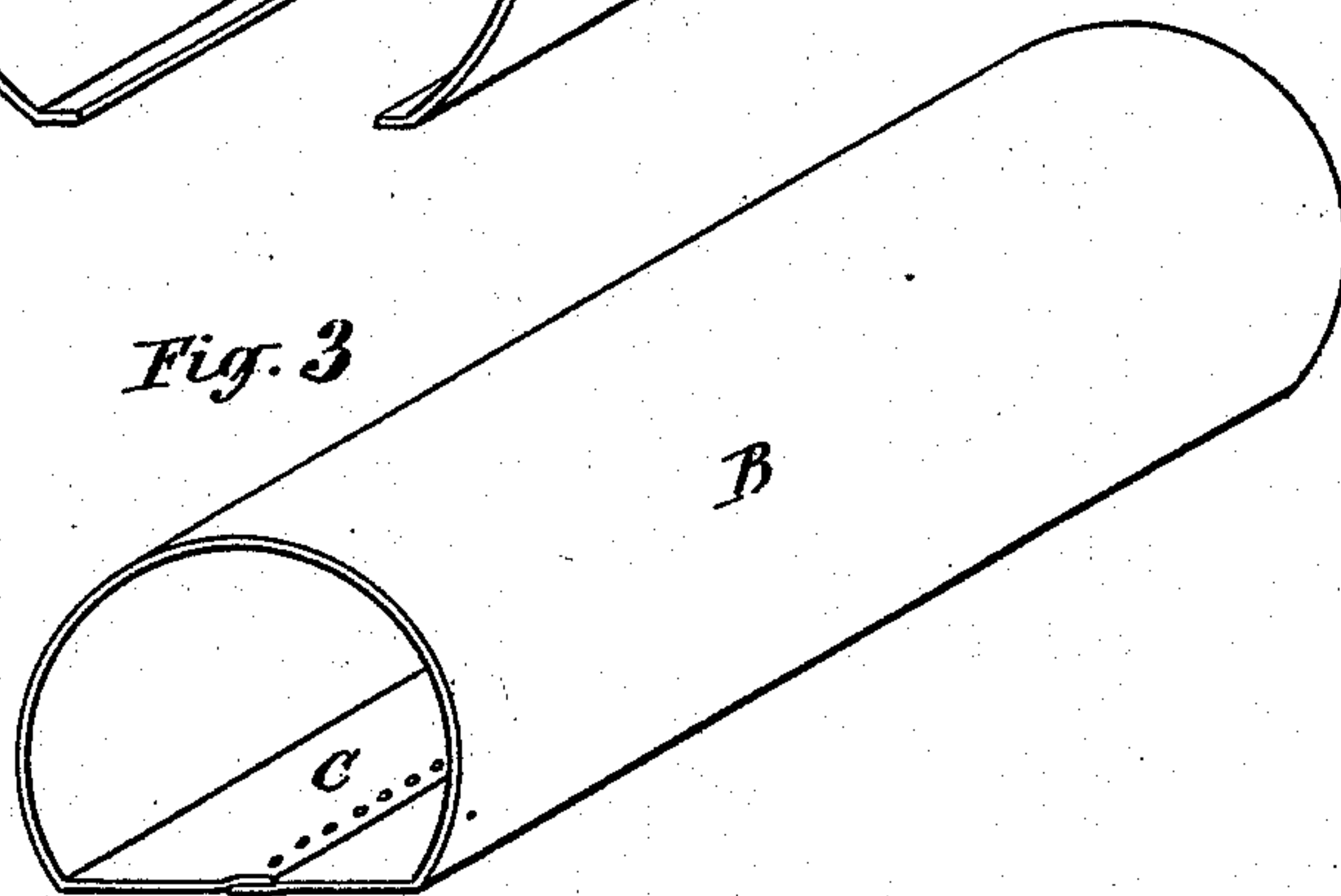
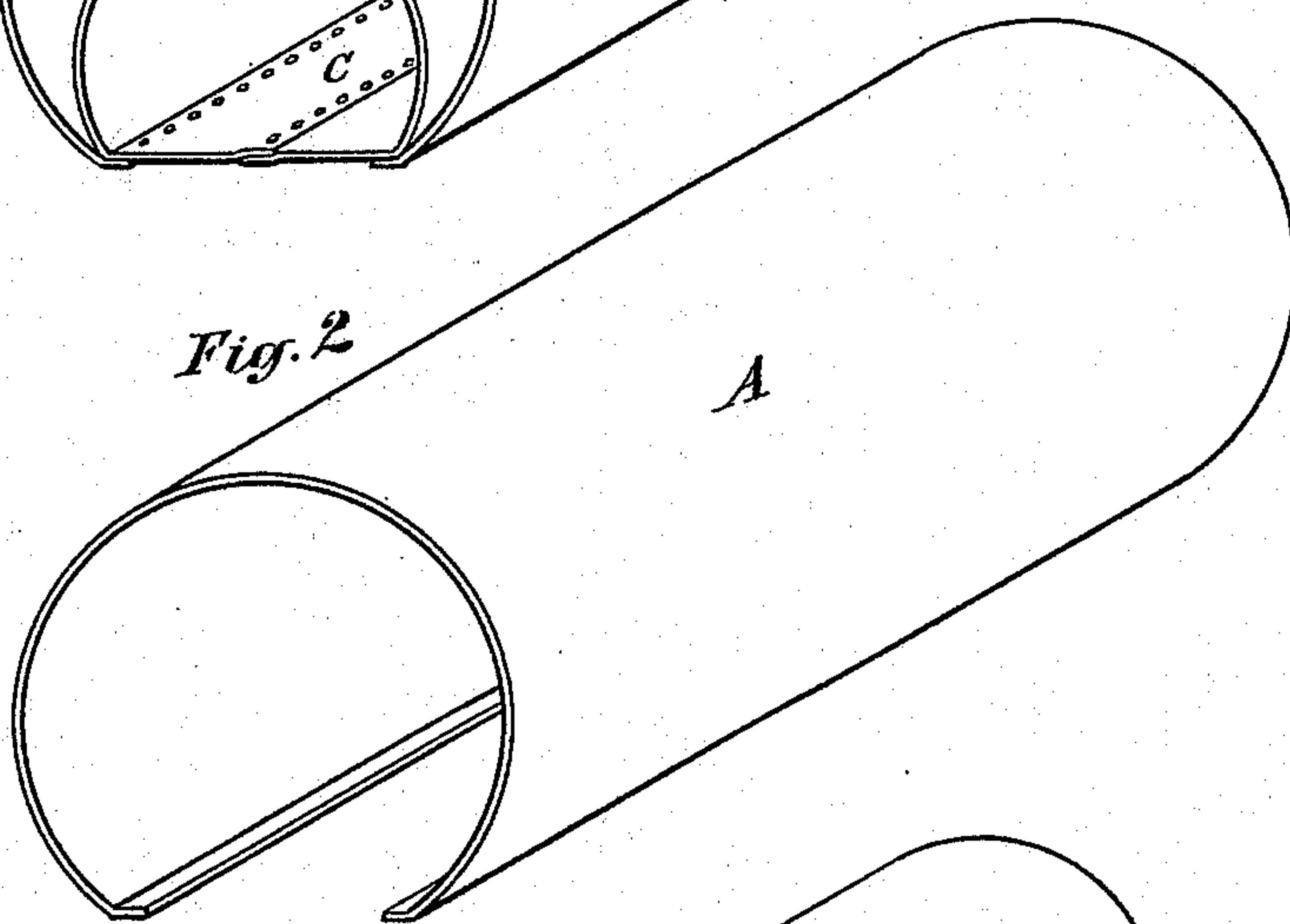
