

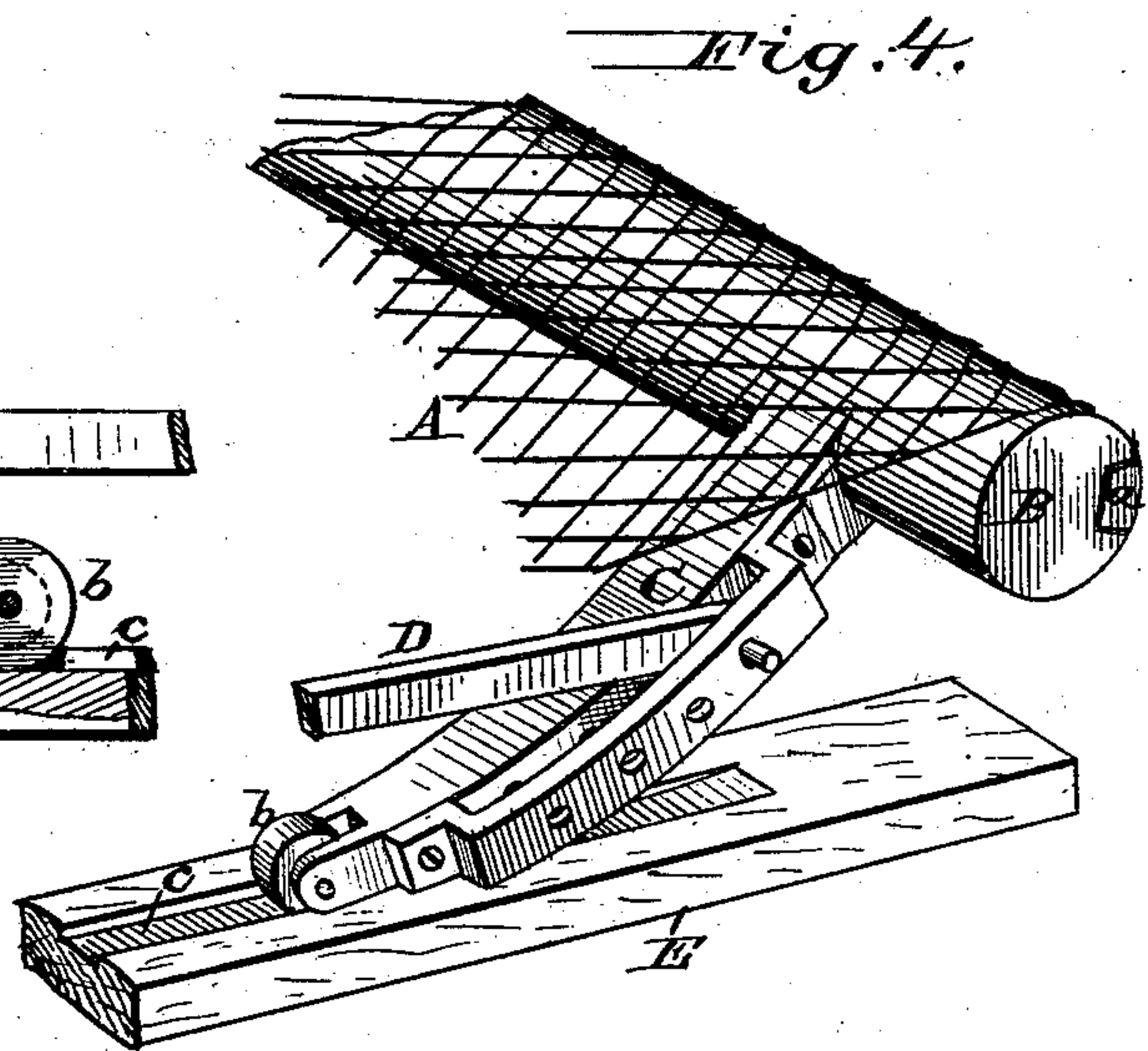
