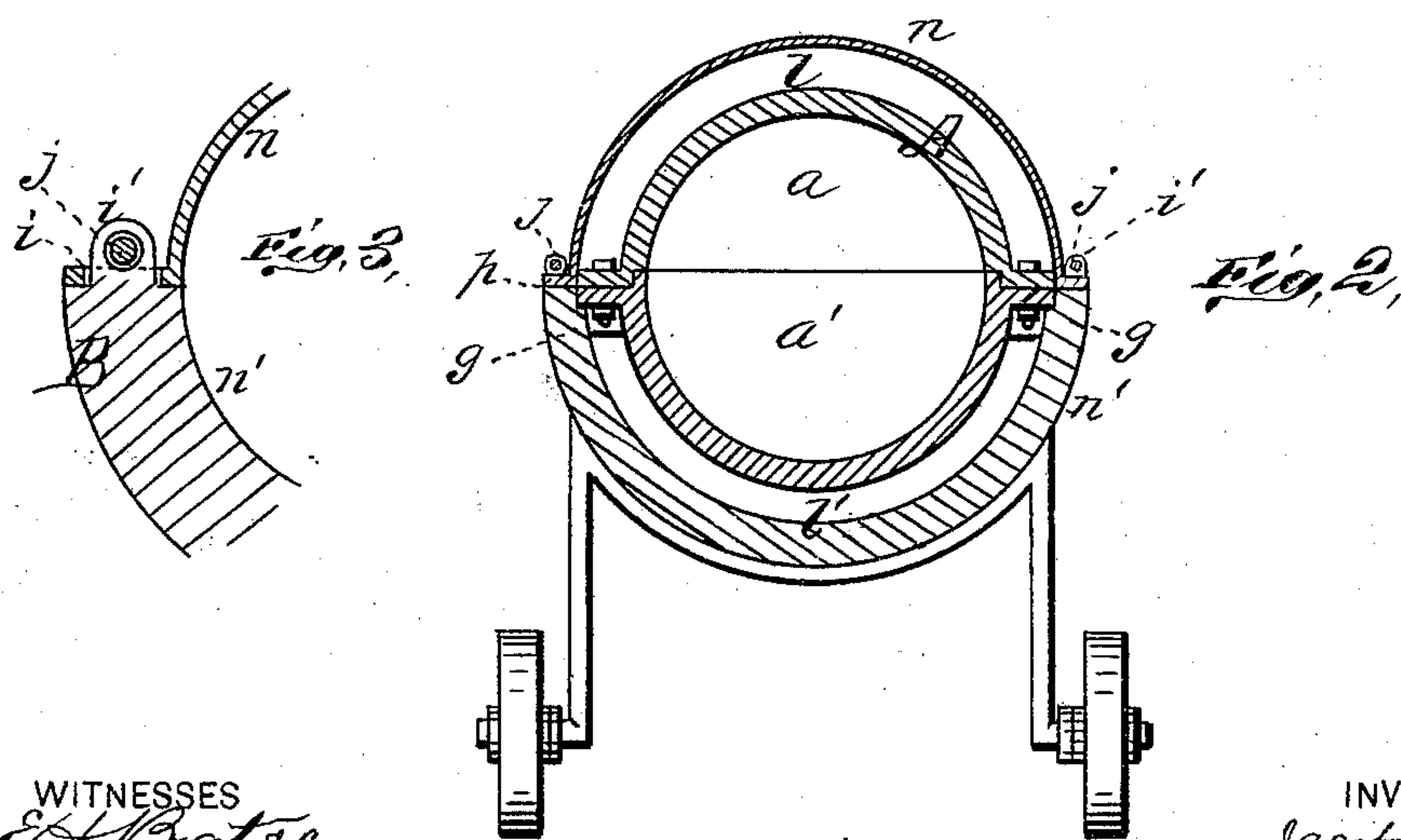
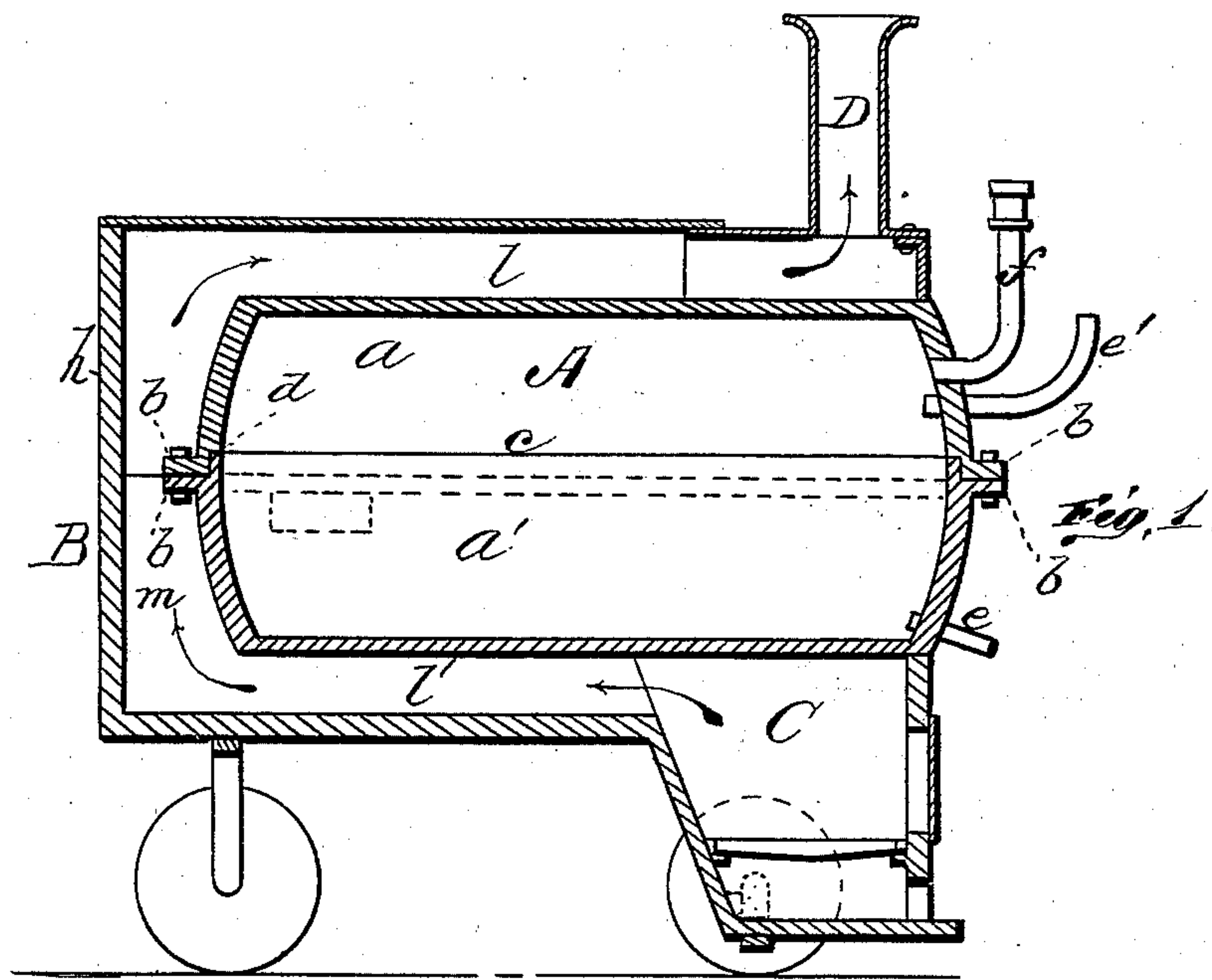


