

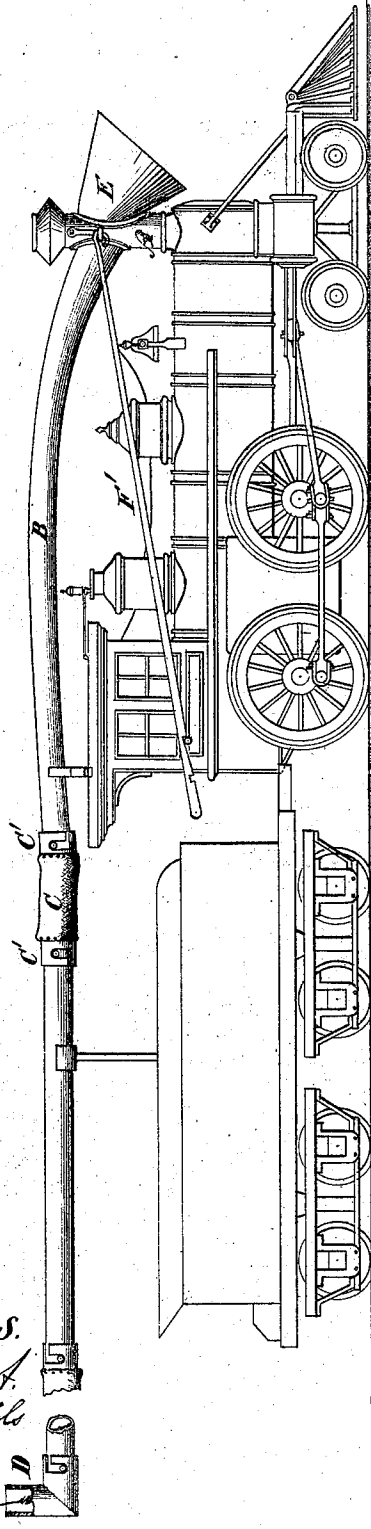
T. De CODEZO.

Smoke and Spark Conduit for Railroad Trains.

No. 143,812.

Patented Oct. 21, 1873.

Fig. 1.



Witnesses.
A. Ruppert
R. J. Eils

Fig. 2.

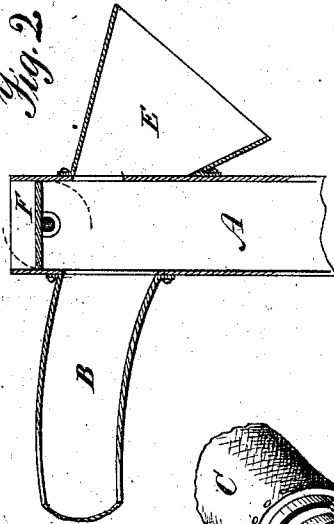
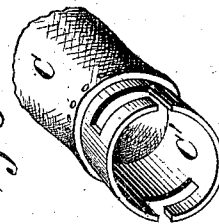


Fig. 4.



Fig. 3.



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Attys

UNITED STATES PATENT OFFICE.

THOMAS DE CODEZO, OF NEW YORK, N. Y.

IMPROVEMENT IN SMOKE AND SPARK CONDUITS FOR RAILROAD-TRAINS.

Specification forming part of Letters Patent No. 143,512, dated October 21, 1873; application filed August 21, 1873.

To all whom it may concern:

Be it known that I, THOMAS DE CODEZO, of the city, county, and State of New York, have invented a new and useful Improvement in Smoke and Spark Conduits for Railroad-Trains; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making part of this specification, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical section of the locomotive uptake and attachments. Fig. 3 is a perspective view of one of the connections, and Fig. 4 is a section and elevation of the same.

The same letters are employed in all the figures in the indication of identical parts.

The object of this invention is to relieve the passengers in railway-cars from the annoyance of smoke and sparks, which has greatly increased since the general use of soft coal in the fire-boxes of the locomotives. Pipes, extending from the locomotive to the rear of the train, have heretofore been proposed to be used for the conveyance of the products of combustion to the rear of the trains. My improvements are designed to avoid some of the difficulties heretofore encountered, and to adapt the same to practical application. Their character will be particularly designated in the following specification and claims.

In the annexed drawings, A is the uptake of the locomotive. To this is connected a pipe, B, opening below the top of the uptake, and extending over the locomotive, tender, and train of cars. When the pipe leads out of the uptake and over the locomotive it is at first curved upward, so as to afford an easy passage for the draft without the resistance incident to the transition of the same from a vertical to a directly horizontal direction. The pipe B is made in sections, permanently attached to each car. It is connected by the flexible sections C C. These connections are formed by two metallic bayonet-joint pipes, C¹ C², by which they are attached to the pipes B, connected by tubes made of a flexible mate-

rial, such as canvas covered by a fire-proof coating, and having within them a coiled wire, C², which, yielding in every direction, will permit the cars to play freely with the irregularities of the track without closing the pipes so as to interfere with the escape of the draft. In front of the uptake and opening into it is placed the funnel-formed pipe E, inclining downward in front and opening into the uptake above the level of the escape-pipe B, so that the draft of air caught by the funnel shall be directed upward into the pipe B to prevent the reaction of the entering current against the draft ascending from the flues of the locomotive through the uptake. On the rear end of the pipe B may be placed an elbow, D, to give an upward direction to the products of combustion. A butterfly-valve, F, is placed in the top of the uptake, one of the trunnions extending through the uptake, and having attached thereto an arm, to which is pivoted a rod, F', extending backward and within reach of the engineer. This valve should be closed when the locomotive is moving forward, and may be opened so as not to interfere with the draft when it is stationary or moving backward.

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

1. In combination with the uptake and pipe B, a funnel-formed pipe, E, opening in front of the uptake, inclined and opening into the uptake above the level of the bottom of the pipe B, substantially as set forth.

2. In combination with the uptake and sectional pipe B, the connections C, formed of a flexible fire-proof casing and internal spiral coil, C², and connected with the pipes B by the bayonet-joint C¹, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS DE CODEZO.

Witnesses:

WM. A. ANDRE,
CHARLES SAPPIN.