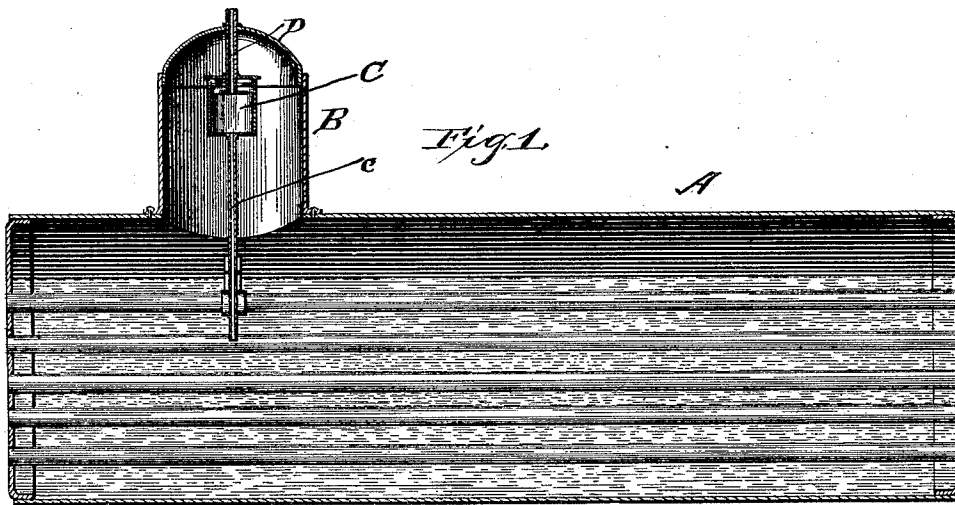
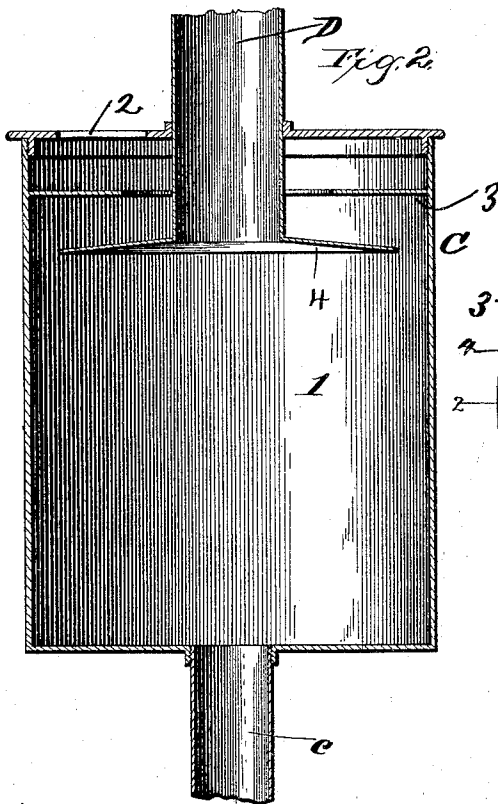
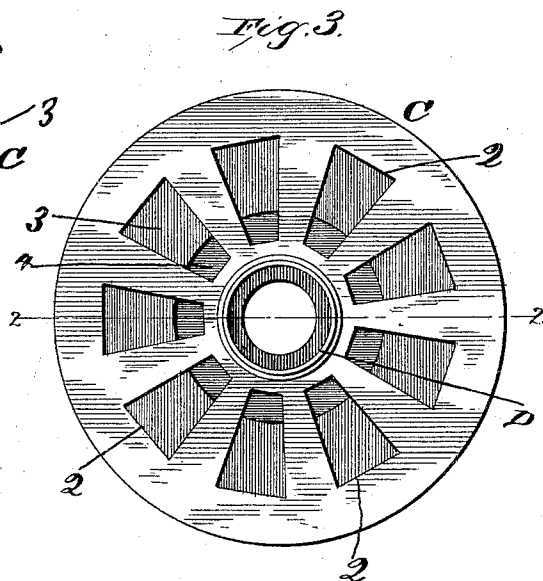


(No Model.)

E. ERXLEBEN.
STEAM SEPARATOR.

No. 458,622.

Patented Sept. 1, 1891.



Witnesses:

N. M. Rhein.

E. H. Hurdman.

Inventor.

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UNITED STATES PATENT OFFICE.

EDUARD ERXLEBEN, OF CHICAGO, ILLINOIS.

STEAM-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 458,622, dated September 1, 1891.

Application filed April 11, 1891. Serial No. 388,585. (No model.)

To all whom it may concern:

Be it known that I, EDUARD ERXLEBEN, a subject of the Emperor of Germany, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Steam-Separators, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to a novel construction in dry-steam separators, the object being to provide a device of this character combining efficiency of operation with simplicity of construction.

15 The invention consists in features of construction and combinations of parts herein-after fully described and specifically claimed.

In the accompanying drawings, illustrating my invention, Figure 1 is a vertical section 20 of a boiler provided with a steam-separator constructed in accordance with my invention. Fig. 2 is a vertical section of the separator on an enlarged scale, and Fig. 3 is a top plan of same.

25 Referring to said drawings, A indicates a steam-boiler of familiar construction, and B the steam-dome. C indicates the steam-separator, which comprises a cylindric casing 1, located within the upper portion of the said dome B. The said casing 1 is closed at its 30 lower end and communicates by means of a pipe *c* with the interior of the boiler and below the level of the water in said boiler. The upper end of said casing is provided with a series of openings 2, though the steam can 35 enter the casing from the steam-dome B. Within the said casing and a little below the

upper end an inwardly-projecting ring or flange 3 is arranged.

D is a pipe for conveying the steam from 40 the boiler to the parts where it is to be used. The said pipe D enters through the upper end of the casing C and passes downwardly below the flange 3, and is provided on its lower end with an outwardly-projecting partition or dia- 45 phragm 4.

It will be seen from the foregoing description that steam passing into the dome will enter the casing C through openings 2 and will pass through the zigzag passage formed 50 by said openings, flange, and partition, which serves to separate the moisture held in suspension from the steam. The said moisture will fall, pass to the bottom of the casing, and pass through the pipe *c* into the boiler, while 55 the dry steam will pass out through the pipe D.

I claim as my invention—

A separator comprising a casing having openings in one end, an internal inwardly-pro- 60 jecting flange located within said casing adjacent said openings, an exit-pipe passing through the said end of the casing and through said flange and provided with an outwardly-projecting partition extending beyond the in- 65 ner edge of said flange, and a pipe or passage communicating with the other end of said casing and with the boiler below its water-line.

In testimony whereof I affix my signature in presence of two witnesses.

EDUARD ERXLEBEN.

Witnesses:

HARRY COBB KENNEDY,
OTTO LUEBKERT.