J. SCHOFIELD & D. D. PRYOR.
Steam-Generators.

No. 211,058.

Patented Dec. 17, 1878.



WITNESSES
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JACOB SCHOFIELD AND DAVID D. PRYOR, OF NEWTON, IOWA.

IMPROVEMENT IN STEAM-GENERATORS.

Specification forming part of Letters Patent No. **211,058**, dated December 17, 1878; application filed November 2, 1878.

To all whom it may concern:

Be it known that we, JACOB SCHOFIELD and DAVID D. PRYOR, both of Newton, in the county of Jasper and State of Iowa, have invented a new and valuable Improvement in Steam-Generators; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of our improved steam-generator. Fig. 2 is a vertical cross-section thereof, and Fig. 3 is a detail view.

This invention has relation to improvements in steam-generators, consisting of a cylindrical boiler made in two flanged sections, the one having a projecting L-shaped recess extending entirely around it, and the other a corresponding recess adapted to form a joint therewith, and its enveloping casing divided by the boiler into the upper and lower chambers, and having a removable top and a rod for operating the same, as will be hereinafter shown and described.

In the annexed drawings, the letter A designates the boiler of our improved steam-generator, formed of two semi-cylindrical sections, *a a'*, having each an L-shaped flange, *b*. The lower section, *a'*, has upon its inner edge a raised lip, *c*, extending completely around it, that is received in a corresponding recess, *d*, upon the upper section, *a*, or the reverse. The cylinder A has the usual feed-water and steam pipes *e e'*, a safety-valve, *f*, and water-gages, and is suspended within a cylindrical casing of greater diameter. This casing has upon its inside a ledge, *g*, upon which the flange *b* of the boiler rests, and has an unbroken end wall, *h*. It is provided at its front end with a fire-box, C, having the customary grate, doors, and dampers.

The flanges *b*, and the boiler from which they project, divide the casing into an upper and lower chamber, lettered, respectively, *l l'*,

that communicate with each other only through the ascending passage *m* between the rear head of the boiler and the end wall, *h*, of the casing. The lower passage, *l'*, opens into the furnace C, and the products of combustion pass out of the said furnace through the passage *l'*, then up the flue *m* into the passage *l*, whence they escape into the open air through a stack, D, at the front end of the said casing. The boiler is thus completely enveloped in flames, and as the steam rises it is superheated in the upper portion thereof before passing into the steaming-vessel through the steam-pipe *e'*. The upper half, *n*, of the casing B is separate and distinct from the lower half, *n'*, and is provided with orifices *i*, through which eyebolts *i'* upon the latter extend. These orifices are made in a flange, *p*, of the upper section. The parts of the casing are connected together by means of through-rods *j*, extending through the said eye-bolts. By removing these rods the upper section, *n*, may be lifted off, and any accumulation of cinders in the upper passage readily removed. The casing is mounted upon wheels E, and is thereby transportable from place to place.

What we claim as new, and desire to secure by Letters Patent, is—

The steam-generator for feed-steamers herein described, consisting of a cylindrical boiler, A, made in two flanged sections, the one having a projecting L-shaped recess extending entirely around it, and the other a corresponding recess adapted to form a joint therewith, and its enveloping casing B, divided by the boiler into the upper and lower chambers, *l l'*, and having a removable top, *n*, and rod *j*, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JACOB SCHOFIELD,
DAVID D. PRYOR.

Witnesses:

W. M. PRYOR,
JOSEPH COOPER.