

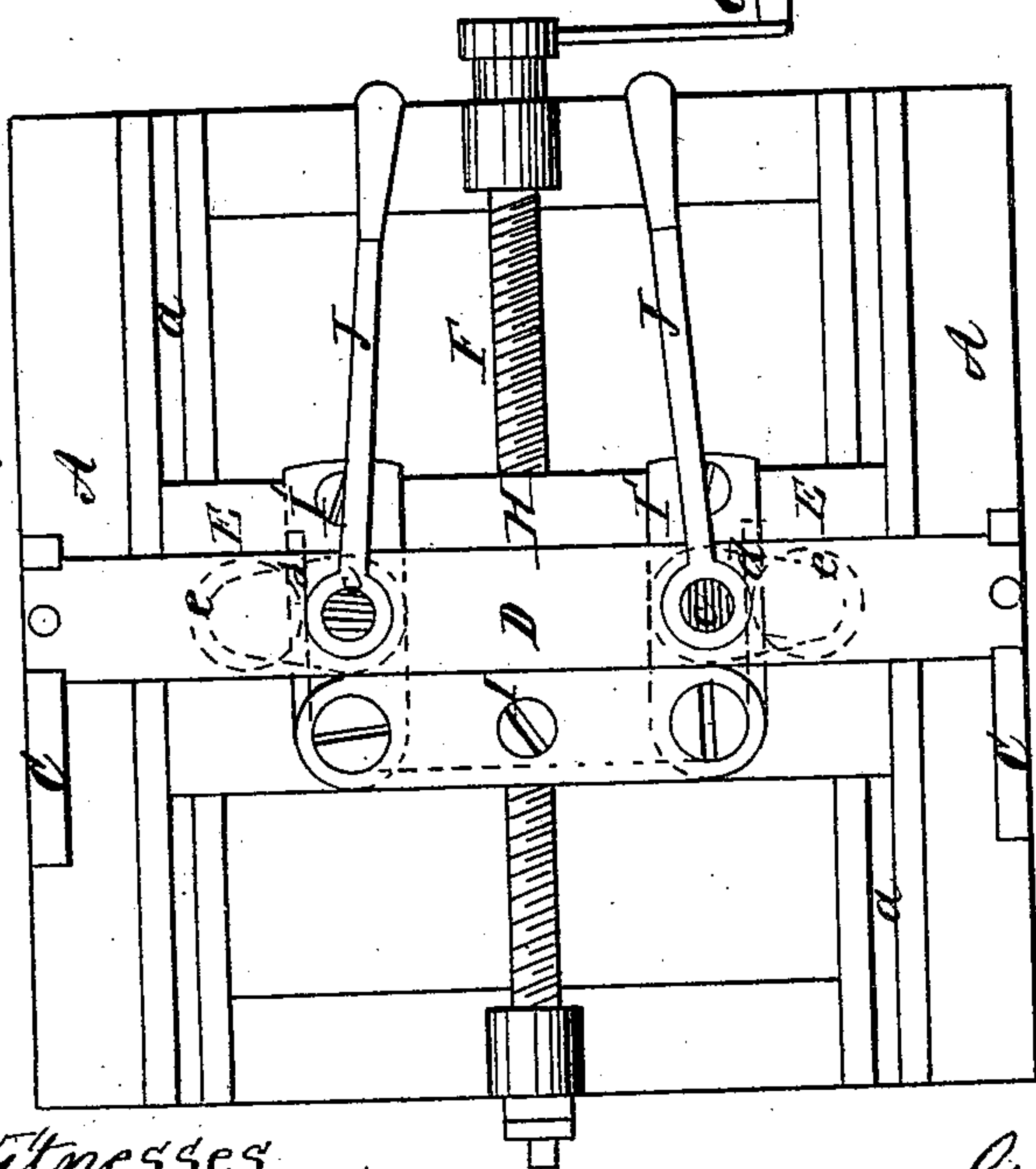
G. Havel.

