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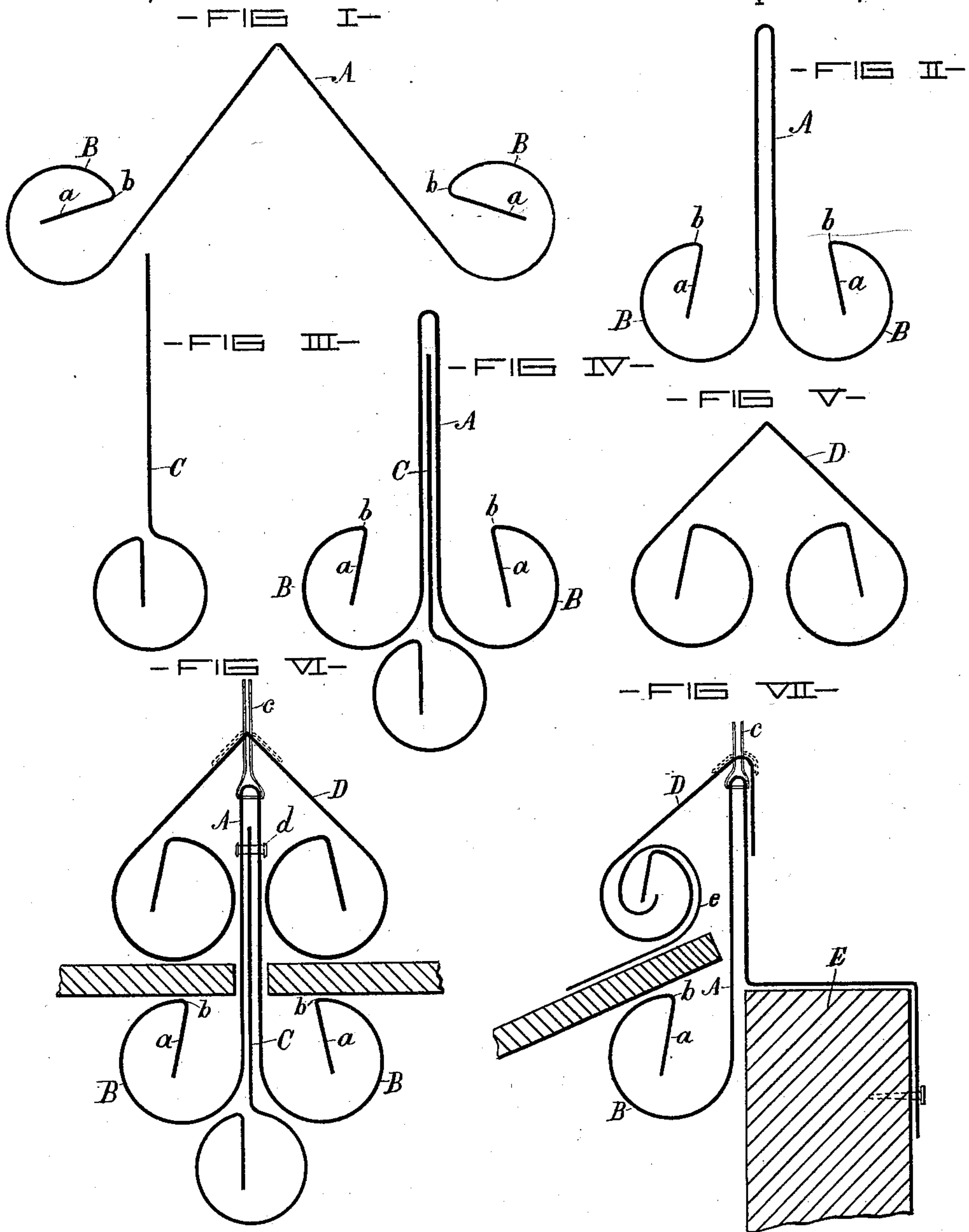
3 Sheets—Sheet 1.

C. A. VAILE.

SKYLIGHT.

