(No Model.) 2 Sheets—Sheet 1.

B. A. STEVENS.

BASE FRAME FOR ENGINES.

No. 410,811. Patented Sept. 10, 1889.

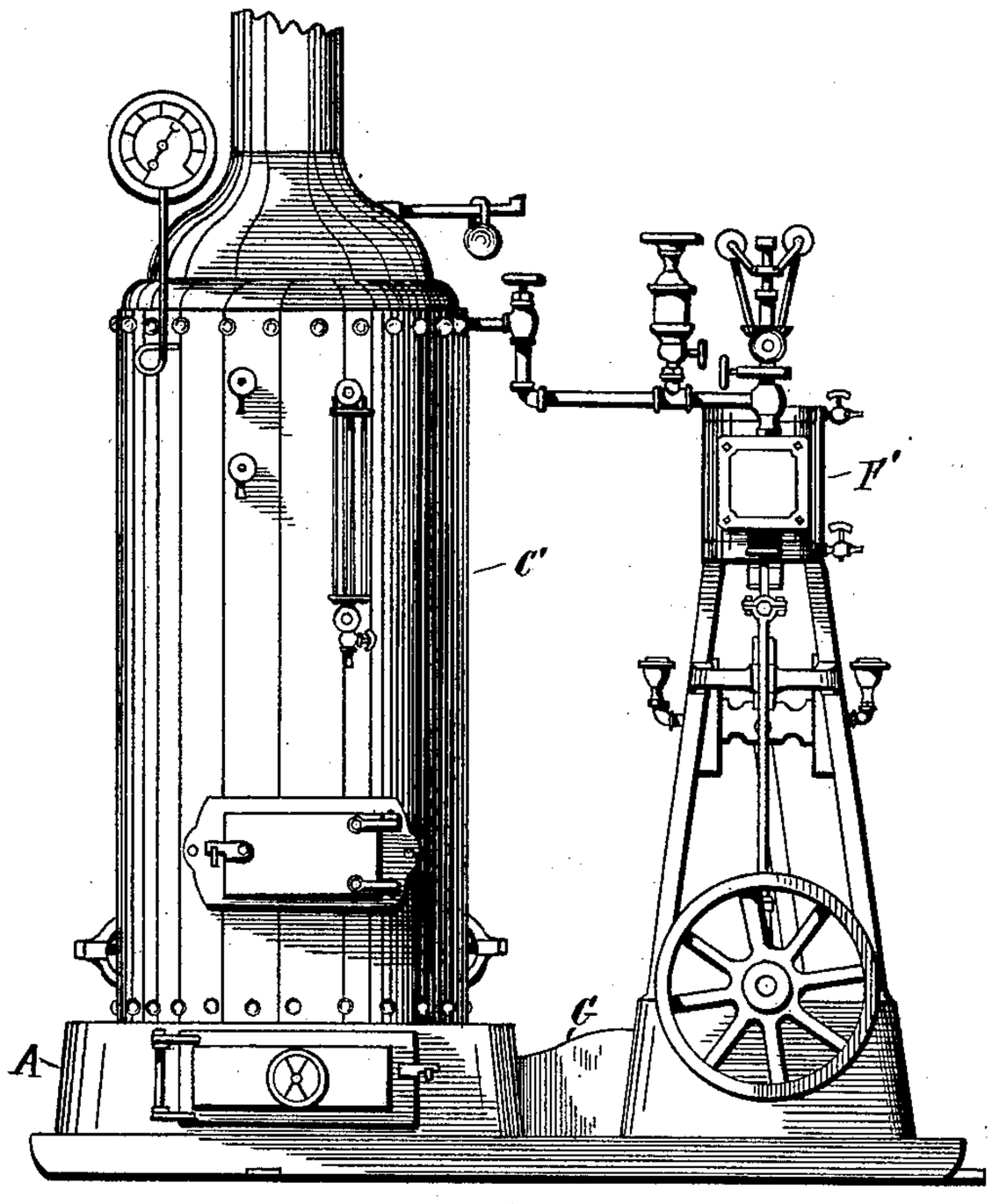

