

(No Model.)

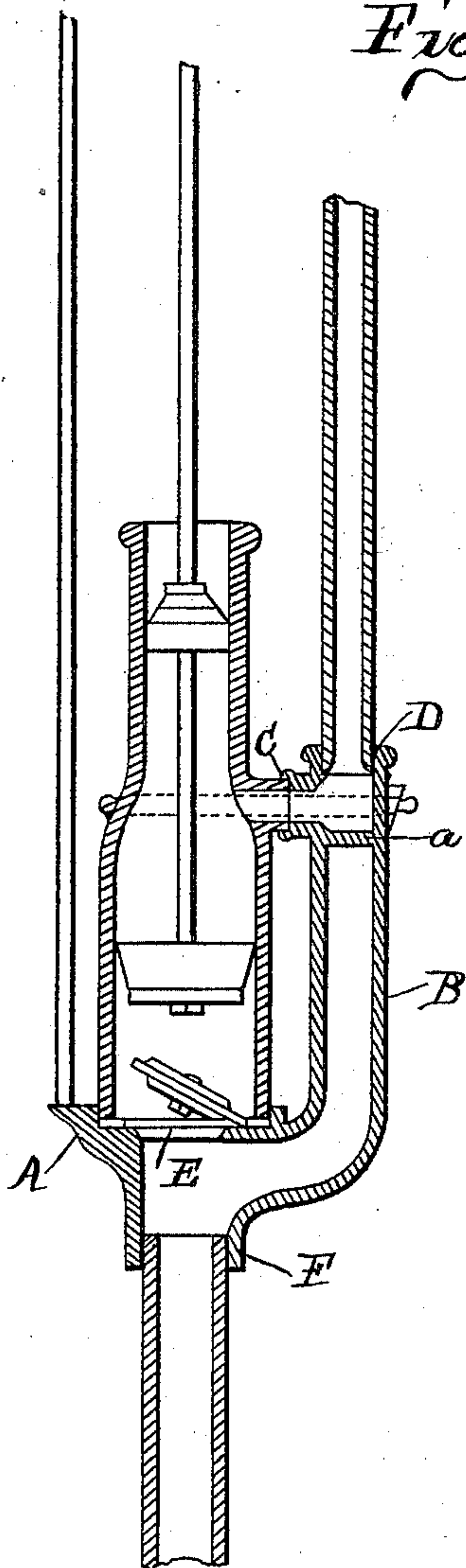
2 Sheets—Sheet 1.

W. EAMES.
PUMP.

No. 302,715.

Patented July 29, 1884.

Fig. 1.



WITNESSES.

C. H. Sheen.
Jas L. Halley.

INVENTOR

W. Eames
H. Eames Attorney

(No Model.)