No. 297,038.

Patented Apr. 15, 1884.



-WITNESSES-

Paul Fisher
Edward J. Diggs

-INVENTOR-

Charles A. Vaile,
by G. H. Howard,
Atty.

(No Model.)

3 Sheets—Sheet 2.

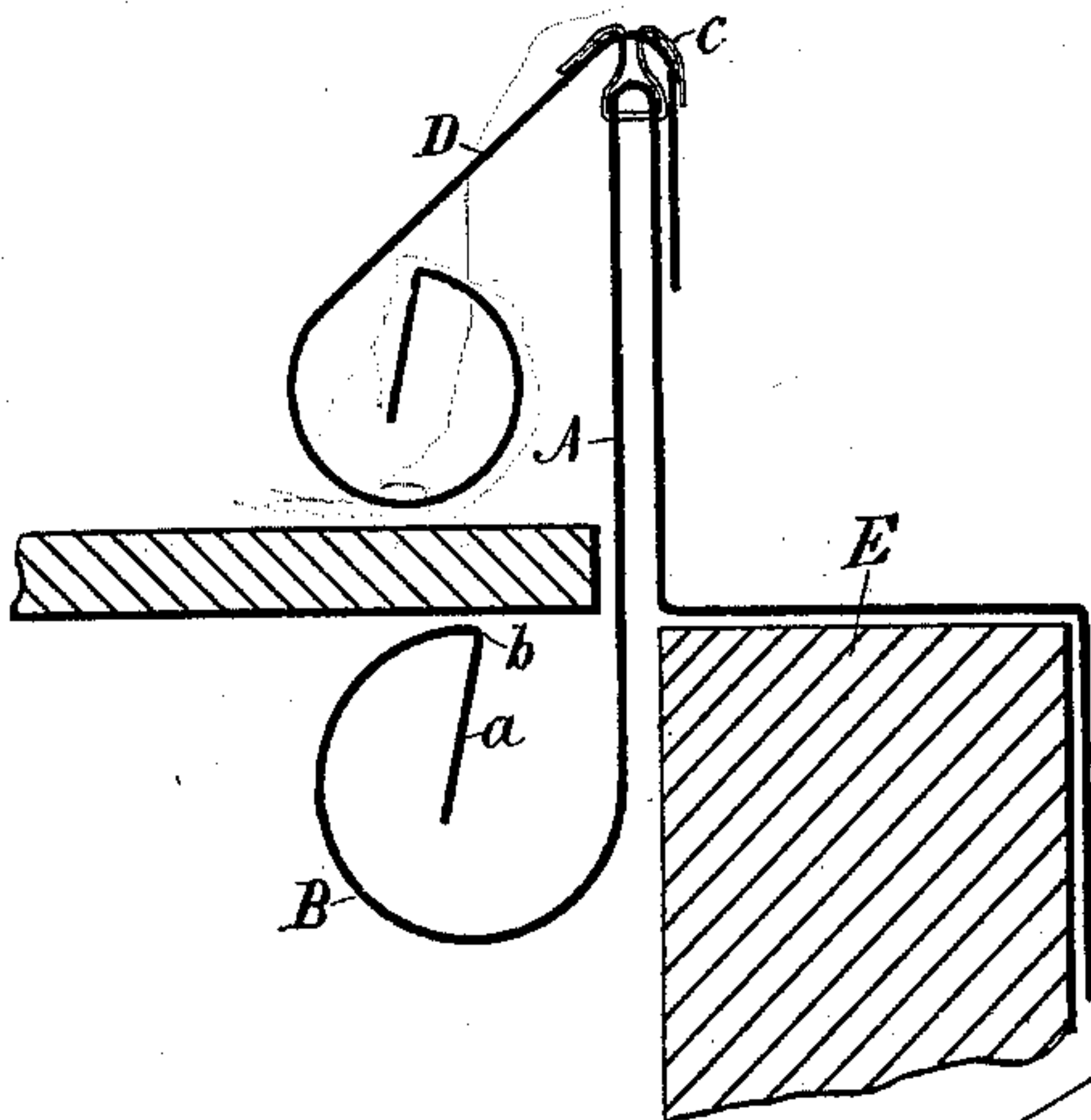
C. A. VAILE.