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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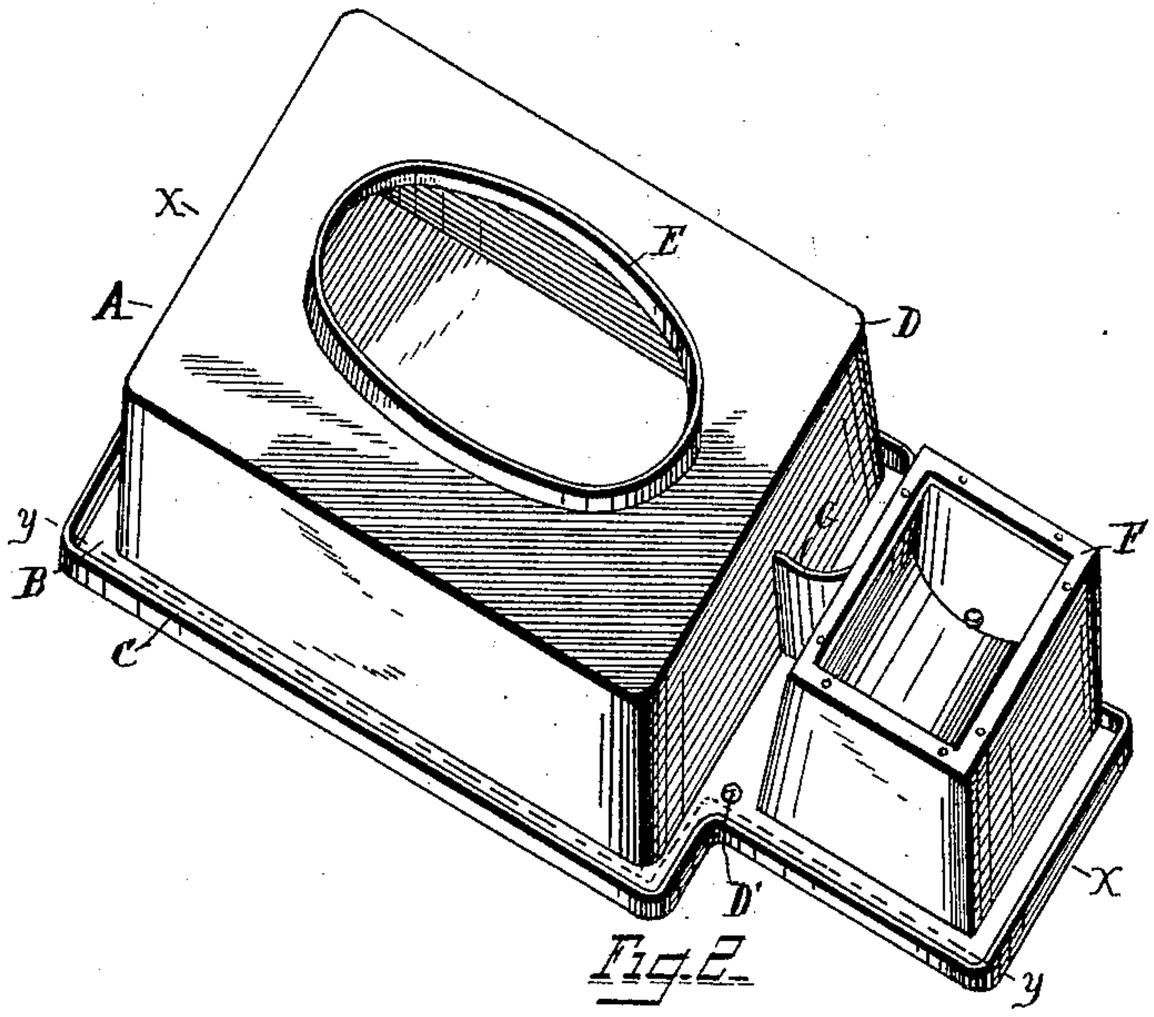

Fig. 2.