Bending Bay Frames.

Nº 96,695.

Patented Nov. 9, 1869.

Fig. 1.



Witnesses:
A. Yeatman
Leopold Overb

Fig. 3.

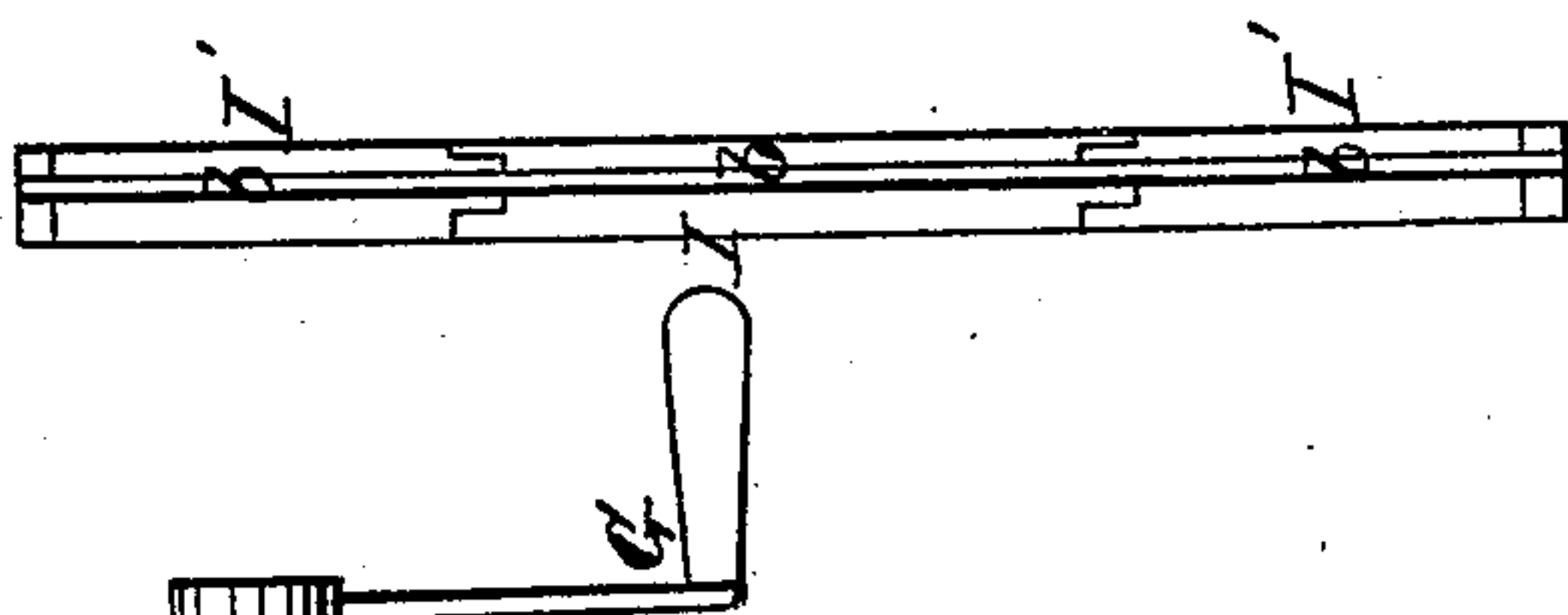


Fig. 4.

