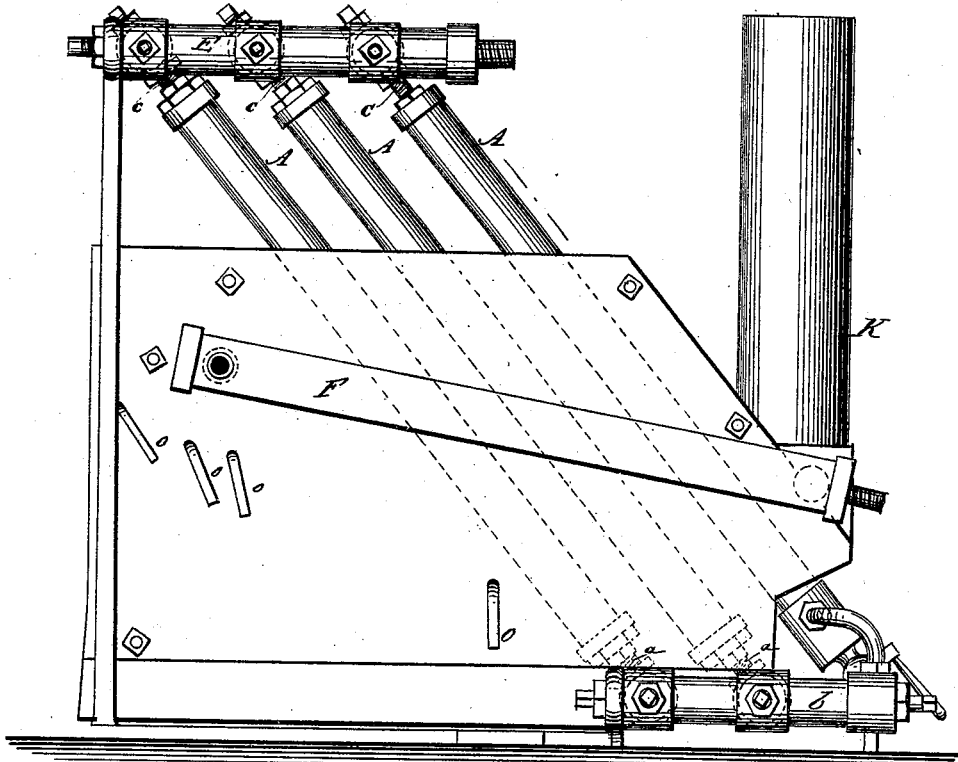
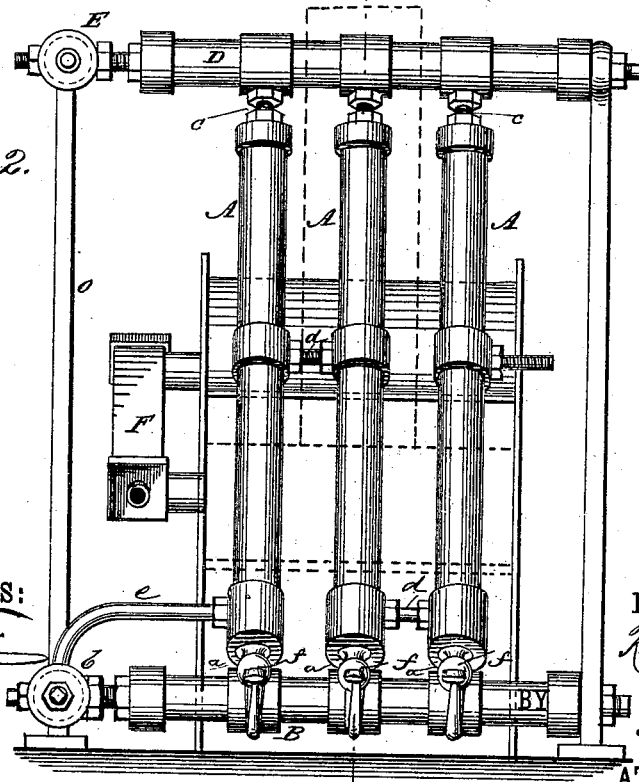


R. COSSLETT, Jr.  
Sectional Boiler.

No. 211,706. *Fig. 1.* Patented Jan. 28, 1879.



*Fig. 2.*



WITNESSES:

*C. Neveux*

*C. Sedgwick*

INVENTOR:

*R. Cosslett Jr*

*Merrill*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

RICHARD COSSLETT, JR., OF BRISTOL, ENGLAND.

## IMPROVEMENT IN SECTIONAL BOILERS.

Specification forming part of Letters Patent No. **211,706**, dated January 28, 1879; application filed August 24, 1878.

*To all whom it may concern:*

Be it known that I, RICHARD COSSLETT, Jr., of Elgin Park, Bristol, in England, have invented a new and Improved Steam-Boiler, of which the following is a specification:

Figure 1 of the drawings is a side elevation, and Fig. 2 a rear view.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

Referring to the drawings, A A are steam-generating tubes, which, in the present case, are placed in an inclined position. These tubes, at their lower ends, are connected with the feed-water pipes B by short pipes *a*, and the pipes B are connected together by the pipe *b*.

The upper ends of the steam-generating tubes A are connected with the horizontal steam-receiving pipes D by short pipes *c*, and the receiving-pipes D are connected together at one end by the pipe E.

The upper and rear row of tubes A are connected together by short tubes *d*, which alternate in position, and the lower end of one of them is connected with the feed-water pipe *b* by a pipe, *e*. The lower ends of the rear tubes are provided with blow-off cocks *f*.

Each tube A is provided with an internal circulating-tube, F, which is supported concentric with it by springs *g*, four of which are secured to each end of the tube F, and press against the inner surface of the tube A.

The circulating-tubes extend from a point several inches below the water-line to within a few inches of the bottom of the tube, allowing sufficient space at the top and bottom for circulation.

The advantage of my boiler is that it has a thorough circulation, a uniform exhaust of steam, and is without a tendency to prime, while the joints are effectually protected from fire.

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

The inclined tubes A, connected by alternating tubes *d*, one of which leads to pipe *b*, in combination with the feed-water pipes B, attached to the said pipe *b*, the steam-receiving pipes D, attached to pipe E, and the screw-coupling pipes *a c*, all arranged substantially as and for the purpose described.

RICHARD COSSLETT, JR.

Witnesses:

T. CANISIUS,  
JAMES GRIFFITHS.