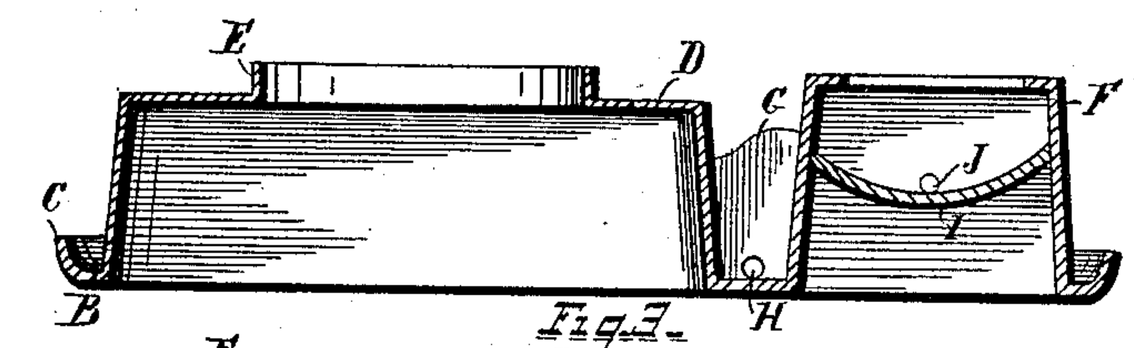

Fig. 3.

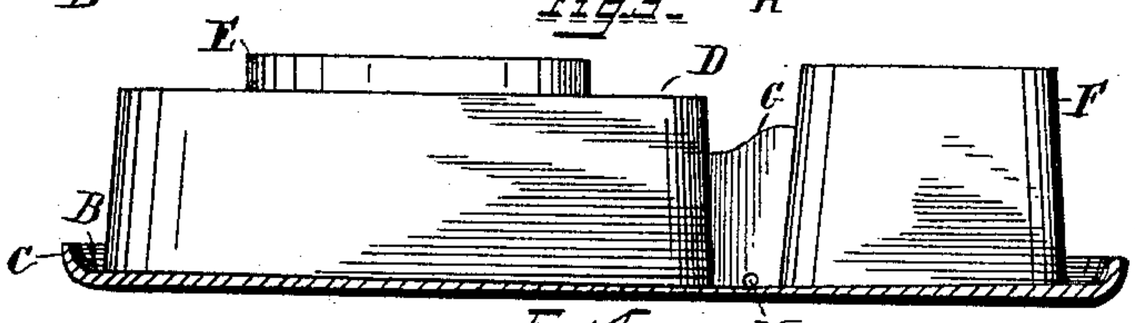

Fig. 4.

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UNITED STATES PATENT OFFICE.

BENJAMIN ABBOTT STEVENS, OF TOLEDO, OHIO.

BASE-FRAME FOR ENGINES.

SPECIFICATION forming part of Letters Patent No. 410,811, dated September 10, 1889.

Application filed January 16, 1889. Serial No. 296,560. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN ABBOTT STEVENS, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Base-Frames for Engines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to base-frames for steam-engines, more especially of that class of portable engines usually employed in warehouses, factories, &c., for light work, and has especial reference to means for catching the drippings of oil or water that may condense and leading the same to any desired point of discharge.

The object of the invention is to construct a base-frame with provision for catching any oil or condensation that would either flow to the ash-pan beneath the boiler or to the floor beneath the cylinder, and that large proportion that usually flows down the sides upon the floor.

The invention consists in the parts and the combination of parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of an upright portable engine having a base-frame constructed in accordance with my invention. Fig. 2 is an isometric view of the base-frame. Fig. 3 is a longitudinal vertical section on lines *x x*, Fig. 2. Fig. 4 is a side elevation of the base-frame with the drip-trough removed, this view being taken on lines *y y*, Fig. 2.

