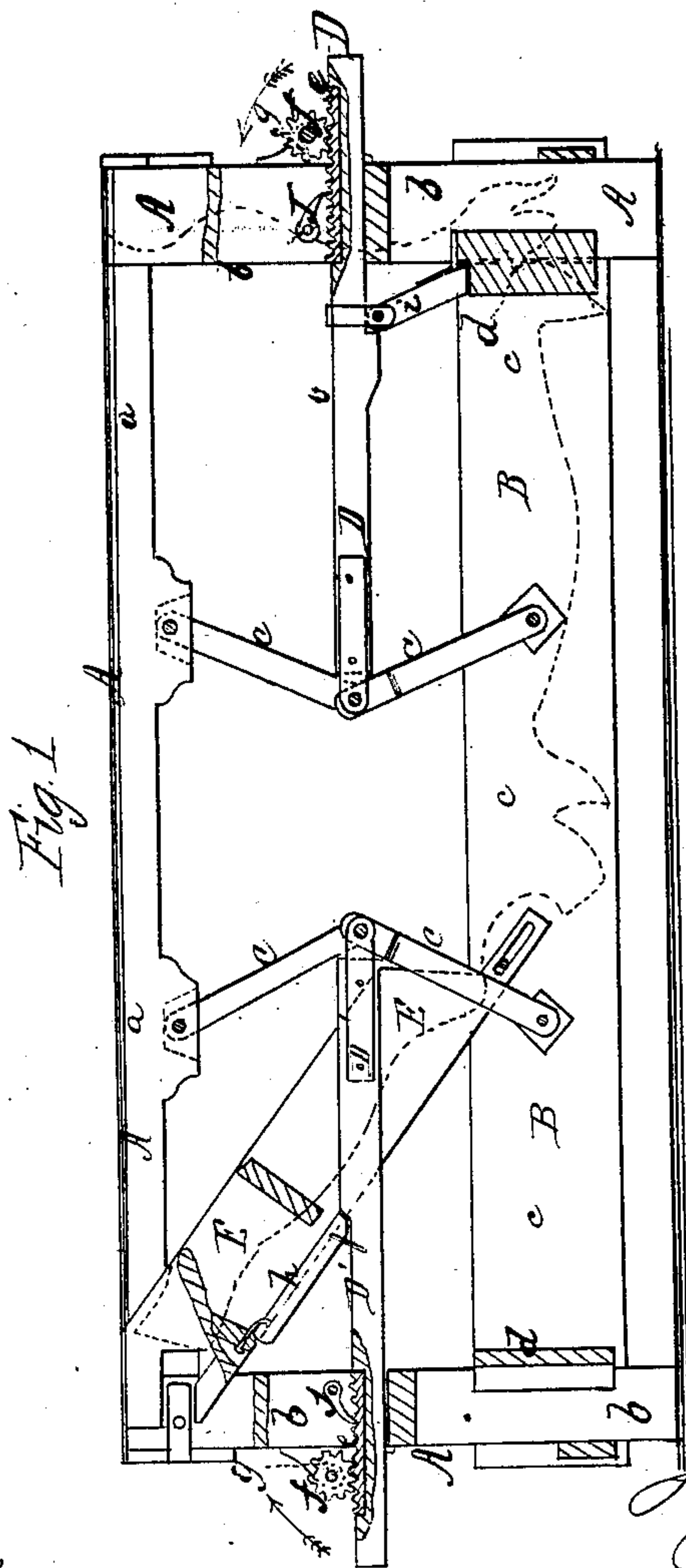
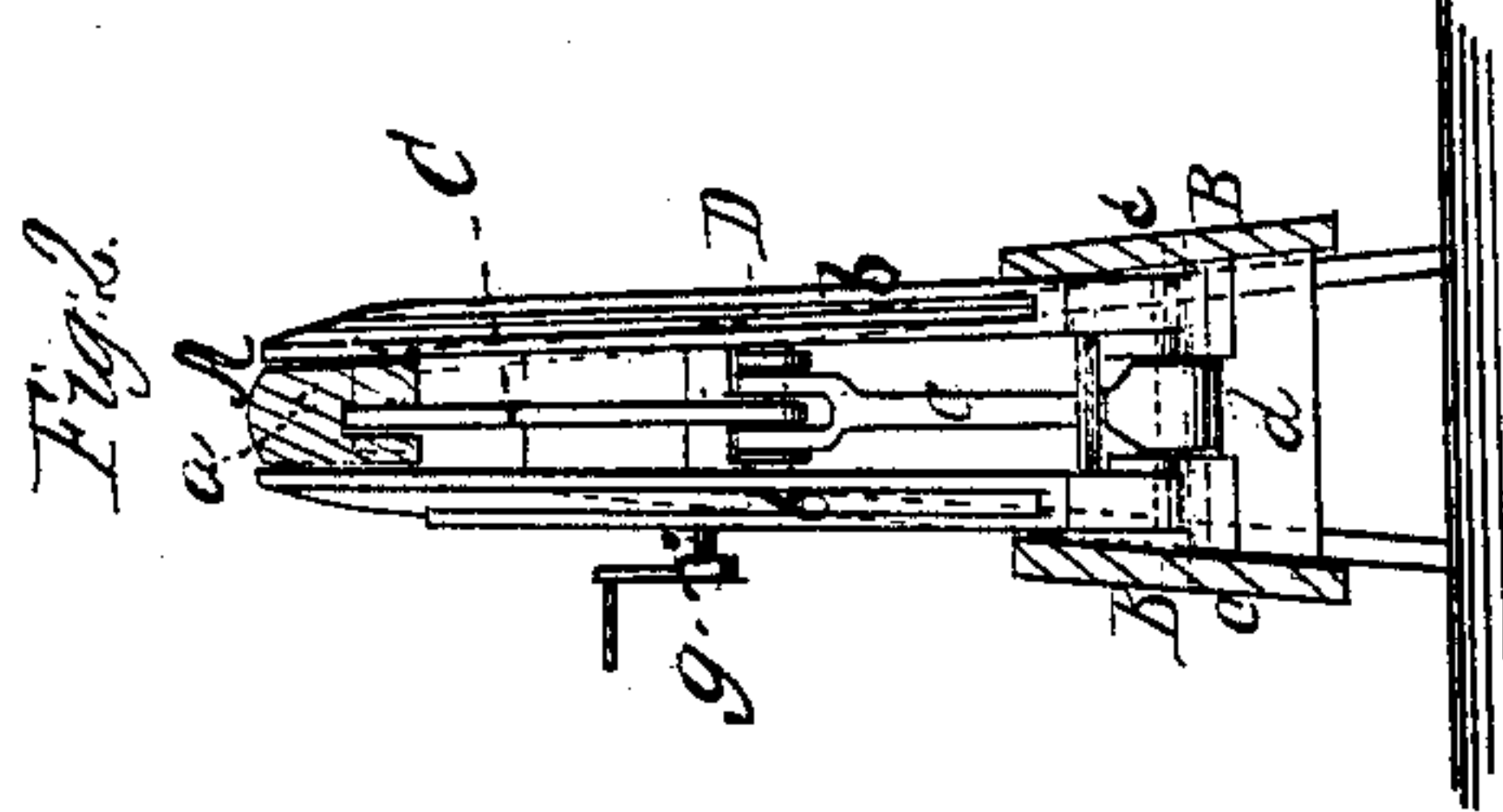


