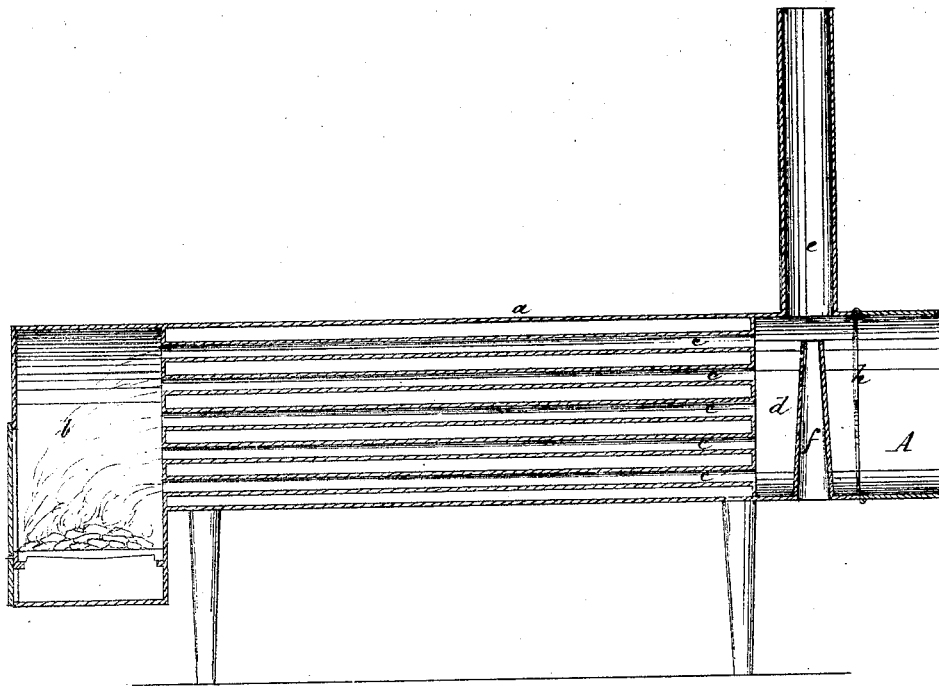


WILLIAM W. ELLIOTT.
Improvement in Spark-Arresters.

No. 114,117

Patented April 25, 1871.



Witnesses:

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Inventor:

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PER

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WILLIAM W. ELLIOTT, OF ELLIOTT'S MILLS, MISSISSIPPI.

Letters Patent No. 114,117, dated April 25, 1871.

IMPROVEMENT IN SPARK-ARRESTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, WILLIAM W. ELLIOTT, of Elliott's Mills, in the county of Panola and State of Mississippi, have invented a new and improved Spark-Arrester; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making part of this specification, in which the figure is a sectional elevation.

This invention has for its object to arrest the sparks, cinders, &c., that come from the fire-flues of a steam-boiler, and hold them in a chamber provided for their reception until they become dead and harmless.

The invention particularly consists in a hinged box provided with a perforated flange applied to the end of a steam-boiler in such connection with the tube or funnel through which the exhaust-steam enters the smoke-stack that the momentum acquired by the cinders and sparks will cause them to enter said box, where they will be retained and thus rendered harmless.

Referring to the drawing—

a is a boiler.

b, the furnace for the same.

c, fire-flues traversing the boiler from the furnace to the rear end.

d, a space in the boiler beyond the flues *c* and water-space, and directly beneath the smoke-stack *e*.

f, a pipe projecting into the space *d* and extending nearly to the bottom of the smoke-stack, the function

of said pipe being to discharge into the smoke-stack waste steam from the boiler, with which the pipe is connected in any suitable manner, for the purpose of increasing the draught.

A is a cylindrical box, hinged at its upper side to the end of the boiler, and communicating with the space *d*, from which it is separated only by the flange *h*. The momentum acquired by sparks, coals, &c., during their passage through the fire-flues carries them into the box *A*, which retains them until they are burned out.

Whenever a quantity of refuse matter of this description accumulates in the box, the latter may be raised on its hinges so as to discharge its contents.

If the box were not employed the sparks would fly upward through the chimney, as they do in the case of boilers not provided with an arrester.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The improved spark-arrester, consisting of the hinged box *A* and apertured flange *h*, arranged with the tube *f*, flues *c c*, and smoke-stack *e*, as herein shown and described, to operate as set forth.

To the above specification of my invention I have signed my hand this 28th day of September, A. D. 1870.

WILLIAM W. ELLIOTT.

Witnesses:

D. J. JOHNSON,

J. R. CARDWELL.