In constructing my improved base-frame there is formed a hollow rectangular raised portion, upon which is secured the boiler, and a like raised portion of smaller area, upon which is secured the engine, the whole being formed integral with a bottom portion surrounding and connecting the same, and having upturned or flanged edges to catch oil and water that may be led thereto, as will be more fully described.

A designates the complete base-frame, formed with a bottom portion B, extending around the entire surface thereof, said bottom portion being turned up or flanged at the outer edges at C, and at one end of the bottom portion B is formed a raised rectangular rest D, adapted to support the boiler C′, said rest being cast hollow and of a sufficient height to receive an ash-pan within the same. In the upper face of this rest is made an opening over which the grate of the boiler rests, and surrounding said opening is an annular flange E, formed integral with the upper face of the rest, said flange serving to prevent the water or oil from running into the ash-pan. Upon the opposite end of the base is formed an upwardly-extended rectangular rest F for the engine F′, having provision for bolting the same solidly thereto.

The boiler and engine may be of any preferred construction; or there may be secured to the base-frame a steam-pump, my invention having especial reference to the base-rest.

The bottom portion B is formed of a greater thickness at each end than at the center, and inclines toward the center from either end, as shown in Fig. 4, and has perforations D′ tapped through the same at the base thereof near each outer side, by which to allow the drippings to be led off to any desired place of discharge, one perforation D′ being shown in Fig. 2, the like perforation upon the opposite side being obscured by the base-rest F.

G designates a vertical web-plate formed integral with the two base-rests D and F, and serving to connect the two rigidly, the said plate being perforated at H to allow the oil and water to flow to either of the perforations D′ that may be open to conduct the same from the base, there being a plug provided to close one of the perforations when it is desired to draw the same from but one side of the base, or it may be allowed to flow from each side thereof.

I designates a plate or partition formed within the rest F for the engine, this plate being preferably curved inwardly to allow the drippings of oil and condensed water to flow to the center and be carried to the flange B through a perforation J in the rest F, formed contiguous to the lowest portion of the plate I.

The advantages of my improved base are

as follows: The rest for the boiler and engine, as well as the vertical web-plate and the flanged bottom portion, can be cast in one piece, thereby insuring rigidity as well as cheapness.

A further advantage is, that by reason of the annular flange E being cast integral with the boiler-rest no dripping can flow to the ash-pan, as is usual in other constructions.

A further advantage is, that by reason of the curved plate or partition I the usual drippings of water of condensation from the cylinder, as well as the oil from lubrication, are caught and caused to flow into the channel caused by flange B and angle-iron C.

By the use of my improved base-frame the expense and inconvenience of a supplemental pan beneath the engine and boiler are obviated, and the engine when shipped from the factory is in condition to be placed in position without further arrangement for avoiding the drip of oil and water.

It will be seen that by reason of the bed being inclined from either end, and from the center to either side, the drippings will find ready exit through the perforations D.

What I claim is—

1. The combination, with an engine-rest supported upon a suitable bottom portion, of a curved plate formed within the engine-rest and adapted to conduct the oil to an opening formed in the side of the same, substantially as and for the purpose specified.

2. A base-frame for engines, formed of a bottom portion having a flange upon its outer edges and the upper surface sloping toward the center of the same, a hollow rectangular boiler-rest having an opening in its upper face surrounded by an annular flange to which the boiler is attached, an engine-rest formed upon the opposite end of the same, and a vertical web-plate connecting the rests and the bottom portion, all of said parts being cast integral, substantially as shown and described.

3. A base-frame for engines, comprising a bottom portion, an elevated rest having an annular flange to which the boiler is secured, and an elevated rest to which the engine is secured, the two rests being connected by a vertical web-plate G, perforated at the base for the escape of condensation and oil, the bottom portion, rests, and web-plate all formed integral, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

BENJAMIN ABBOTT STEVENS.

Witnesses:
WILLIAM WEBSTER,
U. ENGELMAN.