

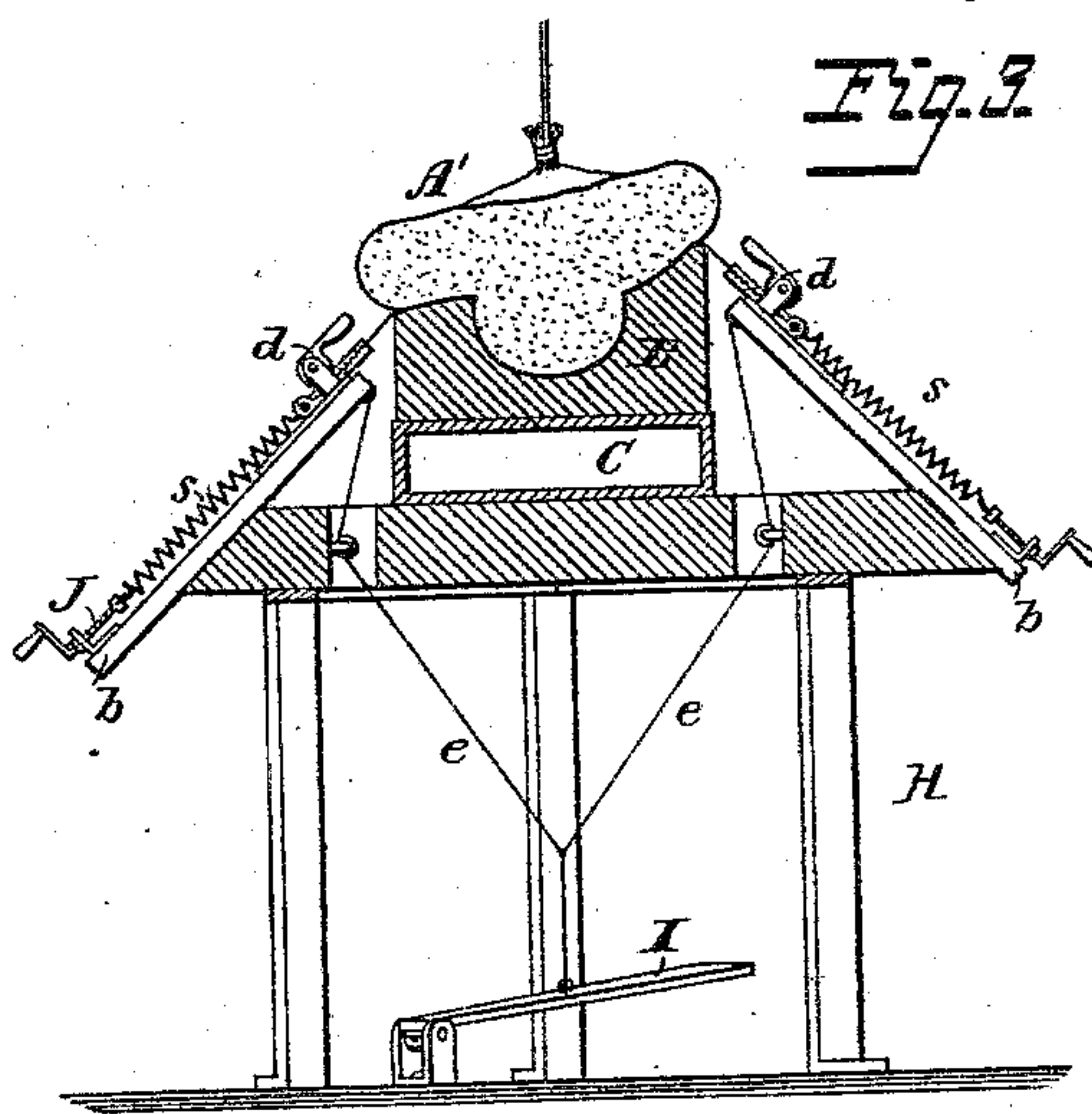