SKYLIGHT.

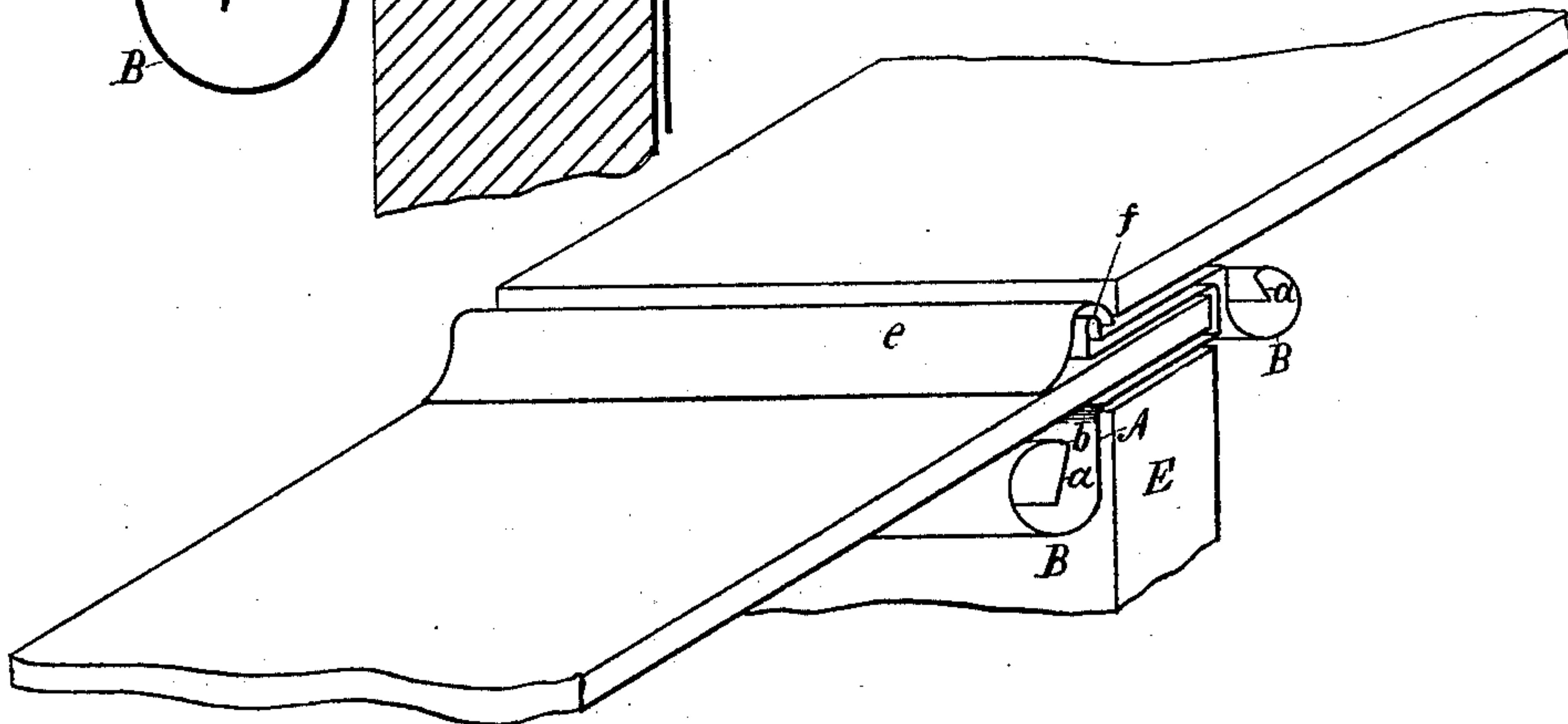