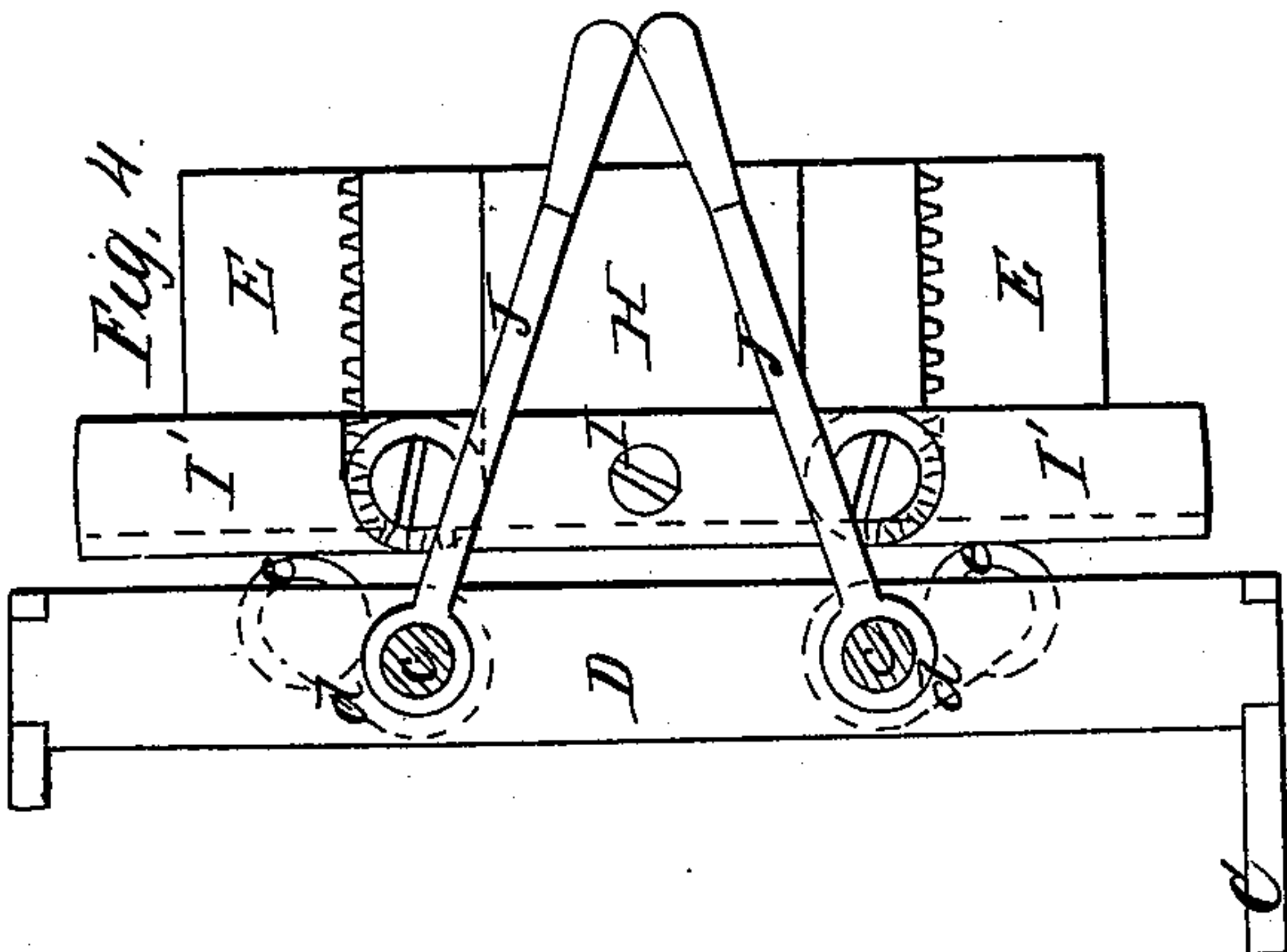


Fig. 5.