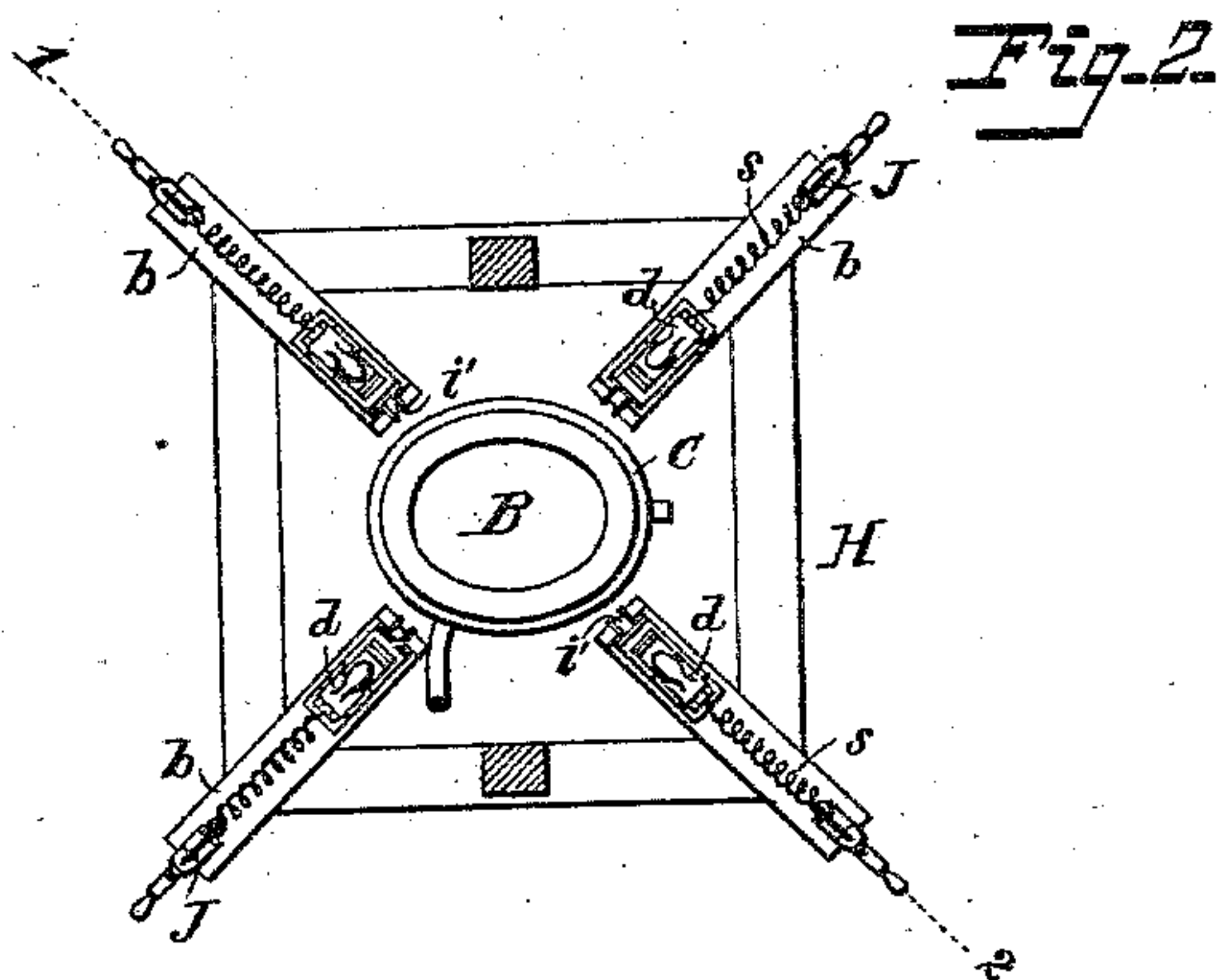