2 Sheets—Sheet 2.

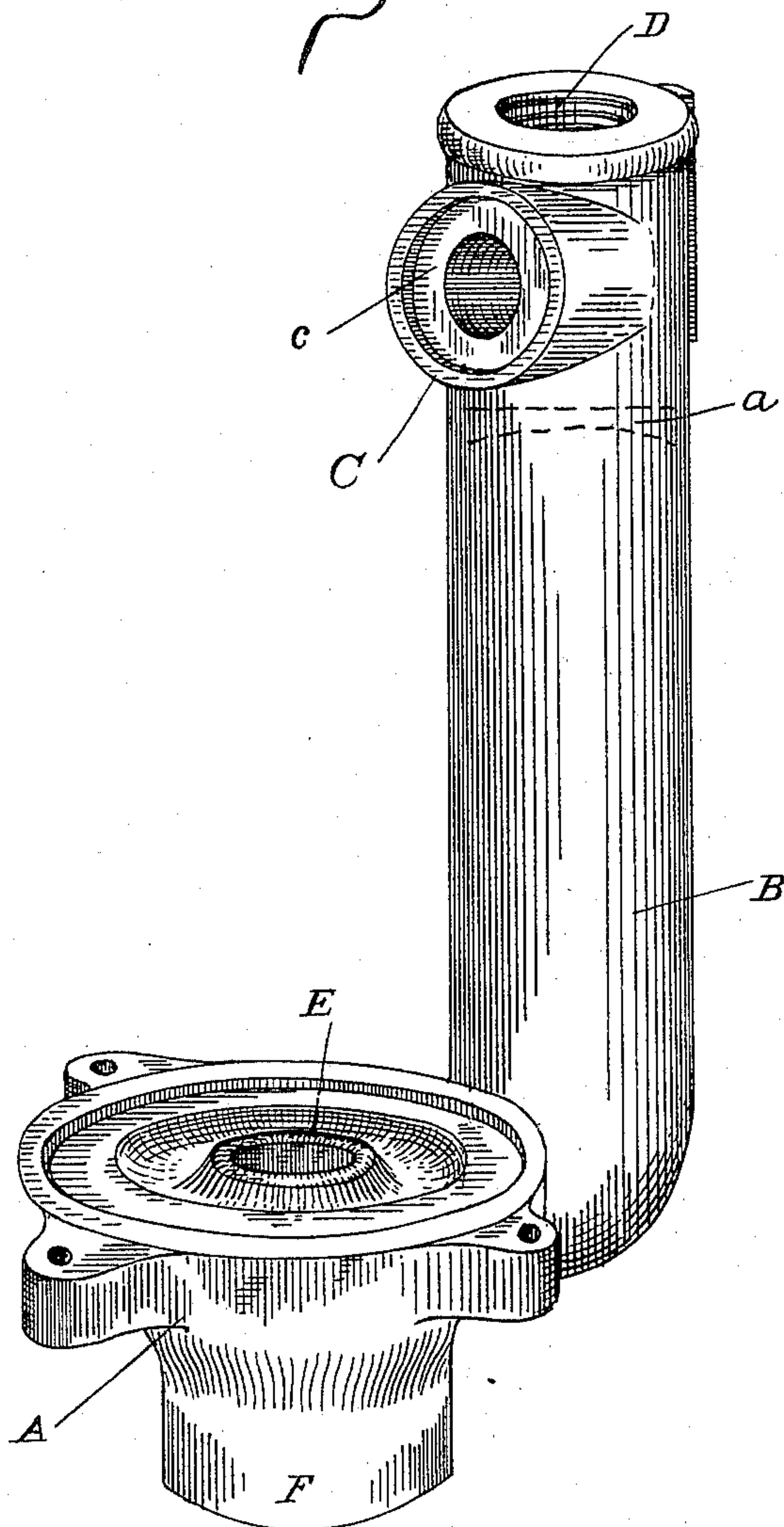
W. EAMES.

PUMP.

No. 302,715.

Patented July 29, 1884.

Fig 2,



WITNESSES

Chas. Frost
C. H. Sheen.

INVENTOR

Wilfred Eames

H. F. Eames Attorney

UNITED STATES PATENT OFFICE.

WILFRED EAMES, OF EVANSVILLE, INDIANA, ASSIGNOR TO THE EVANSVILLE PUMP AND PIPE COMPANY, OF SAME PLACE.

PUMP.

SPECIFICATION forming part of Letters Patent No. 302,715, dated July 29, 1884.

Application filed April 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILFRED EAMES, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Force-Pumps, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to the construction of force-pumps; and its object is to so simplify the same as to produce the pumps on sale at a minimum price, and at the same time furnish a durable and reliable pump; and to these ends the novelty consists in the construction of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

The subject-matter of the present case is especially designed as an improvement upon my pending application, No. 123,458, filed March 8, 1884.

Figure 1 is a sectional elevation of a pump embodying my improvement, and Fig. 2 is a detached perspective view of my improved pump-cylinder connection.

A is the base upon which the pump-cylinder rests. B is the vacuum-chamber; C, the cylinder-outlet connection, and D is the connection with the pump-standard proper. The cylinder-outlet connection C and the standard-connection D are separated from the vacuum-chamber B by a partition, *a*, cast integral therewith.

E is the valve-seat, and it and the face *c* of the cylinder-outlet connection C are chilled in casting by inserting in the sand-mold pol-

ished steel or iron disks corresponding to the parts. When the molten metal comes in contact with these polished disks, that portion of the surface of the casting is chilled and, as is well known, becomes intensely hard, and at the same time assumes a smooth and finished appearance, which dispenses with all subsequent lathe-work or other finishing, and admits of a perfect joint being made. It will thus be seen that a great saving is effected, as the casting comes from the mold perfectly finished, to all practical intents and purposes. In fact, nothing further is required except to tap out the suction-pipe connection F and the pump-standard connection D. The most important feature attained in chilling the face of the valve-seat E is the protection from wear and tear occasioned by the passage of grit, sand, and gravel through the pump; and it also greatly retards the oxidization of the valve-seat, and consequently prevents injury by such action on the leather valve.

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

In a pump, the cylinder-base A, vacuum-chamber B, and cylinder-outlet connection C, cast in a single piece, and having the valve-seat face E and cylinder-outlet connection C chilled in the process of casting, as and for the purpose set forth.

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

WILFRED EAMES.

Witnesses:

H. J. ENNIS,
C. H. SHEEN.