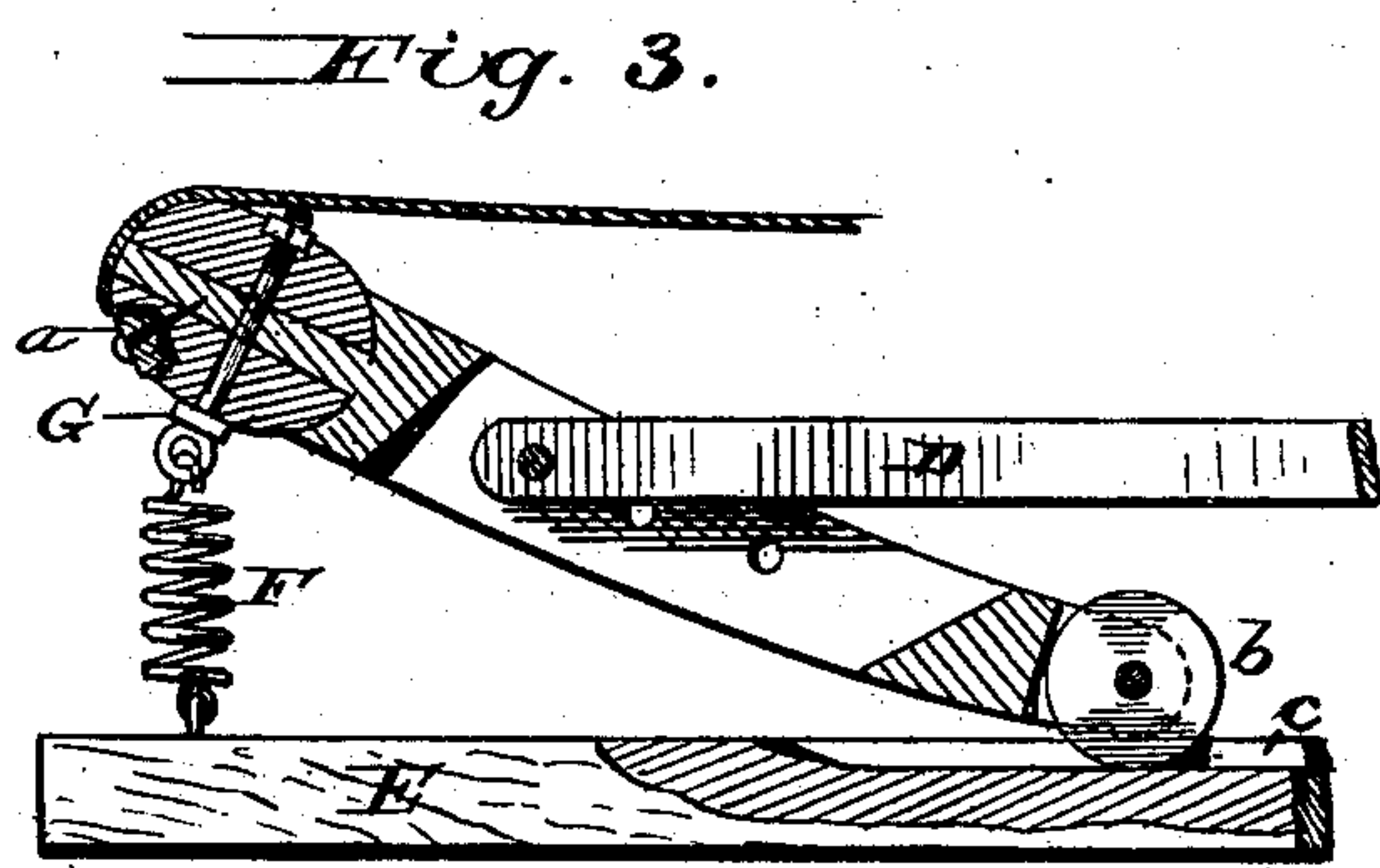
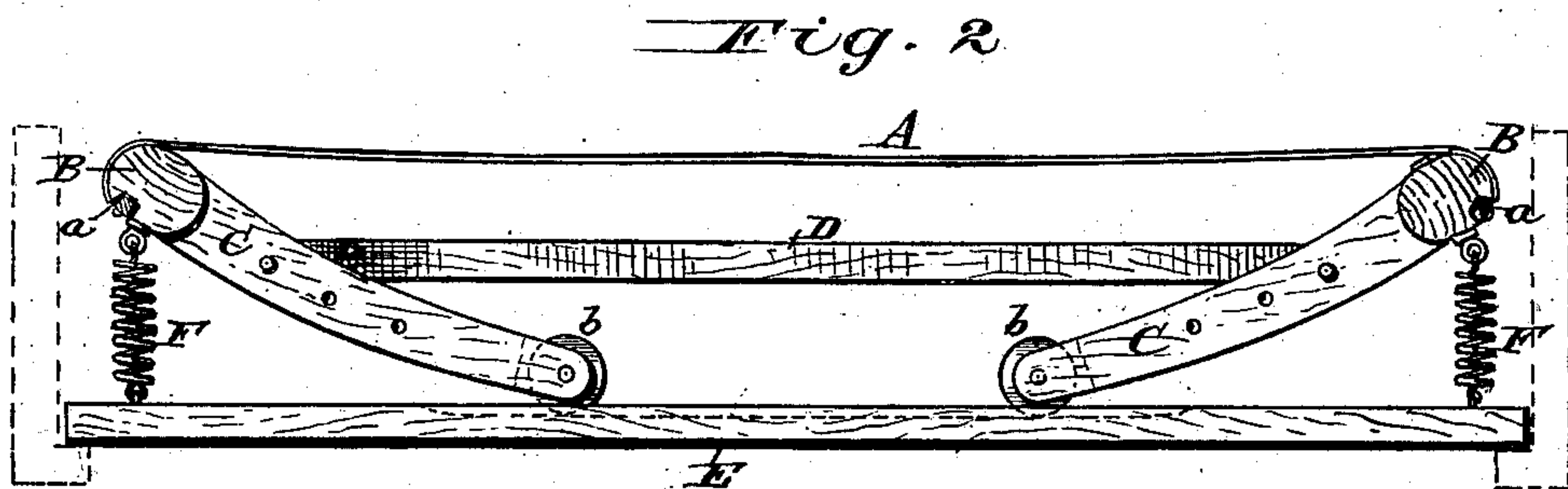