*J. F. Coburn,*

*Stretching Leather,*

*N<sup>o</sup> 69,630.*

*Patented Oct. 8, 1867.*



Witnesses:  
*Phos Trushey*  
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# UNITED STATES PATENT OFFICE.

JOHN F. COBURN, OF NEWARK, NEW JERSEY.

## IMPROVED HIDE-STRETCHING MACHINE.

Specification forming part of Letters Patent No. 69,630, dated October 8, 1867.

*To all whom it may concern:*

Be it known that I, JOHN F. COBURN, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Hide-Stretching Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a side elevation, partly in section, of my improved hide-stretching machine. Fig. 2 is a vertical cross-section of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for stretching hides of all kinds; and consists in so combining a sliding with a stationary frame, by means of toggle-levers, that by moving the said levers a hide tacked to both frames will be thoroughly stretched both in a horizontal and vertical direction.

A represents a stationary frame, made in the shape of an ordinary builder's horse or trestle, and consisting of an upper horizontal beam, *a*, and two supports, *b b*, and suitable braces, if desired.

B is a frame, arranged loosely around the supports *b*, so as to slide up and down on the same. The said frame B consists of two longitudinal boards, *c c*, connected by suitable braces *d d*.

C C are two pairs of toggle-levers, which connect the frames A and B, their ends being respectively secured to the same, as is clearly shown in Fig. 1. At the joint of each of the toggle-levers is pivoted a horizontal bar, D D', which extends to that leg of the frame A near which the toggle to which it is attached is arranged. Each bar D is provided with teeth *e e*, which mesh into a pinion, *f*, mounted on a shaft, *g*, the latter having its bearings in the support of the frame A, as shown in Fig. 1.

It will be easily understood that by turning the shafts *g g* the toggle-levers will be either spread or contracted, and the frame B will thereby be either moved down or up. The hide is laid over the top beam *a* of the frame A, and is tacked to the boards *c* of the frame B, its outlines being indicated by red lines in Fig. 1. When the shafts *g* are then turned in the direction of the arrows in Fig. 1, the frame B will be lowered and the hide will be stretched.

As the neck portion of the hide should also be stretched in a horizontal direction, a slotted board, E, is arranged in an oblique direction between the frames A and B, and is, by means of a lever, *h*, which is hinged to it, moved whenever the bar D is drawn out by the action of the shaft *g*, the lever *h* fitting into a notch or against a shoulder provided for that purpose in the bar D', as shown in Fig. 1. The neck portion of the hide, being tacked to the board E, is stretched in a horizontal direction whenever the bar D' is moved out.

A short lever, *i*, is hinged to the under side of the bar D, or to a stud projecting from the same, and its lower end fits into a recess or against a shoulder provided in one of the cross-bars of the frame B. This lever *i* is always parallel to the lower arm of the toggle-lever, connected with the bar D, and takes some of the strain from the said toggle-lever, so that the back of the hide can be thoroughly stretched.

Instead of having the frame A stationary and the frame B movable, the frame B may be made stationary and the frame A may be made to slide up and down. The frames, instead of being arranged upright, may also be arranged in a horizontal or oblique position, so that the beam *a* and the boards *c c* may be in a vertical or oblique position.

By means of pawls *y y* fitting into the teeth *e* of the ratchet-bars D, or into the pinions *f f*, the frame can be locked in any desired position, so as to keep the hide stretched for any length of time.

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

1. Connecting the frames A and B of a hide-stretching machine by means of toggle-levers, and operating the latter by ratchet-bars D D' and pinions *f f*, substantially as herein shown and described.

2. The frames A and B, when arranged as and in combination with the toggle-lever C, ratchet-bar D', obliquely-sliding board E, and lever *h*, all made and operating substantially as and for the purpose herein shown and described.

JOHN F. COBURN.

Witnesses:

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