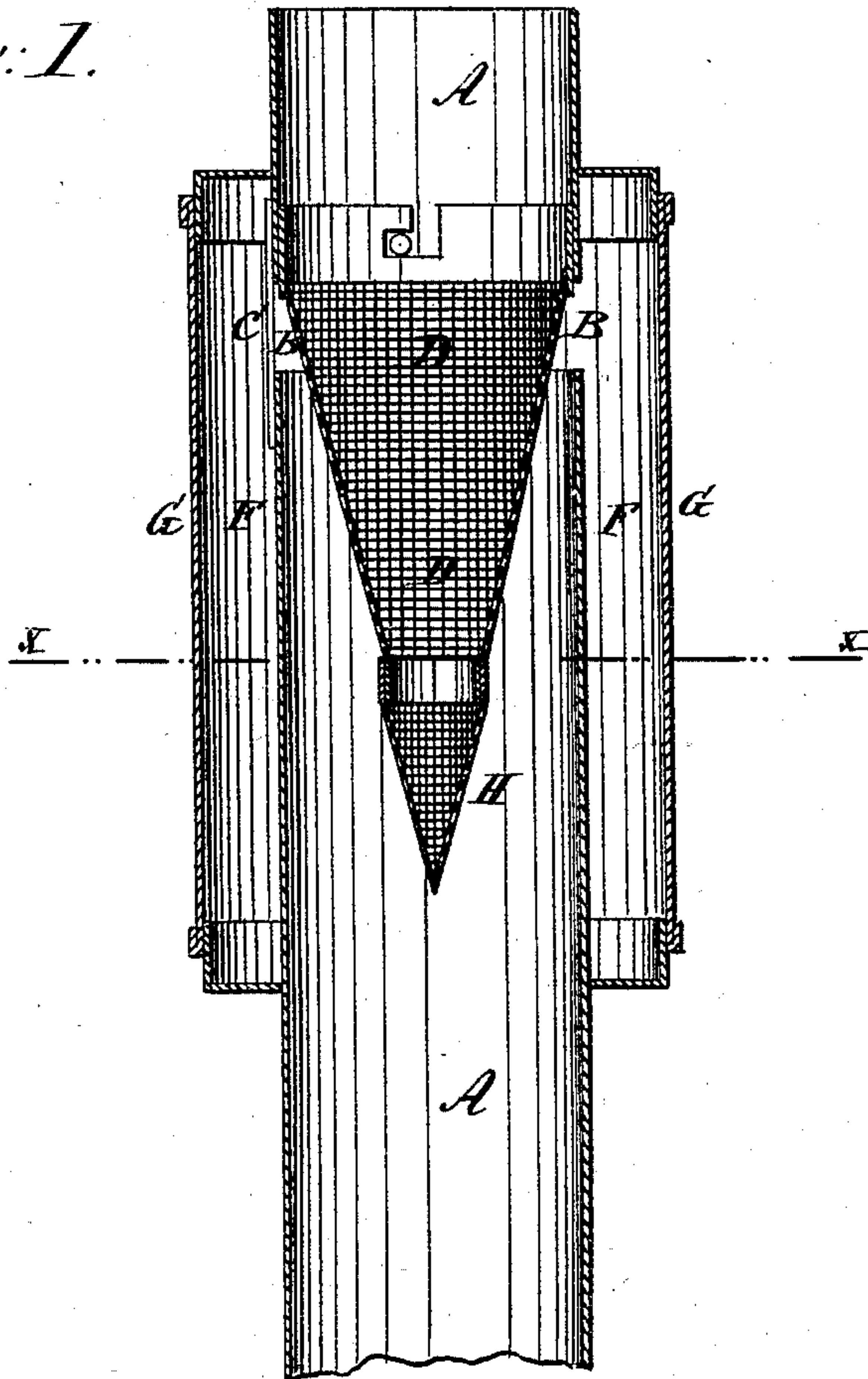


H. A. RIDLEY.  
Spark Arrester.

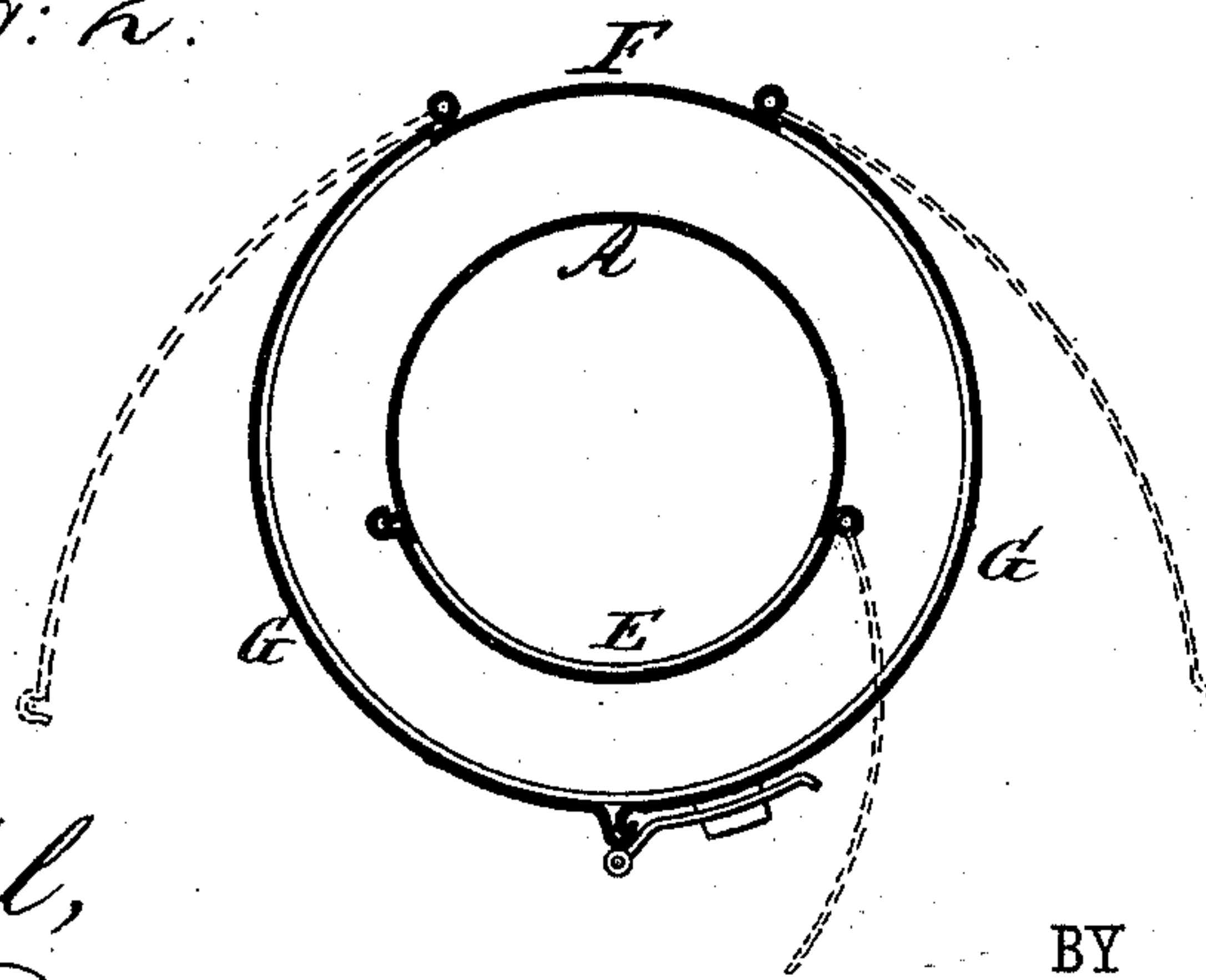
No. 233,022.

Patented Oct. 5, 1880.

*Fig: 1.*



*Fig: 2.*



WITNESSES:

*A. Schehl,*  
*C. Sedgwick*

INVENTOR:

*H. A. Ridley,*  
*Mum Co.,*

BY

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY A. RIDLEY, OF JACKSONPORT, ARKANSAS, ASSIGNOR TO HIMSELF  
AND WILLIAM R. JONES, OF SAME PLACE.

## SPARK-ARRESTER.

SPECIFICATION forming part of Letters Patent No. 233,022, dated October 5, 1880.

Application filed January 14, 1880.

*To all whom it may concern:*

Be it known that I, HENRY ADAM RIDLEY, of Jacksonport, in the county of Jackson and State of Arkansas, have invented a new and useful Improvement in Spark-Arresters, of which the following is a specification.

Figure 1 is a sectional elevation of the improvement. Fig. 2 is a sectional plan view, taken through the line *x x*, Fig. 1.

The object of this invention is to furnish spark-arresters so constructed as to prevent sparks from passing out with the smoke, and to allow the dead sparks to be readily removed.

Similar letters of reference indicate corresponding parts.

A represents a smoke-stack, chimney, or other smoke-flue, through which sparks are liable to pass with the smoke. The stack or flue A is made in two parts, or has a ring-opening, B, formed in it, the adjacent ends of the said parts being connected by bars or rods C, attached to them.