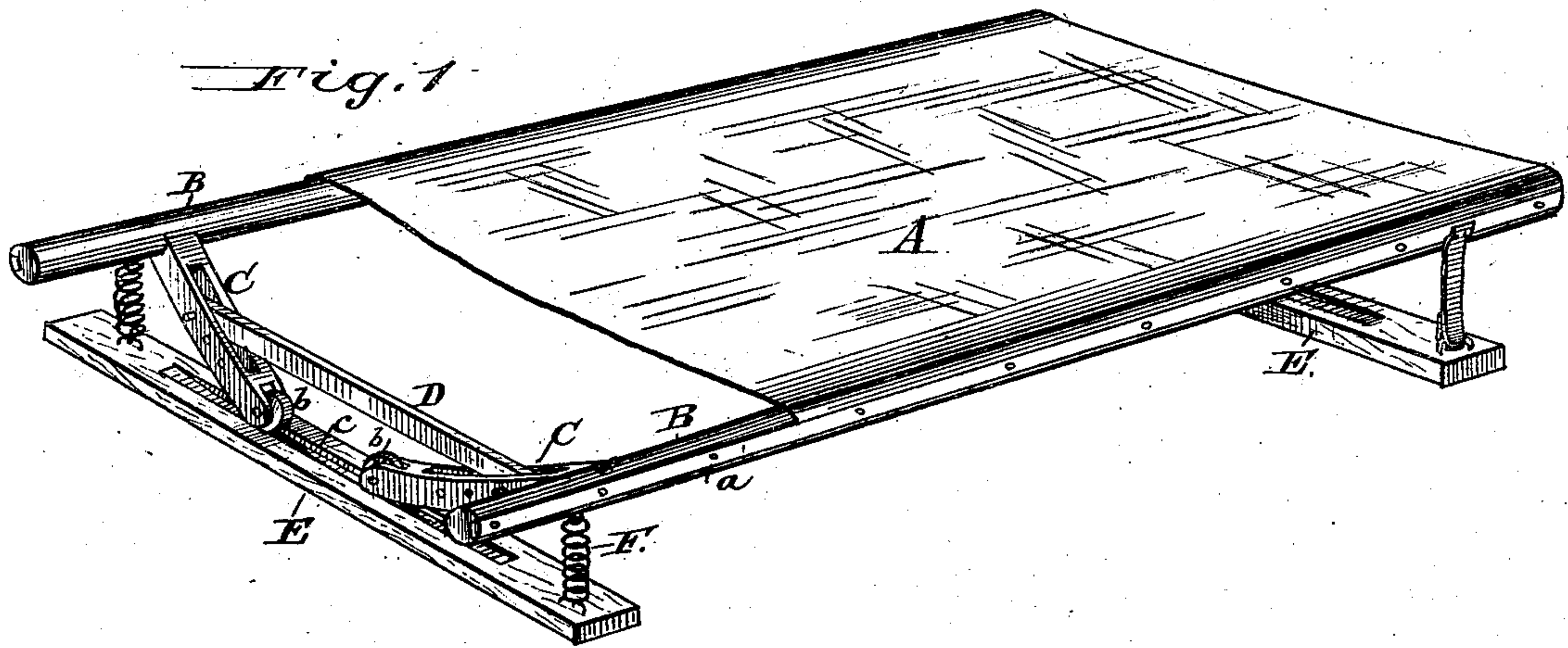
(No Model.)