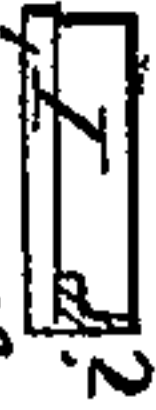
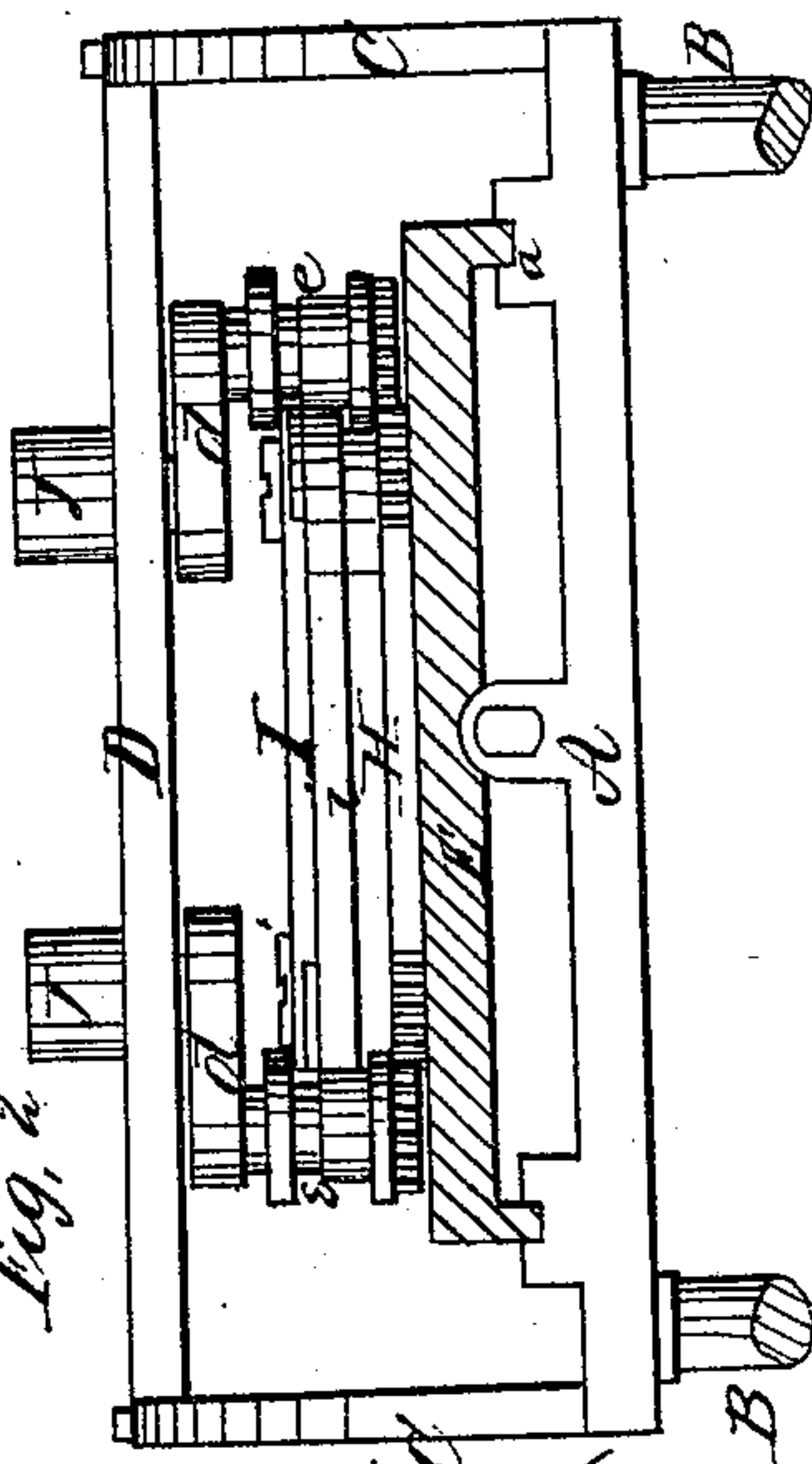


Fig. 2.



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GEORGE HAVELL, OF NEWARK, NEW JERSEY.

Letters Patent No. 96,695, dated November 9, 1869; antedated November 1, 1869.

