall down into a space, E, between the smoke-pipe and case, from whence they are removed

through a door, F, in the case; or the sparks may be conducted into a receiver containing water, or into the ash-box, or into any convenient place.

The drum C is made in the form of a cylinder whose axis is horizontal, having an opening, G, in its circumference near the smoke-pipe A, through which the sparks descend into the space E after being whirled round in the drum C, the circumference of the interior of the drum giving them their downward direction through the aforesaid opening G in the direction indicated by the arrows.

What I claim as my invention, and which I desire to secure by Letters Patent, is—

The combination of the drum C and case B with the smoke-pipe A, constructed and arranged and operating in the manner and for the purpose set forth, or other mode substantially the same for producing analogous results.

SAMUEL SWETT, JR.

Witnesses:

EDM. MAHER,  
THOMAS C. THEAKER.