J. L. MASON.

Smoke-Stack.

No. 164,652. Patented June 22, 1875.

Fig. 1.

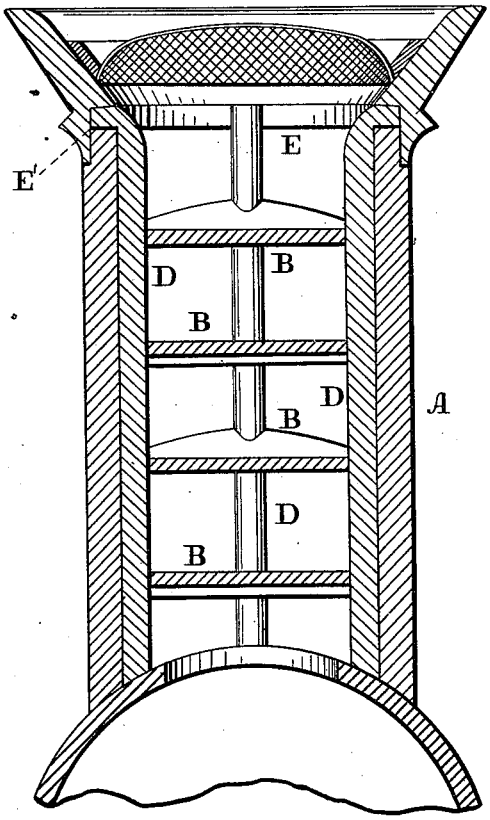
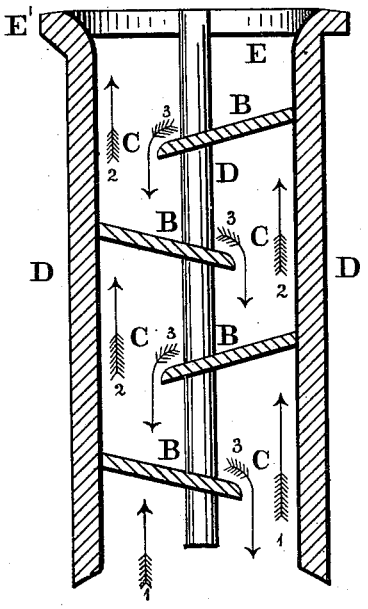


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN L. MASON, OF NEW BRUNSWICK, NEW JERSEY,

IMPROVEMENT IN SMOKE-STACKS.

Specification forming part of Letters Patent No. **164,652**, dated June 22, 1875; application filed October 31, 1874.

To all whom it may concern:

Be it known that I, JOHN L. MASON, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Smoke-Stacks; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is a central vertical section of the device embodying my invention. Fig. 2 is a central vertical section (diametrically opposite to that of Fig. 1) of a detached portion.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists in arranging within a smoke-stack of a locomotive-engine a series of shelves which extend in an inclined direction and overhang the ends of one another, whereby cinders are arrested and caused to return to the bottom of the stack or flue-space, and thus prevented from discharging upwardly. It also consist in making the arrester detachable and removable from the stack for purposes of cleansing, repairs, &c., and ease of application to the stack.

Referring to the drawings, A represents the smoke-stack of a locomotive-engine, which may be of well-known form and construction. B represents a series of shelves which are arranged within the stack A, and extend in an inclined direction from one side of the stack toward the opposite side at such distance that there is left between each shelf and the stack a space, C, the spaces alternating at opposite sides of the stack throughout the series of shelves. The shelves are secured to uprights D, which fit within the smoke-stack and are made removable therefrom. The uprights are connected at top by a ring or band, E, with which may be formed a projection, E′, to enter a corresponding shaped notch in the stack in order to prevent rotation of the upright and shelves.

When the shelves or stack require cleansing or repairs the former are withdrawn, and thus, through the medium of the uprights, all of the shelves move out as one. After the cleansing or repairing operations are finished the shelves are readily returned to position in the stack.

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

1. The combination, with the smoke-stack A of a locomotive engine, of the series of shelves B, projecting inwardly and overhanging one another and inclined toward the bottom of the stack, substantially as and for the purpose set forth.

2. The shelves B and uprights E, connected to each other and made removable from the stack A, substantially as and for the purpose set forth.

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