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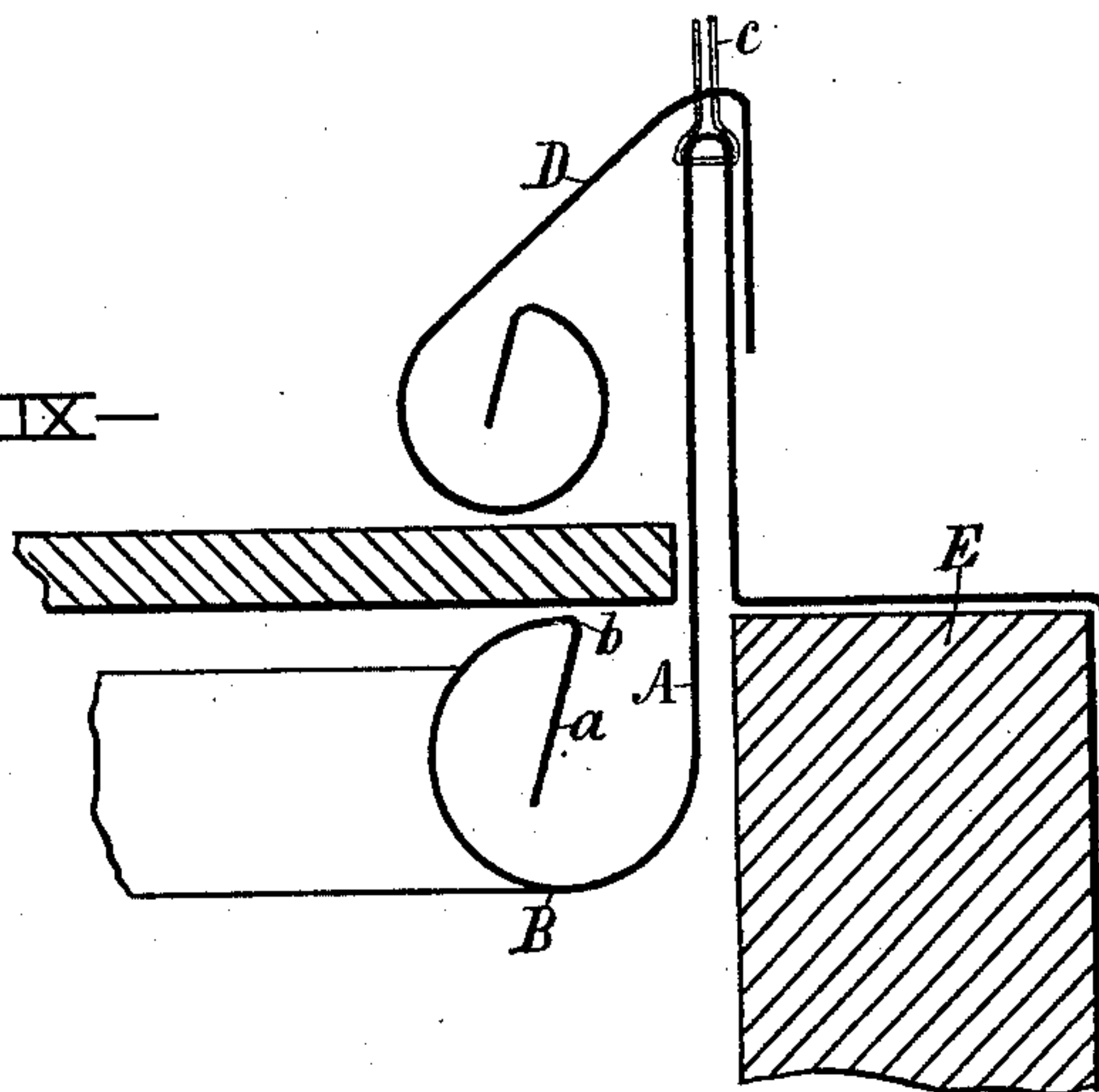
