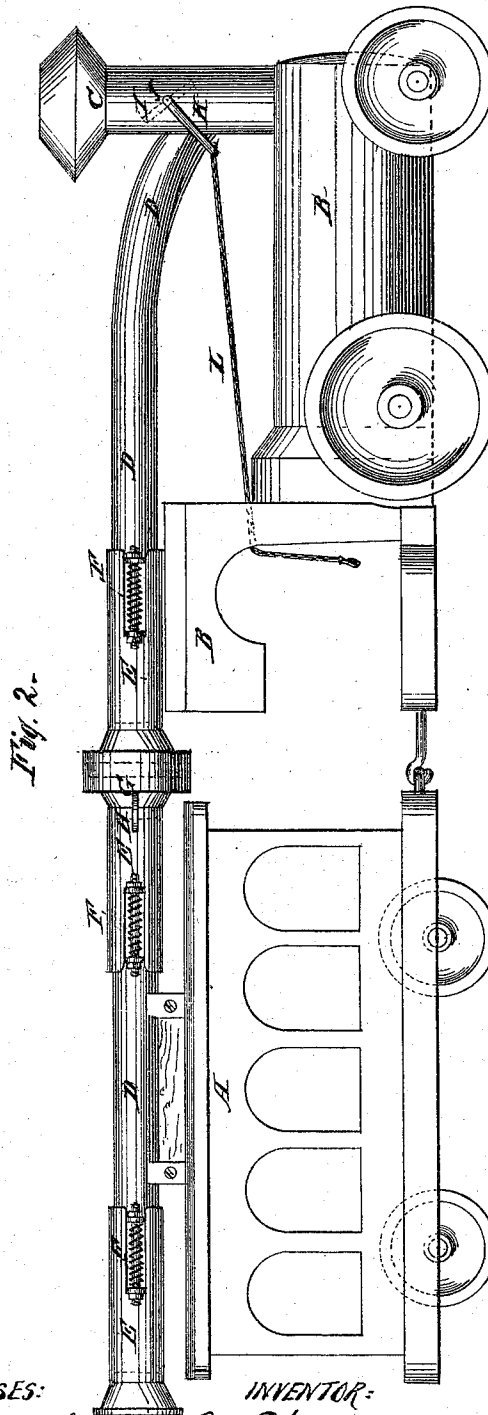
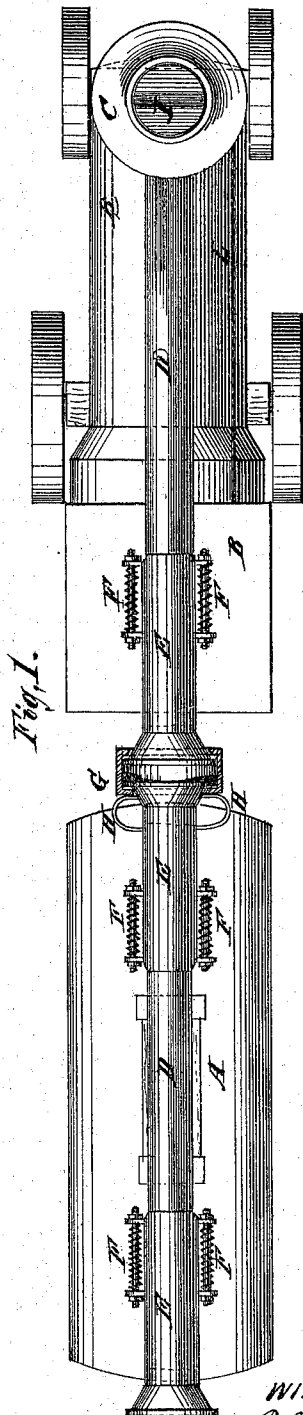


A. STORM.

Improvement in Smoke-Conductors for Locomotives.

No. 131,639.

Patented Sep. 24, 1872.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALFRED STORM, OF MATTEAWAN, NEW YORK.

IMPROVEMENT IN SMOKE-CONDUCTORS FOR LOCOMOTIVES.

Specification forming part of Letters Patent No. 131,639, dated September 24, 1872.

To all whom it may concern:

Be it known that I, ALFRED STORM, of Matteawan, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Self-Adjusting Smoke-Conductor for Locomotives, of which the following is a specification:

In the accompanying drawing, Figure 1 is a top view of a locomotive and one car, to which my improved smoke-conductor has been applied, part being broken away to show the construction. Fig. 2 is a side view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved device for conducting the smoke to and discharging it at the rear end of the train, and which shall be simple in construction, durable, not liable to get out of order, and self-adjusting to the various positions that the cars may take with respect to each other in passing around curves, &c.; and it consists in the construction and combination of the various parts of the device, as hereinafter more fully described.

A represents a railroad-car, B a locomotive, and C its smoke-stack. In the rear side of the smoke-stack C is secured the end of a pipe, D, the other end of which terminates at the rear end of the locomotive B. To the top of each car A of the train is attached a similar pipe, D. The pipes D are all stationary, and their ends are all at the same level, so as to coincide with each other when the cars are run together. Upon the ends of the pipes D are fitted sleeves E, which are held outward by coiled or equivalent springs F, placed upon guide-pins, which pass through lugs attached to said pipes and sleeves, and against which lugs the ends of the said springs rest. The outer ends

of the sleeves E are made bell-shaped, and are flanged, as shown in Figs. 1 and 2, which ends abut against each other, and are held in contact as the cars play upon their couplings by the springs F. G is a flanged ring cap to receive the adjacent ends of the sleeves E, to cover the openings formed between them when the train passes around a curve, and thus prevent the escape of smoke through said openings.

The flare of the ends of the sleeves E allows the caps G to accommodate themselves to the positions of the said sleeves in passing around curves. As the cars again come into line the caps G are brought back into position by the springs H, attached to said sleeves E, and which rest against the flanges of the said caps G.

In the stack C just above the opening leading into the pipe D is fitted a valve, I, which is attached to a shaft, J, which works in bearings in the stack C. One end of the shaft J projects and has a crank, K, formed upon it, the weight of which should be sufficient to bring the said valve back to its place when released. To the end of the crank K is attached a cord, L, which passes back into such a position that it may be conveniently reached and operated by the engineer when he wishes the smoke to pass out through the said smoke-stack.

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

The springs F, arranged on pipe D upon pins placed in slots of sleeves E, as and for the purpose described.

ALFRED STORM.

Witnesses:

R. L. CARPENTER,
JOHN G. SANDFORD.