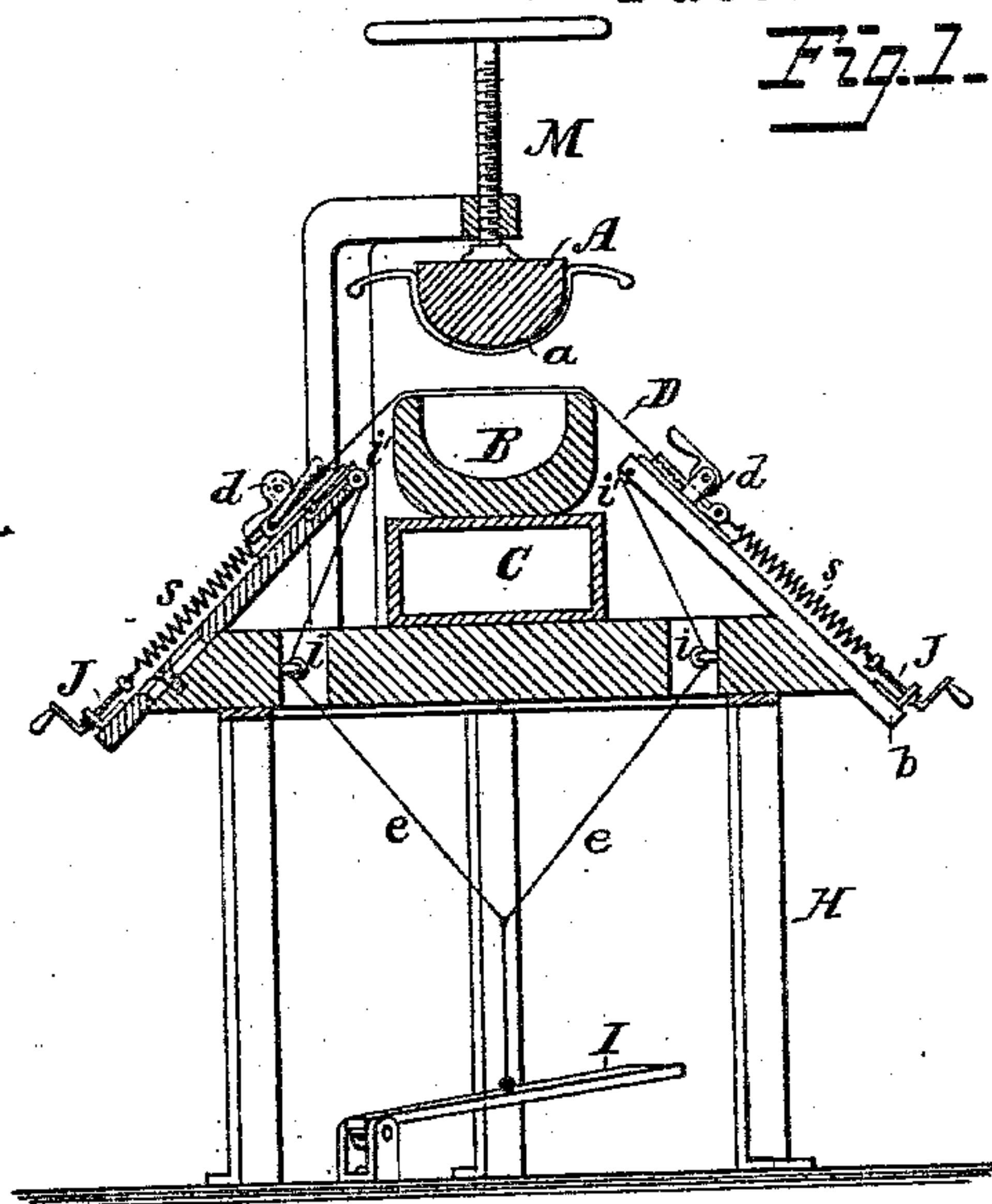
(No Model.)