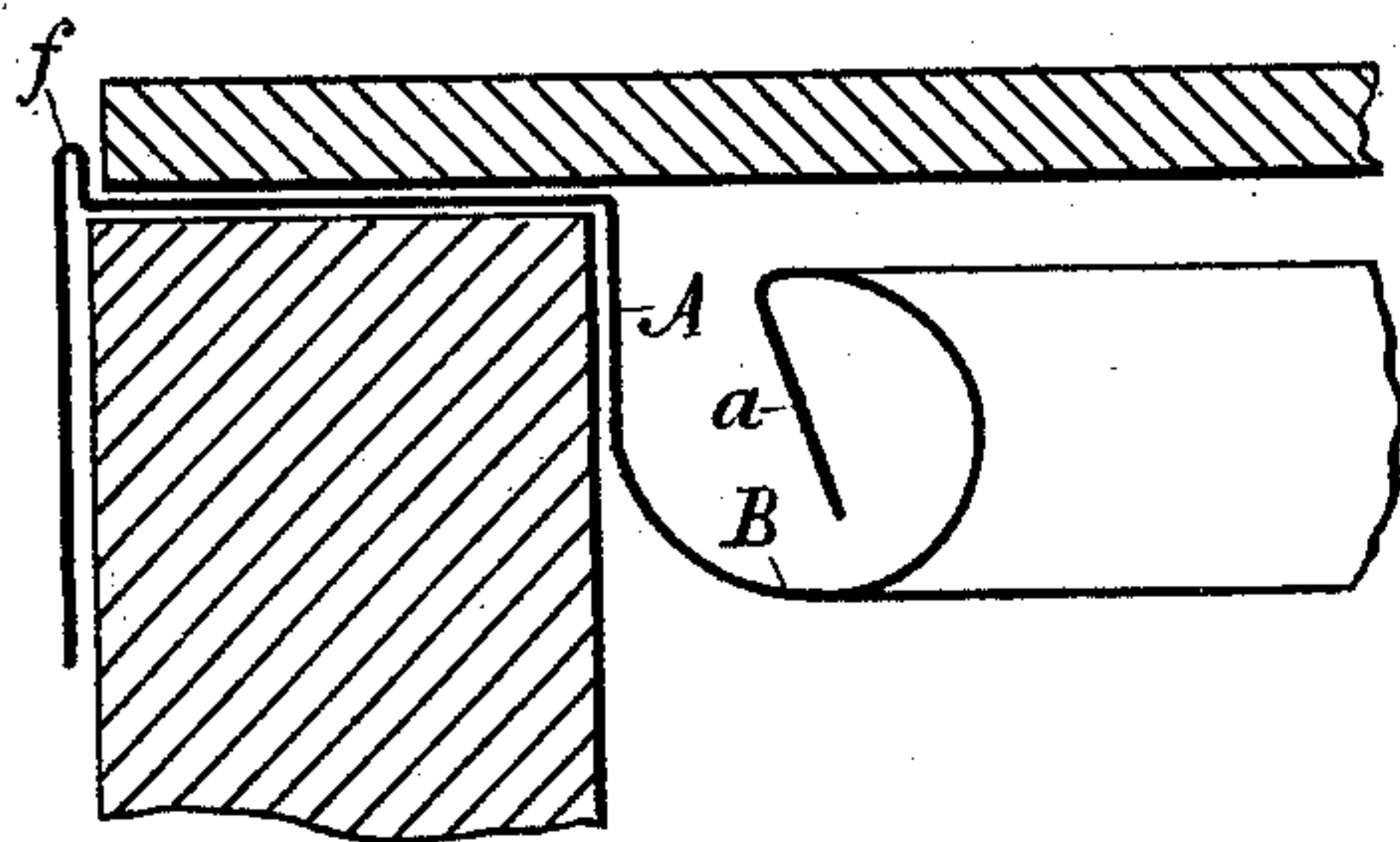
— FIG VIII —



