

L. Fulton.

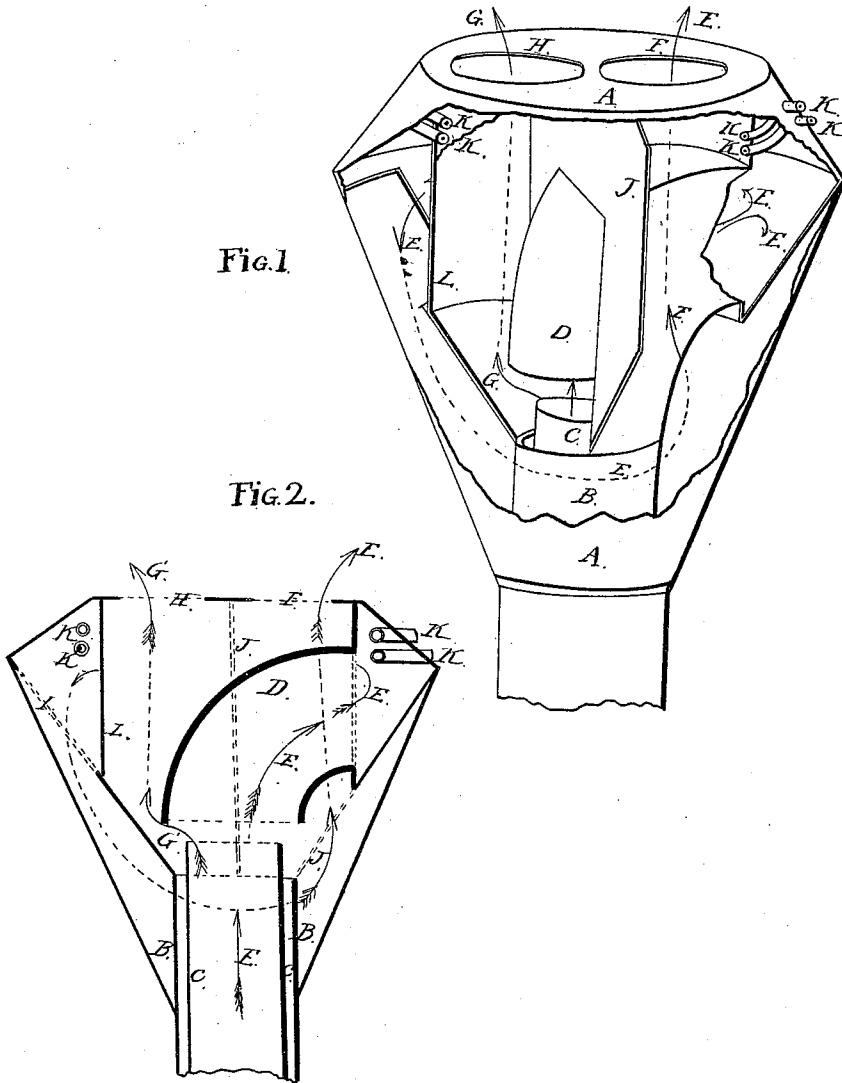
Snake Stack.

N^o 88,864.

Patented Apr. 13. 1869.

Fig. 1

Fig. 2.



Witnesses:

George Deans
Chas Langenhelm Jr

Inventor

Lorenzo Fulton



LORENZO FULTON, OF CINCINNATI, OHIO.

Letters Patent No. 88,864, dated April 13, 1869.

IMPROVEMENT IN SMOKE-STACKS FOR LOCOMOTIVE-ENGINES.

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, LORENZO FULTON, of Cincinnati, in the county of Hamilton, in the State of Ohio, have invented a new and improved Mode of Arresting and Extinguishing Sparks of Fire when passing through the smoke-stacks used on locomotive-engines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in devices for combining steam with fire, and passing it through condensers, where the fire is extinguished by the steam, as hereinafter explained.

It is constructed so as to allow the condensing chambers E to surround the centre, or draught-pipe C, over which the elbow-pipe D is placed, which is at a given distance from draught-pipe C.

G is the course of the natural draught.

J is a partition between the natural and artificial draught, thus separating them.

A is the top of smoke-stack.

H is the outlet for the natural draught.

F is the outlet for the artificial draught.

The arrows indicate the course of the steam and smoke in passing through the different departments.

B is a pipe surrounding the inside pipe C, for the purpose of forming a place of deposit for sparks when thrown from the condensers.

K is a heater-pipe reaching round a condensing chamber, for the purpose of heating water by steam after it has been used for producing draught in the furnace.

It operates as follows:

When the artificial draught is applied from the force of steam, it is thrown into the elbow-pipe, which conducts it through the surrounding condensers, where the fire is extinguished before reaching its final place of delivery, F at the top of the stack.

When no steam is in use, the natural draught G passes by the elbow D, and out at the opening H.

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

1. The combination of the elbow-pipe D with the smoke-stack of a locomotive-engine, whereby to conduct steam in and through chambers E, thereby extinguishing the fire connected with the draught, as herein described.

2. The combination of the water-circulating pipes K with the condensing chambers E, for extinguishing fire and heating the feed-water, as herein described.

3. The construction and arrangement of the partition J, whereby to separate an artificial draught from a natural draught, as herein described.

LORENZO FULTON.

Witnesses:

GEORGE DEAN,

CHAS. LANGENHEIM, Jr.