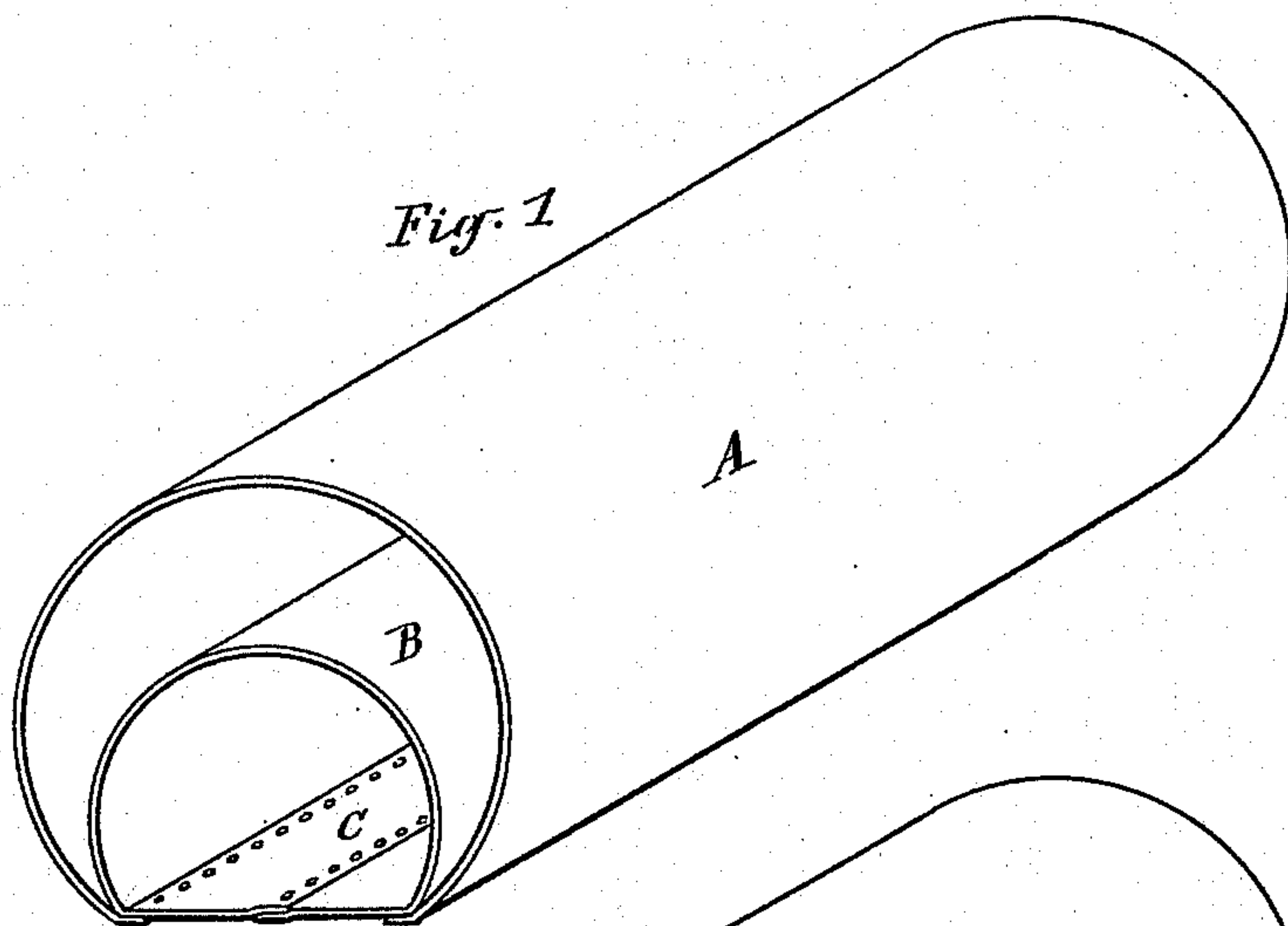