— FIG XI —



— FIG IX —



— WITNESSES —

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3 Sheets—Sheet 3.

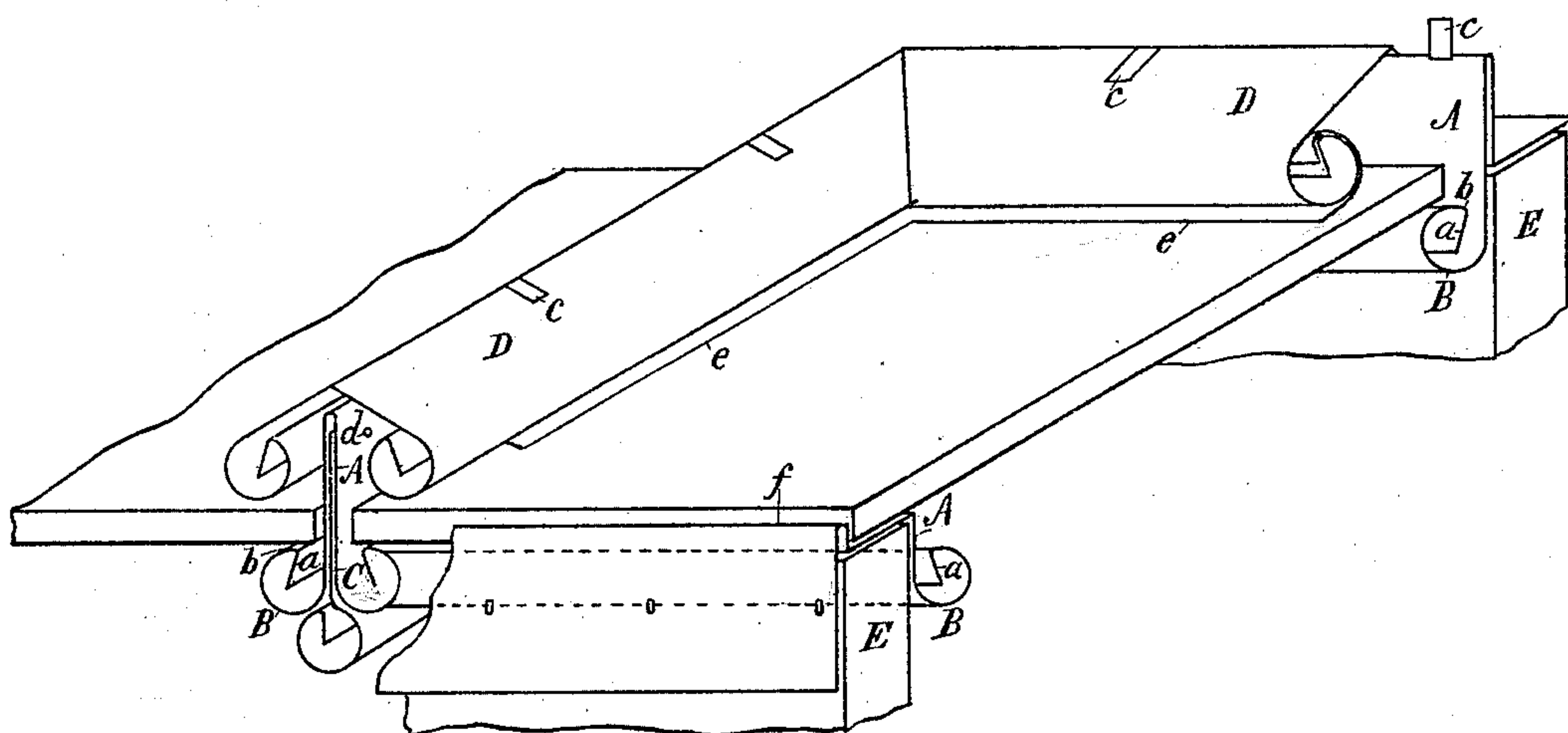
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— FIG X —



— WITNESSES —

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UNITED STATES PATENT OFFICE.

CHARLES A. VAILE, OF BALTIMORE, MARYLAND.

