

No. 817,474.

PATENTED APR. 10, 1906.

D. DRUMMOND.
SPARK PREVENTER FOR LOCOMOTIVES.

APPLICATION FILED DEC. 12, 1905.

Fig. 2.

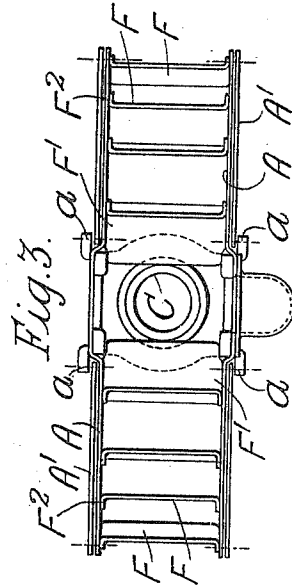
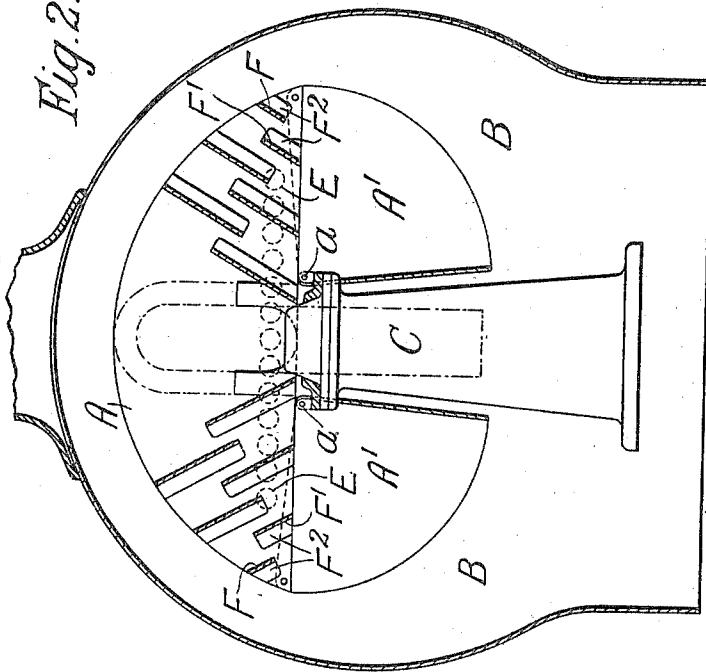
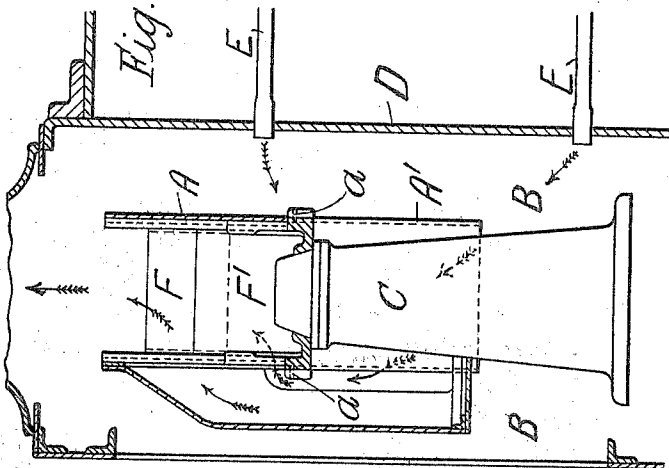


Fig. 1.



WITNESSES:

George G. Schoenlank

Wm. H. Berrigan

INVENTOR,

DUGALD DRUMMOND,

BY *Frank O. Russell*
HIS ATTORNEY.

UNITED STATES PATENT OFFICE.

DUGALD DRUMMOND, OF SURBITON, ENGLAND.

SPARK-PREVENTER FOR LOCOMOTIVES.

No. 817,474.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed December 12, 1905. Serial No. 291,372.

To all whom it may concern:

Be it known that I, DUGALD DRUMMOND, a subject of the King of the United Kingdom of Great Britain and Ireland, residing at Surbiton, Surrey, England, have invented a certain new and useful Improvement in Spark-Preventers for Locomotives, of which the following is a specification.

This invention relates to spark-preventers for locomotives; and it has for its object to make fuller provision against liability of live sparks or cinders drawn by the blast through the fire-tubes passing from the smoke-box out of the funnel or chimney.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of the smoke-box end of a locomotive-boiler, showing the improved spark-preventer fitted therein around the upper end of the blast-pipe. Fig. 2 is a cross-sectional view thereof, and Fig. 3 is a plan view of the spark-preventer.

According to the present invention and as shown by these drawings two sets of side wings A A' are fitted in the smoke-box B, extending from the blast-pipe C parallel with the tube-plate D, the upper wings A being stationary and being additional to the lower wings A', pivoted heretofore at a, so as to be adapted to fold or swing upward to allow of access for cleaning the fire-tubes E.

In the stationary wings A, outside of which the movable wings A' are swung, a series of

baffle-plates F F' are secured, the said plates being bent at their ends to form flanges F², which are riveted or bolted to the inside of the wings. The baffle-plates F F' are set at an inclination and are so arranged that a lower series F' extends into spaces between an upper series F and the whole serve to intercept the direct outflow of the waste fire-gases which are compelled to traverse a sinuous course. Any live sparks or cinders drawn through the fire-tubes strike against the baffle-plates F F' and drop therefrom into the lower part of the smoke-box, from which the collecting material may be removed periodically.

Having now described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

A spark-preventer for locomotives comprising, in combination, with the smoke-box and blast-pipe and wings pivoted on either side of the latter, of stationary side wings located above said pivoted wings and connected together by baffle-plates set at an inclination to cause the fire-gases flowing toward the chimney to traverse a sinuous course.

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

DUGALD DRUMMOND.

Witnesses:

CHARLES GALL WATT
JOHN HAZELDINE.