

(No Model.)

C. STROOMANN.
LOCOMOTIVE BOILER.

No. 578,682.

Patented Mar. 9, 1897.

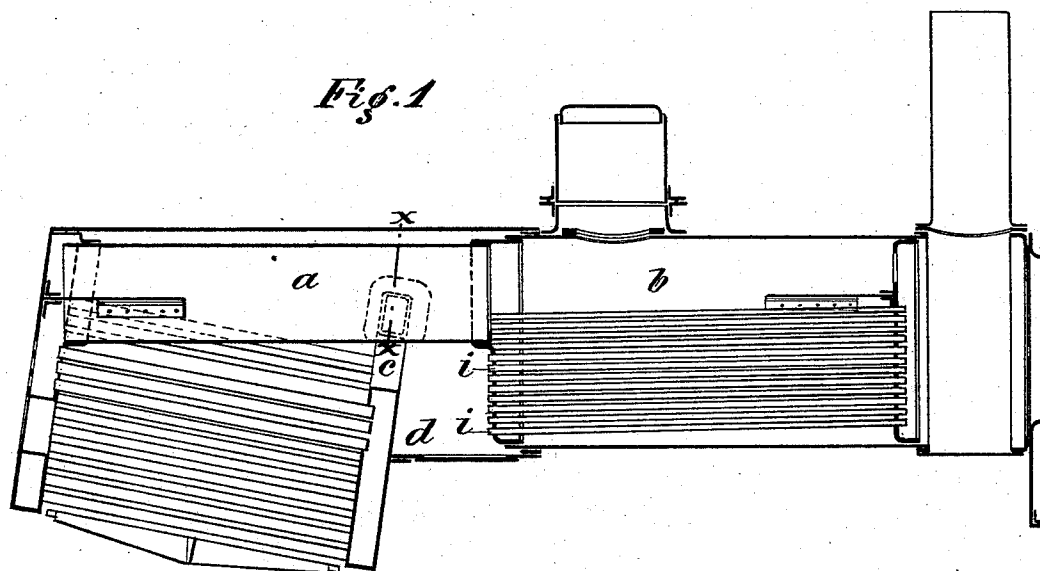


Fig. 2

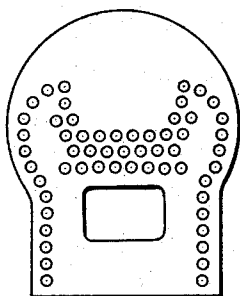
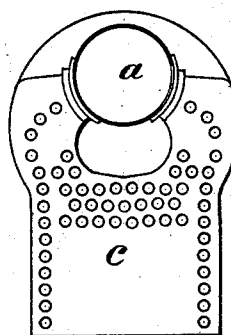


Fig. 3



Witnesses:
Fritz Schröder,
Friedrich Sasse.

Inventor:
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Attorney

UNITED STATES PATENT OFFICE.

CARL STROOMANN, OF COLOGNE, GERMANY.

LOCOMOTIVE-BOILER.

SPECIFICATION forming part of Letters Patent No. 578,682, dated March 9, 1897.

Application filed October 17, 1895. Renewed January 28, 1897. Serial No. 621,124. (No model.) Patented in Germany December 21, 1891, No. 65,093.

To all whom it may concern:

Be it known that I, CARL STROOMANN, a subject of the King of Prussia, Emperor of Germany, residing at Cologne, in the German Empire, have invented certain new and useful Improvements in Locomotive-Boilers, (for which I have obtained a patent in Germany, No. 65,093, dated December 21, 1891;) and I do hereby declare the following to be a full specification.

This invention relates to locomotive-boilers having a two-chamber water-tube boiler at the place of the fire-box.

In the accompanying drawings, Figure 1 is a longitudinal section; Fig. 2, a front elevation; and Fig. 3, a cross-section on line *x x* of Fig. 1, partly in elevation.

The upper part *a* of the water-tube boiler is arranged above the middle line of the fire-tube boiler *b*, so that both boilers are connected in the water-space and the steam-space, so as to form a surface of evaporation similar to the one in ordinary locomotive-boilers.

The chamber *c* is placed in such a way before the fire-tubes *i* that the connection of the fire-spaces is left open, as shown in Fig. 3, and whereby the space *d* is provided for the ashes and as the combustion-chamber.

The lateral arrangement of the chamber *c* sidewise to the upper boiler *a* permits of giving

to the boiler the same form as that of a boiler having an ordinary fire-box, with the difference, however, that it has a greater source of power.

The arrangement of the water-tubes behind the fire-tubes instead of under the same produces also a greater space of combustion.

Having thus described my invention, what I claim is—

In a locomotive-boiler, the combination of a fire-tube section, a fire-box section connected with the rear end thereof, and a combustion-chamber between the lower parts of the two sections; the fire-box section provided with water-tubes and a boiler *a*, the latter located between the water-tubes and the crown of the boiler proper, and having its forward end connected with the fire-tube section above the middle line thereof, so that the two sections shall have a uniform surface of evaporation, the sides of the boiler *a*, provided with the chamber *c*, substantially as and for the purpose set forth.

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

CARL STROOMANN.

Witnesses:

FRITZ SCHRÖDER,
FRIEDRICH SASSE.