IMPROVEMENT IN MACHINES FOR BENDING BAG-FRAMES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE HAVELL, of Newark, in the county of Essex, and in the State of New Jersey, have invented certain new and useful Improvements in Machine for Bending Bag-Frames; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a "machine for bending bag-frames," which will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of the machine, showing it in its position after the bag-frame has been bent;

Figure 2 is a front elevation in the same position;

Figure 3 is a front view of the "former;"

Figure 4 is a plan view of the "former" on its carriage, in position before the bag-frame is bent; and

Figure 5 is an end view of the "former."

A represents the frame or bed of the machine, resting on legs, B B, or other suitable supports.

On each side of the bed A is a standard, C, of suitable height, and these standards are connected by a cross-bar, D.

Along the sides of the frame A, inside of the standards C C, are grooves, *a a*, in which the carriage E moves.

Said carriage being moved backward or forward by means of a screw, F, which passes through a female screw on the under side of the carriage, has its bearings in the ends of the frame A, and is turned in either direction by a crank, G, or other suitable means.

On top of the carriage E, and across its centre, is placed the bed H, for the "former" I, the "former" being secured to said bed at its front side.

The "former" I is provided with wings, I' I', pivoted, one to each end of the main portion of the "former."

The whole "former," thus constructed, is provided with a groove, *b*, along its entire length, in which groove one side of the bag-frame is inserted, the wings I' I' being on a line with the main body I.

The bed H is of such size that when the wings are turned backward, they shall rest on or against the same, at right angles with the centre portion I.

The ends of the centre portion I, and the inner ends of the wings I' I', are so constructed, that when the said wings are so bent backward, the corners shall be rounded, so as to form the bag-frame in the proper shape.

The sides of the bed H, just above the carriage E, are provided with cogs, which continue around the corner, and a suitable distance inward on the front side.

Through the cross-bar D are passed two journals, *c c*, which are provided, on the upper side of the cross-bar, with levers or handles, J J, and under said cross-bar with arms, *d d*.

These arms are, at their outer ends, provided each with a flanged roller, *e*, extending downward from said arms, and turning on a shaft or axle secured to the arm.

The arms *d d* are of such length, that when turned parallel with the centre portion I, of the "former," the rollers *e e* shall be immediately at the rounded ends of said centre portion, and the flanges on the rollers *e e* be one above and one below the wings I, or rather, the wings will fit in between said flanges.

Under the lower flanges the rollers *e e* are cogged, to correspond with the cogs on the bed H.

The metal from which the bag-frame is to be made, is first bent in the shape shown in fig. 5, (said metal is marked *i*;) one side is then inserted in the groove *b*, in the "former," the wings I' I' being extended, as shown in fig. 4.

The handles or levers J J are now placed together, bringing the rollers *e e* in the proper position, when the carriage E is started.

As soon as said carriage has moved far enough for the wings I' I' to strike the rollers *e e*, they are turned backward, bending the metal *i* with it to the proper shape, the cogs above mentioned causing the rollers to rotate, and shaping the frame properly.

The "former" I, with its wings, may be made of two plates fastened together, leaving a space along the front edge, for the insertion of the metal.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. A machine for bending bag-frames, so constructed that the metal forming the sides of the frame is held or passed between two plates or in a groove, while it is being bent, substantially as herein set forth.

2. The "former," constructed as described, of a centre, I, having wings I' I' pivoted or hinged to its outer ends, when the said "former" is grooved, or made of two plates, leaving a space along the front edge for the insertion of the metal forming the frame, substantially as herein set forth.

3. The combination of the carriage E, bed H, and "former" I' I', with a mechanism for causing the blank to bend, all constructed and arranged to operate substantially as herein set forth.

4. The cogged and flanged rollers *e e*, in combination with the cogged bed H, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 22d day of February, 1869.

GEORGE HAVELL.

Witnesses:

A. N. MARR,
JOHN N. KERR.