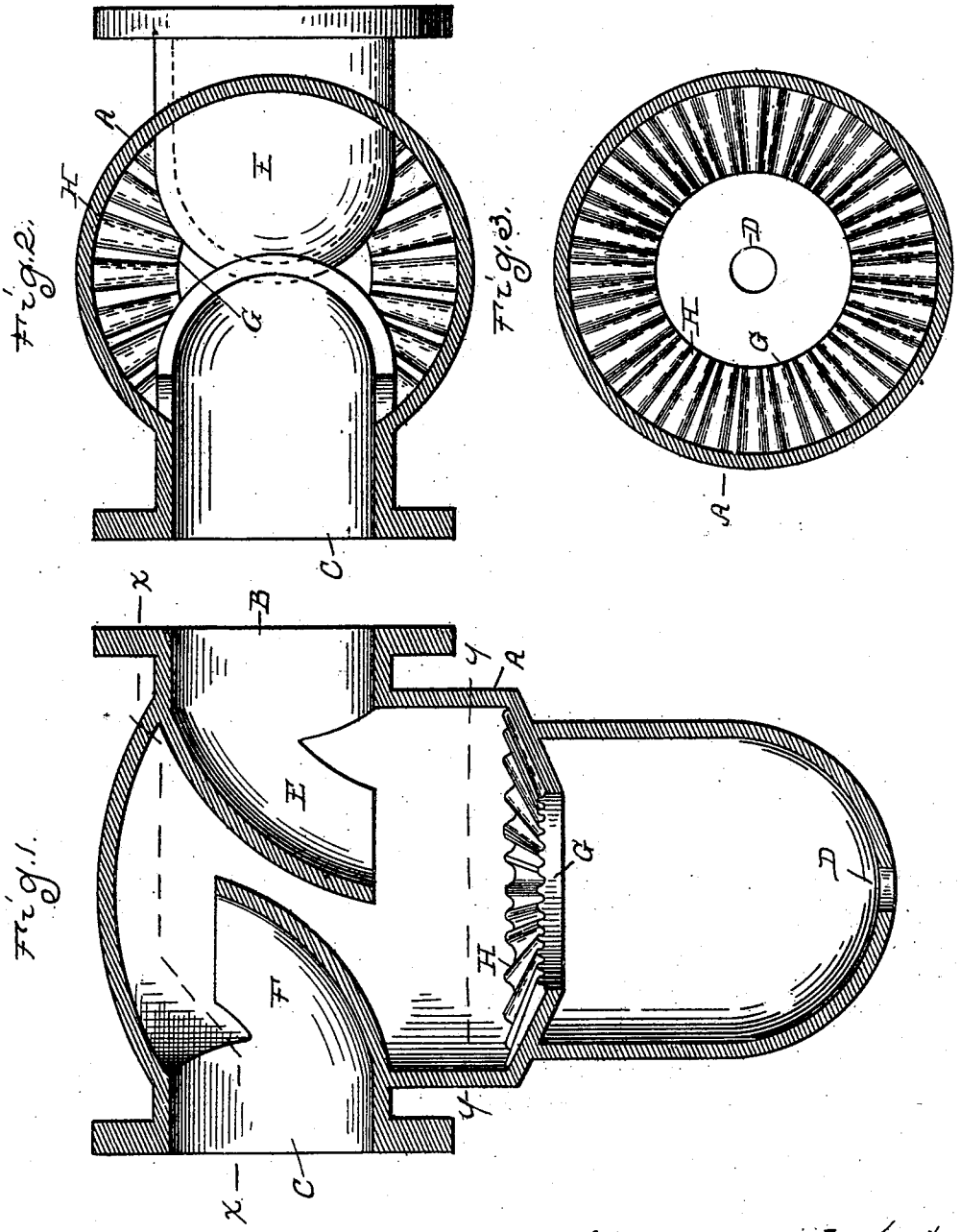
No. 690,389. Patented Jan. 7, 1902.

D. E. AUSTIN.

STEAM SEPARATOR.

(Application filed May 6, 1901.)

(No Model.)



Witnesses
B. C. Smith.
M. Dougherty

Inventor
David E. Austin
by Thos. Prequbee
Attys.

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UNITED STATES PATENT OFFICE.

DAVID E. AUSTIN, OF DETROIT, MICHIGAN, ASSIGNOR OF TWO-THIRDS TO JAMES E. FOLEY AND JAMES C. McGREGOR, OF DETROIT, MICHIGAN.

STEAM-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 690,389, dated January 7, 1902.

Application filed May 6, 1901. Serial No. 59,015. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. AUSTIN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, 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.

The invention relates to a novel type of steam-separator; and it consists in the peculiar construction thereof and in the arrangement and combination of its parts, as hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a vertical central section through my improved separator. Fig. 2 is a section taken on line *x x*, Fig. 1; and Fig. 3 is a section on line *y y*, same figure.

In the drawings thus briefly described the reference-letter A designates the separator-casing, provided with the oppositely-arranged ports B and C for the inlet and outlet of the steam. The top of the casing is closed, as illustrated, and at the bottom is arranged a drip-port D for the passage of the water. Within the separator is a curved deflector E, preferably semicircular in cross-section. As shown, the deflector-plate extends about the upper half of the inlet-port and depends within the casing. At the opposite side of the casing and extending in an opposite direction is a deflector F. This is similar in construction and form to the deflector described, and extends upwardly from the wall of the casing about the lower half of the outlet-port.

G designates an annular baffle-plate extending about the wall of the casing some distance below the deflectors. As shown, this plate is provided with a series of radial corrugations H, as shown in Fig. 3.

Steam entering the inlet-port will be caused to descend within the casing by the deflector E and to strike against the baffle-plate. Before passing out of the casing it is caused to ascend until it reaches the top of the deflector F. Thus the steam is purified and the impurities, including the water, are removed from the chamber I through the drip-passage D.

What I claim as my invention is—

1. A steam-separator, comprising a vertical casing having alining inlet and outlet ports formed in the opposite walls in proximity to the casing-top, a curved deflector-plate semicircular in cross-section arranged about the upper half of the outlet-port and depending within the casing, and a like deflector-plate extending upwardly from the lower half of the outlet-port.

2. A steam-separator, comprising a vertical casing having oppositely-arranged inlet and outlet ports formed therein in proximity to the casing-top, a curved deflector-plate semicircular in cross-section guarding the inlet-port, a similar deflector extending from the lower portion of the outlet-port, and an imperforate annular flange or baffle-plate, radially corrugated, extending about the inner wall of the casing substantially midway between the top and casing-bottom forming a central and unrestricted opening connecting the upper and lower portions of the interior of the casing.

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

DAVID E. AUSTIN.

Witnesses:
L. J. WHITTEMORE,
H. C. SMITH.