E. B. HULL.

BED BOTTOM.

No. 256,694.

Patented Apr. 18, 1882.



Attest:  
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# UNITED STATES PATENT OFFICE.

ELIZABETH B. HULL, OF CLINTON, ILLINOIS.

## BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 256,694, dated April 18, 1882.

Application filed February 14, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ELIZABETH B. HULL, a citizen of the United States, residing at Clinton, in the county of De Witt and State of Illinois, have invented certain new and useful Improvements in Bed-Bottoms, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of this invention is to secure in a bed-bottom sufficient strength and elasticity, combined with simplicity, durability, and cheapness.

The invention relates to that class of bed-bottoms in which canvas, wire, or woven wire is stretched horizontally between rails to form the bed-bottom.

The invention consists, first, in supporting the side rails by means of arms or levers having slots therein in the form of rockers connected together in pairs by means of hinged bars in such a manner that the tension of the canvas or wire will be automatically regulated by the weight of the person reclining upon the bed. As thus constructed the bed-bottom is complete in itself, and may be readily placed upon and removed from any bedstead, no special connection or fastening being necessary.

The invention consists, further, in providing the arms with wheels, whereby their movement is facilitated and creaking prevented; also, in providing the slats supporting the arms with grooves, whereby the arms will be retained in position; also, in other features hereinafter described and distinctly claimed.

Figure 1 is a perspective view of this improved bed-bottom. Fig. 2 is a side view thereof. Fig. 3 is a transverse section through one end. Fig. 4 is a perspective view of one corner, showing a modification.

The same letters of reference are used in all the figures in the designation of identical parts.

A in the drawings represents the bed-bottom proper, consisting of canvas, wire, woven wire, or other equivalent material fastened to the rails B B. When canvas is used it may be fastened to the rails by means of cleats *a*, nailed to the rails and clamping the canvas. These strips are preferably sunk into grooves in the rails, in order to afford better purchase upon the cloth, and so that the rails may present an even surface.

C are the arms or rockers for supporting the

rails. They may be of iron or other material. The outer ends of these arms are forked and fastened to the rails, or provided with tenons which project into mortises in the rails. They are arranged in pairs, one pair at or near each end of the bed-bottom. Those of each pair project inward from opposite points in the side rails toward each other, and incline downward at an angle of twenty degrees, (more or less,) resting at their inner ends or toes upon supporting transverse slats E. The toes of the rockers are provided with wheels *b*, which run in grooves *c* in the slats, facilitating the play of the rockers and preventing any creaking sound.

Each pair of arms or rockers is connected by a bar, D, which is hinged to said arms a sufficient distance below the rails to allow the canvas or wire bottom to yield without coming in contact therewith. This bar converts the rockers into levers whose fulcrums are the pins used for connecting the said parts together. These levers, being brought into action by the weight of the person reclining upon the bed, tend to hold apart the rails to which the canvas is attached. The weight of the sleeper would ordinarily tend to draw the rails B B toward each other and cause the bed to sag; but through the leverage of the rockers, as before explained, this tendency is counteracted and the bed-bottom is rendered self-adjusting, adapting itself to the varying weights of the different persons who may rest upon it.

The arms C are provided with several pin-holes at different distances apart, through any of which the adjustable pin for connecting the bar D may be inserted. The connection may thus be changed from one hole to the other, in order to vary the width of the bed-bottom or secure greater or less leverage for the arms.

The ends of the bars D may project into slots formed in the main body of the arms; or brackets, as shown in Fig. 4, may be attached to one side of the arms to form slots to receive said bars.

Between the rails B and the slats E, outside the arms, are placed spiral springs or elastic or leather straps F, to hold the bed in place and prevent undue tilting thereof.

To avoid the splitting of the rails B by the strain of the arms eye-headed bolts G are passed through the same at the points where



the tenons of the arms are inserted in the bars. These bolts are passed through from the under sides of the bars and are provided with nuts on the upper sides thereof. The eyes in the heads of the bolts serve as a means of attachment for the springs or straps F.

As thus constructed the bed-bottom is complete in itself. It is supported upon the bedstead by the ends of the slats E resting on the ledges in the side rails of the bedstead, as shown in dotted lines in Fig. 2. It simply requires to be placed upon any ordinary bedstead, and is immediately ready for use.

What is claimed as the invention is—

1. The combination of the rails, the canvas or other suitable flexible material, the inclined arms projecting from the rails and supporting the same, the connecting cross-bar united to the arms by hinged joints, which form the fulcrums upon which the said arms turn, and the supporting-slats, substantially as described.

2. The combination of the rails, the canvas or other suitable flexible material, the inclined arms provided with wheels to facilitate their movement and prevent noise, the pivoted bars connecting the arms, and the supporting-slats, substantially as described.

3. The combination of the rails, the canvas or other suitable flexible material, the inclined arms provided with wheels, and the supporting-slats provided with grooves, in which said wheels run, substantially as described.

4. The combination of the rails, the canvas or other suitable flexible material, the inclined arms, the supporting-slats, the transverse bars, to which the arms are pivoted, and the springs or straps connecting the slats and rails to prevent undue rocking or tilting of the bed, substantially as described.

5. The combination of the rails, the canvas or other suitable flexible material, the connecting cross-bar, and the inclined arms provided with a series of holes adapted for the hinging of the connecting-bar at different points, substantially as and for the purpose set forth.

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

ELIZABETH B. HULL.

Witnesses:

W. B. BARNETT,  
T. B. WALDRON.