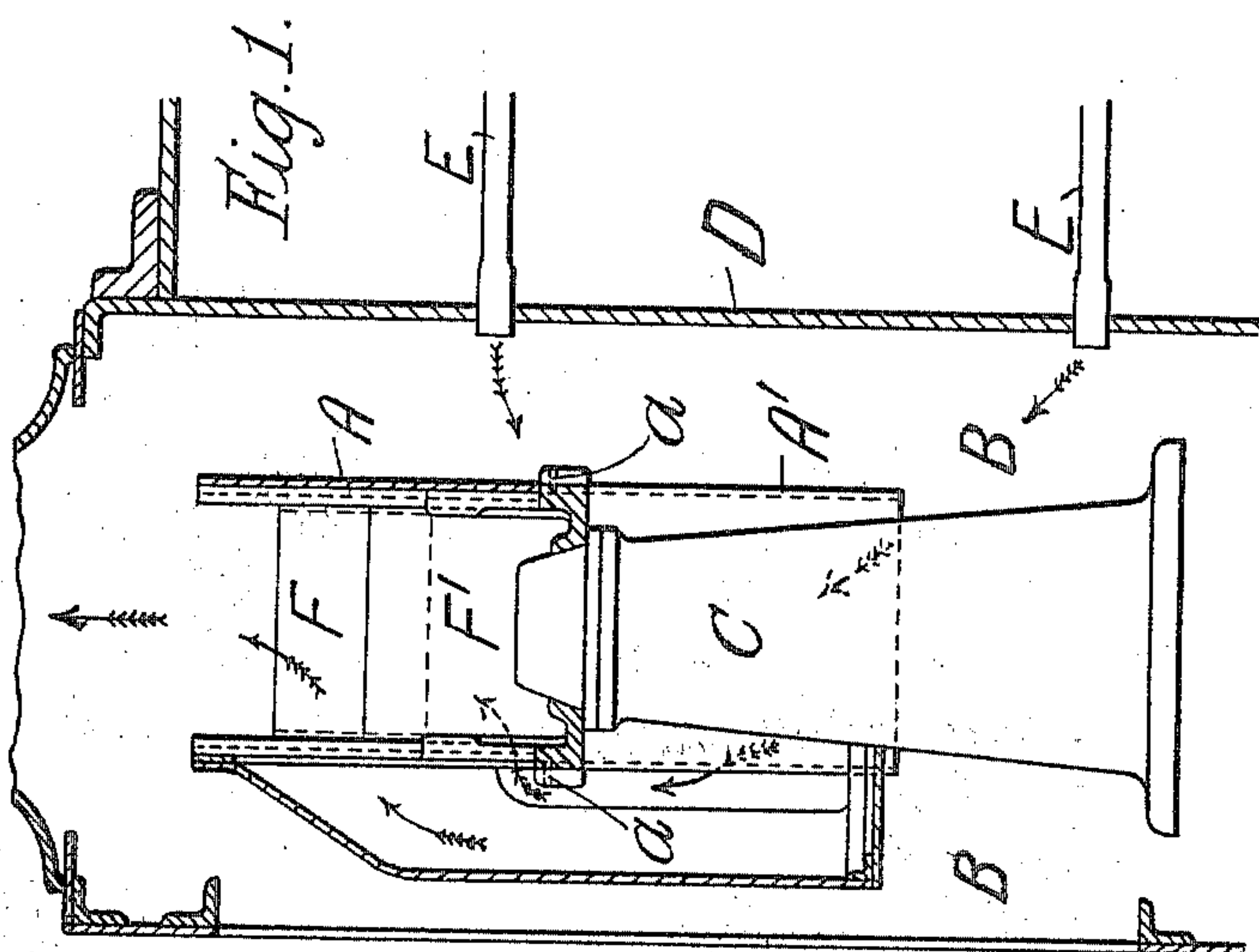
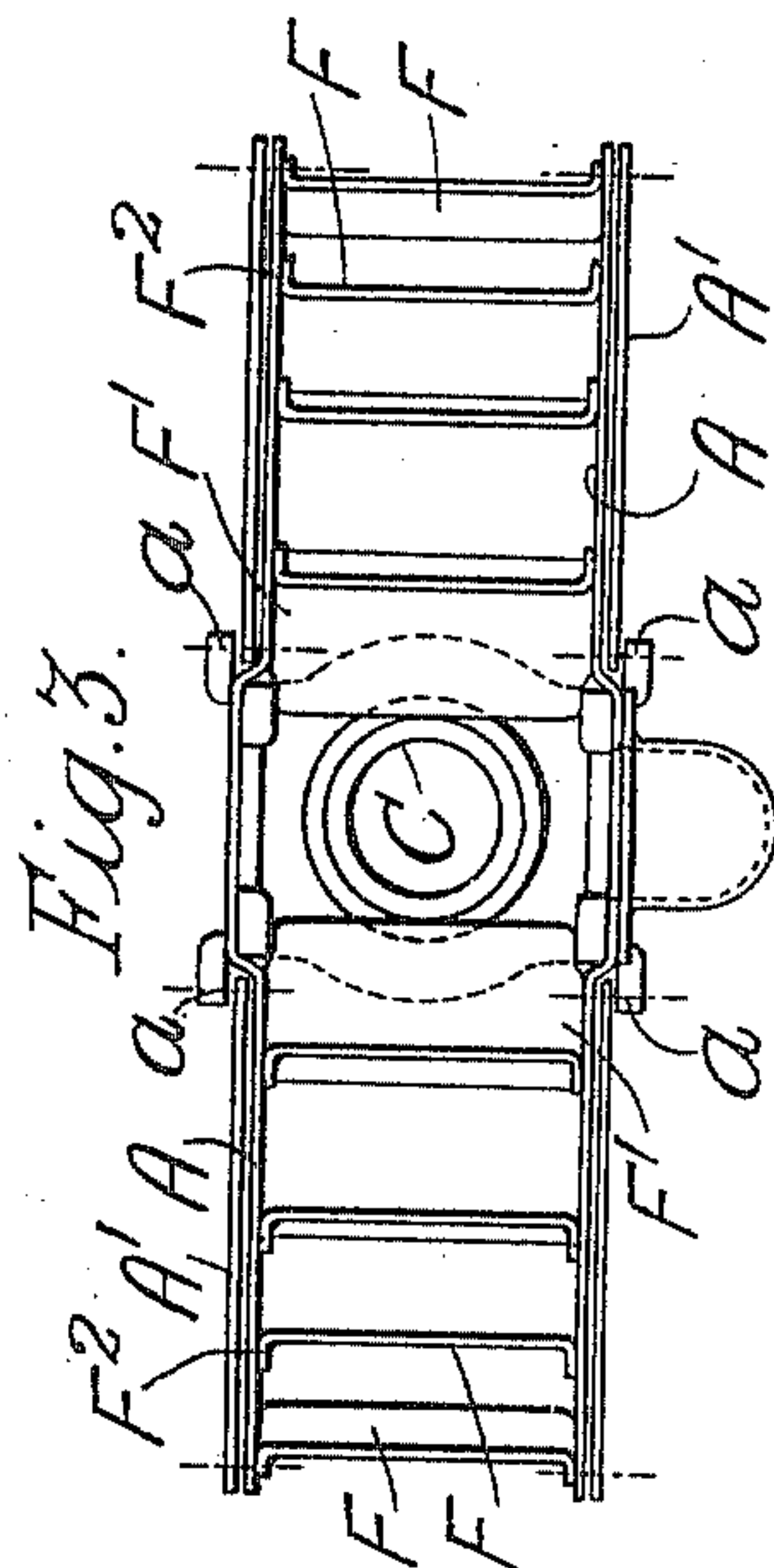
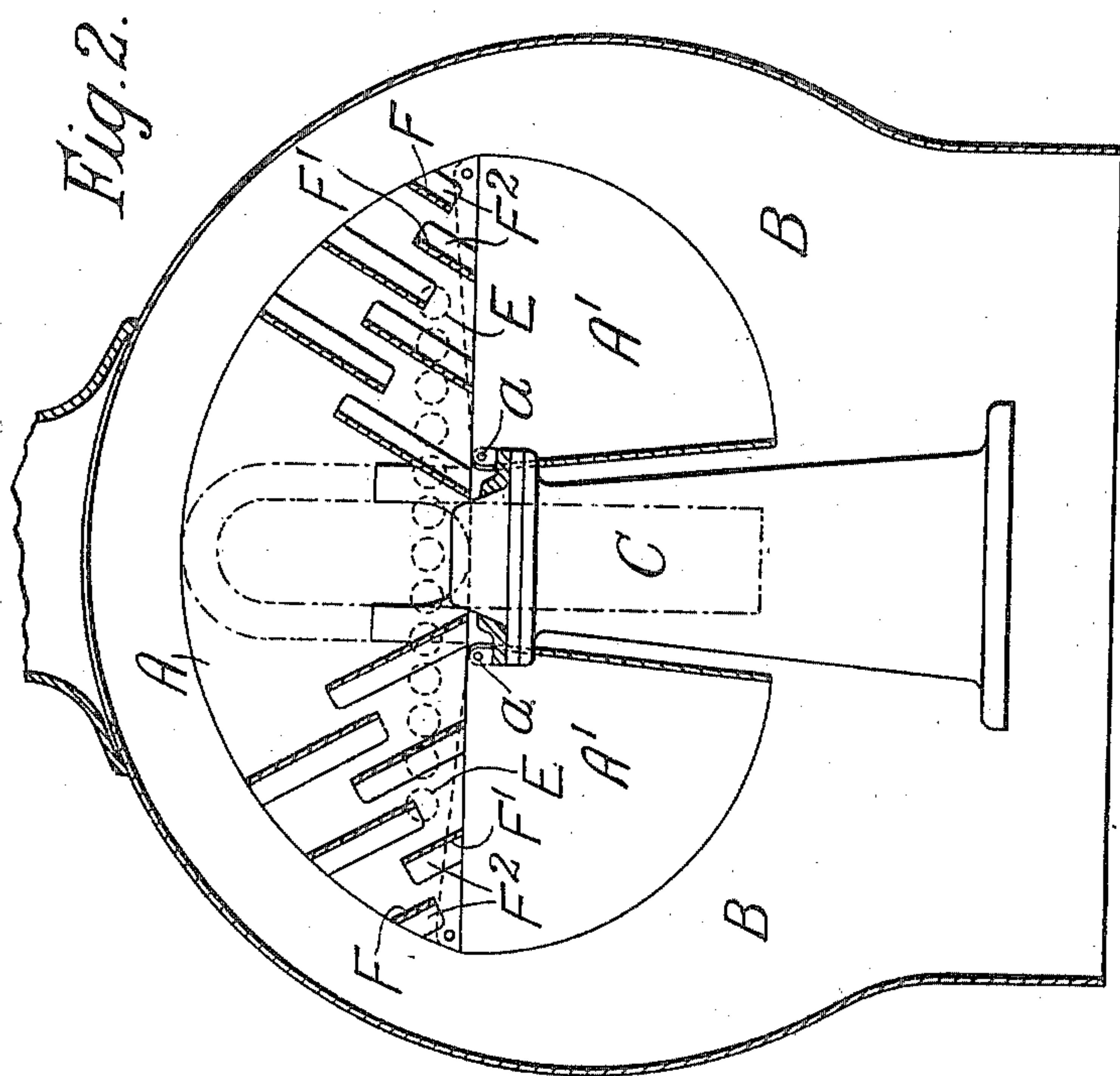


No. 817,474.

PATENTED APR. 10, 1906.

D. DRUMMOND.
SPARK PREVENTER FOR LOCOMOTIVES.

APPLICATION FILED DEC. 12, 1905.



WITNESSES:

George G. Schoenbank

Chas. H. Corrigan.

INVENTOR,
DUGALD DRUMMOND.

BY *Frank Olden*
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.