D. & D. C. WHEELER.

COVERING HAT FRAMES.

No. 280,981.

Patented July 10, 1883.



Attest:  
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# UNITED STATES PATENT OFFICE.

DWIGHT WHEELER AND DAVID C. WHEELER, OF BRIDGEPORT, CONN.

## COVERING HAT-FRAMES.

SPECIFICATION forming part of Letters Patent No. 280,981, dated July 10, 1883.

Application filed October 4, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, DWIGHT WHEELER and DAVID C. WHEELER, of Bridgeport, Fairfield county, Connecticut, have invented certain Improvements in Covering Hat-Frames, of which the following is the specification.

Our invention has for its objects to apply covering materials to hat bodies or frames, so as to secure smooth unwrinkled surfaces and avoid the waste of time and irregular results ensuing from ordinary modes of operation, and to dispense with the necessity of employing skilled workmen. These objects we attain by the means and apparatus hereinafter set forth, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of an apparatus embodying our invention. Fig. 2 is a plan; Fig. 3, a sectional view, showing a modification.

A is a hat-block, upon which is the body or frame *a* to be covered.

B is a female die, corresponding in form to the body-block A, and resting upon a steam-box, C, or otherwise maintained in a hot state.

D is a sheet of silk or other fabric which is to be applied to the body *a*, so as to cover the surface of the latter without creases or wrinkles. This sheet is stretched across the die B, and is held in a state of tension, but so as to yield under pressure, and the body *a*, mounted upon the block and covered with a suitable cement, is forced into the die, the sheet gradually conforming to the body and being drawn over the edge of the die, whereby the wrinkles are obliterated, so that by the time the body is set in the die the sheet has been stretched and conformed to the surface of the body and laid smoothly thereon. The body is then held in the die until the cement is set.

Different apparatus may be employed for maintaining the sheet under a yielding tension. That shown we have found to be very effective, and consists of springs *s*, which draw out the corners or edges of the sheet away from the die, but yield under the strain resulting from the sinking of the block in the die. For convenience, each spring is secured to a radial guide-bar, *b*, and carries at the inner end a clamp, *d*, by which connection can readily be made with the sheet. To draw the

clamps into position to catch the edges of the sheet, we simply employ a treadle, I, connected to the clamps by cords *e*, passing over guide-pulleys *i i'*, as shown. By placing a foot upon and depressing the treadle the springs are drawn out and the clamps carried near to the die. On removing the foot from the treadle the springs draw the sheet taut. A screw, J, provided with a crank-handle and working in a nut on the end of the spring *s*, serves to adjust the tension.

By this mode the covering material is quickly and accurately applied and the operation effected without the services of the skilled workmen heretofore required.

A similar apparatus may be used for applying the covering to brims, or to both crown and brims where the shape will permit. When the brims are of very irregular shape, a sand-bag, A', serves as an equivalent of the block A, as shown in Fig. 3. The appliances described may be mounted upon any suitable frame, H, and a screw, M, or other device may be employed to raise and lower the blocks A. It is not always necessary to heat the die. Weights will serve as equivalents of the springs *s*.

We claim—

1. The within-described improvement in applying coverings to hat frames and bodies, the same consisting in maintaining a yielding tension upon the covering-sheet above a die, into which the blocked body is simultaneously forced, as set forth.

2. The combination of the die, radially-arranged spiral springs, and clamps connected to the end of said springs adjacent to the die, whereby the sheet is maintained taut as the block enters the die, substantially as specified.

3. The combination of the die and springs, whereby the sheet is stretched taut over the die, and appliances for distending the springs and regulating the action thereof, as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

DWIGHT WHEELER.  
DAVID C. WHEELER.

Witnesses:

L. S. CATLIN,  
JOHN M. OTIS.