W. R. MICHENER.
Steam-Boiler.

No. 224,836.

Patented Feb. 24, 1880.



WITNESSES:
E. Laess
C. Bendisen

INVENTOR:
William R. Michener
per Bull, Laess & Hay
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM R. MICHENER, OF OSWEGO, NEW YORK, ASSIGNOR TO AMES IRON
WORKS, OF SAME PLACE.

STEAM-BOILER.

SPECIFICATION forming part of Letters Patent No. 224,836, dated February 24, 1880.

Application filed December 15, 1879.

To all whom it may concern:

Be it known that I, WILLIAM R. MICHENER, of Oswego, in the county of Oswego, in the State of New York, have invented new and useful Improvements in Steam-Boilers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention has chiefly reference to the steam-boiler for which I obtained Letters Patent of the United States No. 193,378, and dated July 24, 1877; and it consists in constructing the main fire-flue of an entire shell with a flat bottom, and attaching to the side edges of said bottom the longitudinal edges of a segmental shell of greater periphery than the said flue, and surrounding the sides and top of same, substantially as hereinafter more fully described.

The invention is fully illustrated in the accompanying drawings, wherein Figure 1 is an isometric view of my improved construction and combination of the main shell of the boiler and main fire-flue; and Figs. 2 and 3 are detached views of the said parts, respectively.

Similar letters of reference indicate corresponding parts.

B represents the main fire-flue or fire-arch,

which in this case I make of an entire shell with a flat bottom, C. To the side edges of this bottom I attach the longitudinal edges of the segmental main shell A, which is of greater circumference than the sides and top of the flue B, and surrounds the same.

The flat bottom C of the flue B forms the tie for the main outer shell, A, without the necessity of riveting thereon an extra flat plate, as described in my application for patent (marked A) filed December 4, 1879.

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

The main fire-flue B, constructed of an entire shell with a flat bottom, C, and the segmental outer shell, A, attached at its longitudinal edges to the side edges of the bottom C, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 14th day of November, 1879.

W. R. MICHENER. [L. S.]

Witnesses:

E. LAASS,
JOHN MORGAN.