SKYLIGHT.

SPECIFICATION forming part of Letters Patent No. 297,038, dated April 15, 1884.

Application filed June 20, 1883. Renewed March 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. VAILE, of the city of Baltimore and State of Maryland, have made certain Improvements in Skylights, of which the following is a specification.

This invention relates specifically to the construction of the bars of the skylight, or parts thereof adapted to sustain and secure the glass plates and carry off the water of leakage and condensation; and it consists, principally, in making the bars in the form of an open tube, and providing them with internally-projecting stiffening-strips, which, in addition to their office of giving rigidity to the tubes, serve to conduct water to the interior of the same or the gutters.

It further consists in certain details of construction of other parts, as will hereinafter fully appear.

In the accompanying drawings, forming a part hereof, I have not shown a complete skylight, but only parts thereof; and the various figures will be described hereinafter in detail.

Similar letters of reference indicate similar parts in all the views.

In the construction of my improved skylight-bar I first bend a sheet of metal of requisite length (represented by A) in the form indicated in Figure I, and there is thereby produced two open tubular bars, B, having the stiffening projections *a*. I next fold the sheet A as shown in Fig. II, when the covers *b* are in a position to receive or sustain the glass plates. Should this folded bar not prove rigid enough to sustain, without alteration in shape, the glass plates resting on the bearings *b*, a stiffening-bar, C, (shown in Fig. III,) is inserted between the main parts of the sheet A, as shown in Fig. IV.

Fig. V is a cross-section of a cap, (denoted by D,) which is placed over the bar when completed, and secured thereto by means of the strips *e*, as shown in Fig. VI. By referring to this figure it will be seen that the stiffening and main bars are fastened together by means of a rivet, *d*, and the dotted delineation of the strips shows how they pass through the top of the cap and are soldered thereto. By ref-

erence to the drawings it will be understood that the collection of leakage from any point or source is provided for. Supposing water to pass under the cap D, Fig. VI, and thence to the under side of the said plate, it is conducted to the gutters in the tubular bars by means of the inwardly-projecting stiffening-strips *a*.

Fig. VII shows the upper bar of an inclined skylight, and the sheet A has only one tubular bar, and is secured to the wood frame denoted by E. In some cases it may be found desirable to unite a strip, *e*, of thin sheet-lead to the cap D, as shown in Fig. VII, to provide for any inequalities in the upper surface of the glass plate.

Fig. VIII shows the lateral bar of the skylight shown in Fig. VII.

In Fig. IX the top and bottom bearings and the glass plate of an inclined skylight are shown, and for convenience they are illustrated in a horizontal plane. In this figure the sheet is turned up and then folded at *f*, so as to form a projection to prevent the sliding of the glass plate. The upper bearing corresponds with that shown in Fig. VIII. The tubular bar of the lower part of the skylight, Fig. IX, does not sustain the glass plate, but it receives water of condensation the same as the other bars before described.

Fig. X illustrates a part of the upper, central, and lower bars, and also the lateral connection between the central and lower bars, and its details of construction are the same as the parts before described.

Fig. XI represents a cross-bar, over which two plates of glass are lapped. In this arrangement any water that might pass around the lower edge of the upper glass plate is conducted to the bar under the upper glass. In this figure the lead strip *e*, before referred to, is also shown.

I do not claim, broadly, in a skylight, a supporting-bar for the glass plates of open tubular form, as such construction is not new; but

I claim as my invention—

1. A skylight-bar of open tubular form, with an inwardly-projecting stiffening and

water-conducting strip, substantially as specified.

2. In combination with the open tubular portion of a skylight-bar, the sheet-lead strip
5 e, combined with and arranged with reference to the said bar, substantially as and for the purpose specified.

3. In combination with the sheet A, bent so

as to give two open tubular bearings for the glass plates, the stiffening-bar C, substantially 10 as specified.

CHARLES A. VAILE.

Witnesses:

WM. T. HOWARD,
EDWARD J. DIGGS.