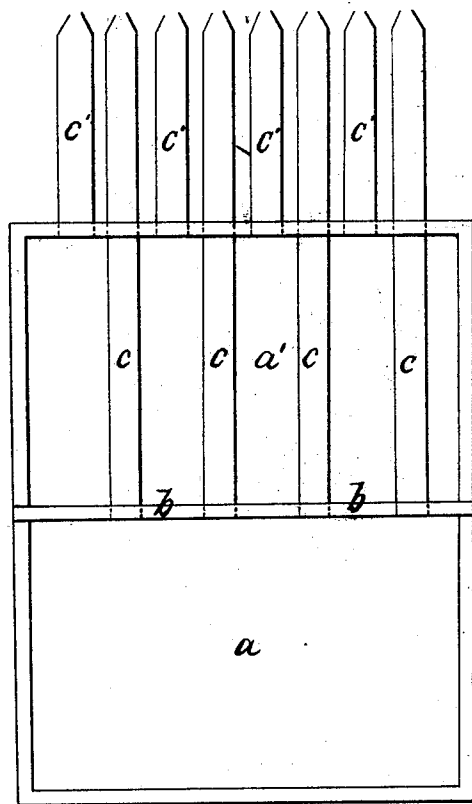


A. M. Eastwick.

Exhaust Mechanism for Locomotives.
N^o 674. Patented Apr. 5, 1838.



UNITED STATES PATENT OFFICE.

ANDREW M. EASTWICK, OF PHILADELPHIA, PENNSYLVANIA.

DRAFT-BOX FOR STEAM-ENGINES.

Specification of Letters Patent No. 674, dated April 5, 1838.

To all whom it may concern:

Be it known that I, ANDREW M. EASTWICK, of the city of Philadelphia, in the State of Pennsylvania, machinist, have invented a new and improved mode of constructing a draft-box to be applied to the chimney of locomotives or other steam-engines for the purpose of increasing the draft by the action of the waste steam; and I do hereby declare that the following is a full and exact description thereof.

It has been the practice heretofore, when draft boxes have been employed for the purpose of increasing the intensity of the fire by accelerating the rapidity of the current of the chimney, to suffer the waste steam from each of the cylinders of the engine to escape from them into one common compartment or single draft box, whence it passed through suitable tubes into the chimney, in this mode of procedure, however, it has been found that there is an interference of the force of the escape steam from one cylinder with that of the other so that the greatest useful effect is not produced.

To obviate this difficulty I divide my improved draft box into two compartments by means of a partition or diaphragm so formed and arranged as to cut off all interfering communication between the two and

to obtain the full effect of the waste steam.

In the accompanying drawing, which represents a vertical section through the center of the draft box, *a* and *a'* are the two compartments into which it is divided, by means of the partition *b*, *b*;—the waste steam from one of the cylinders enters the compartment *a*, and from the other cylinder the compartment *a'*, through proper openings constructed for that purpose in the usual way. From the compartment *a*, the tubes *c*, *c*, *c*, lead through the compartment *a'*, and into the chimney; while from the compartment *a'*, the tubes *c'*, *c'*, *c'*, likewise conduct the steam into the chimney. At the escape end, the tubes *c*, *c*, *c*, *c*, are usually narrowed to increase the intensity of the blast.

All that I claim as my invention and wish to secure by Letters Patent is—

The division of the draft box into two distinct compartments, in the manner and for the purpose set forth; not intending to confine myself to any particular form of apparatus, but to vary this as I may think proper, while the same effect is produced by means substantially the same.

A. M. EASTWICK.

Witnesses:

JOSEPH HARRISON,
PHILIP GARRETT.