D is a screen, made of wire-gauze, perforated sheet metal, or other suitable material, and which is formed in the shape of an inverted cone. The upper part of the screen D fits into the upper part of the stack A, just above the opening B, where it is secured in place by a bayonet-catch or other suitable fastening that will allow it to be conveniently detached to be cleaned, repaired, or renewed. To enable this to be done an opening is formed in the lower part of the stack A, opposite the screen D, which opening is closed by a door, E.

The part of the stack A that contains the screen D is surrounded with a jacket, F, extending downward from a little above the opening B to any desired distance. The jacket F is made of a greater diameter than the stack A, to form a space or pocket to serve as a receptacle for the sparks. In the sides of the jacket F are formed doors G, to allow the dead sparks to be conveniently removed.

With this construction the smoke and other gaseous products of combustion will pass through the screen D freely, so that the draft will not be impeded, while the sparks will pass up the sides of the screen D, will pass through the opening B, and will fall into the lower part of the jacket F, whence they can be conveniently removed when desired.

The apex H of the screen D is made detachable, so that it may be taken off to remove any soot or dust that may settle in it.

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

The combination of the stack A, made in two sections connected by the strips C, the surrounding jacket F, and the conical screen D H, hung from the upper section, constructed and arranged as shown and described.

HENRY A. RIDLEY.

Witnesses:

FRANKLIN DOSWELL,  
L. M. HOFFMAN.