Sheet 1-2 Sheets.

G. N. Bronson.

Fulling Machine.

No. 1038
32042

Patented Apr. 16, 1861.

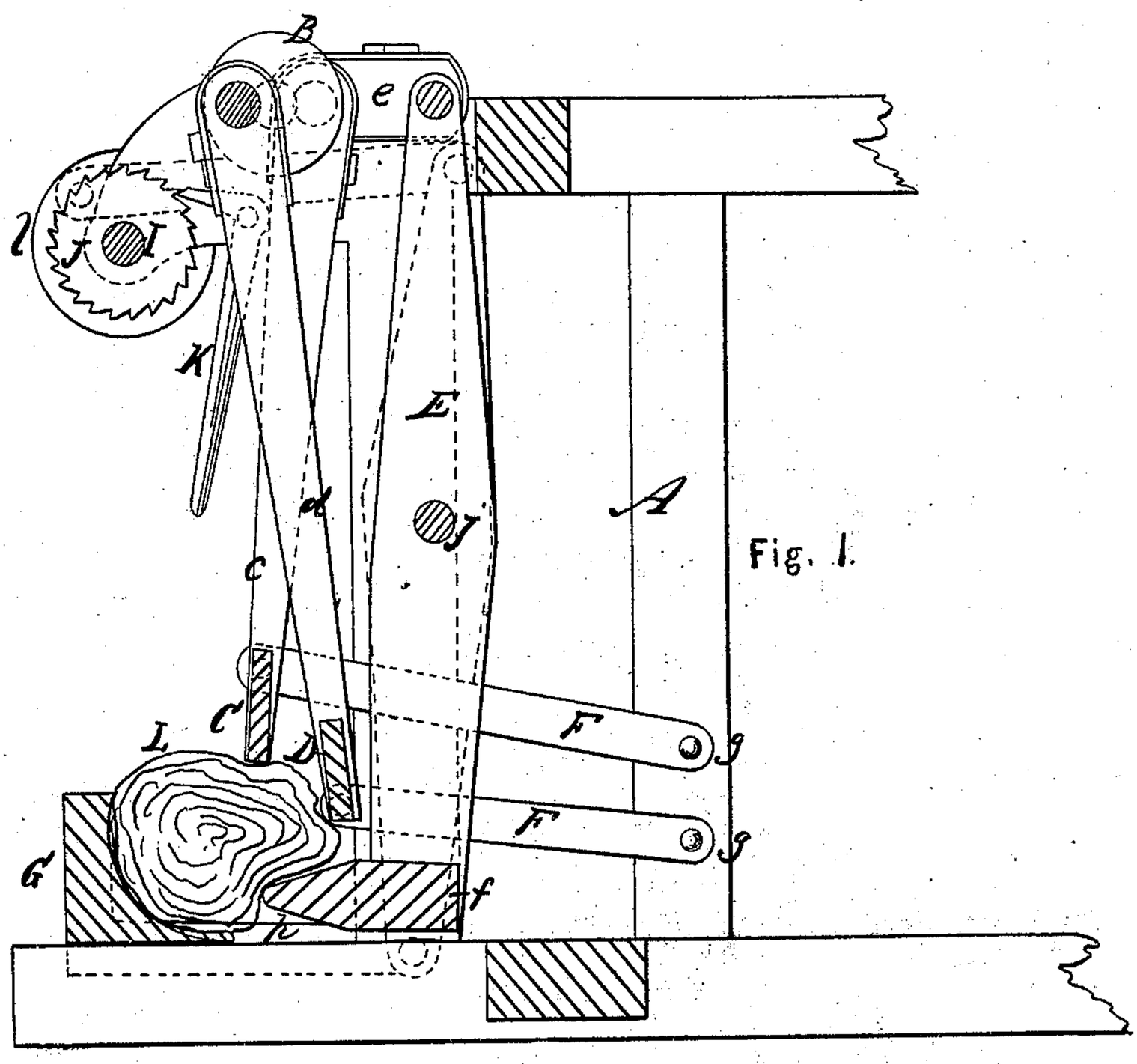

Fig. 1.

Witnesses.
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Inventor.
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Sheet 2 - 2 Sheets.

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Filling Machine.

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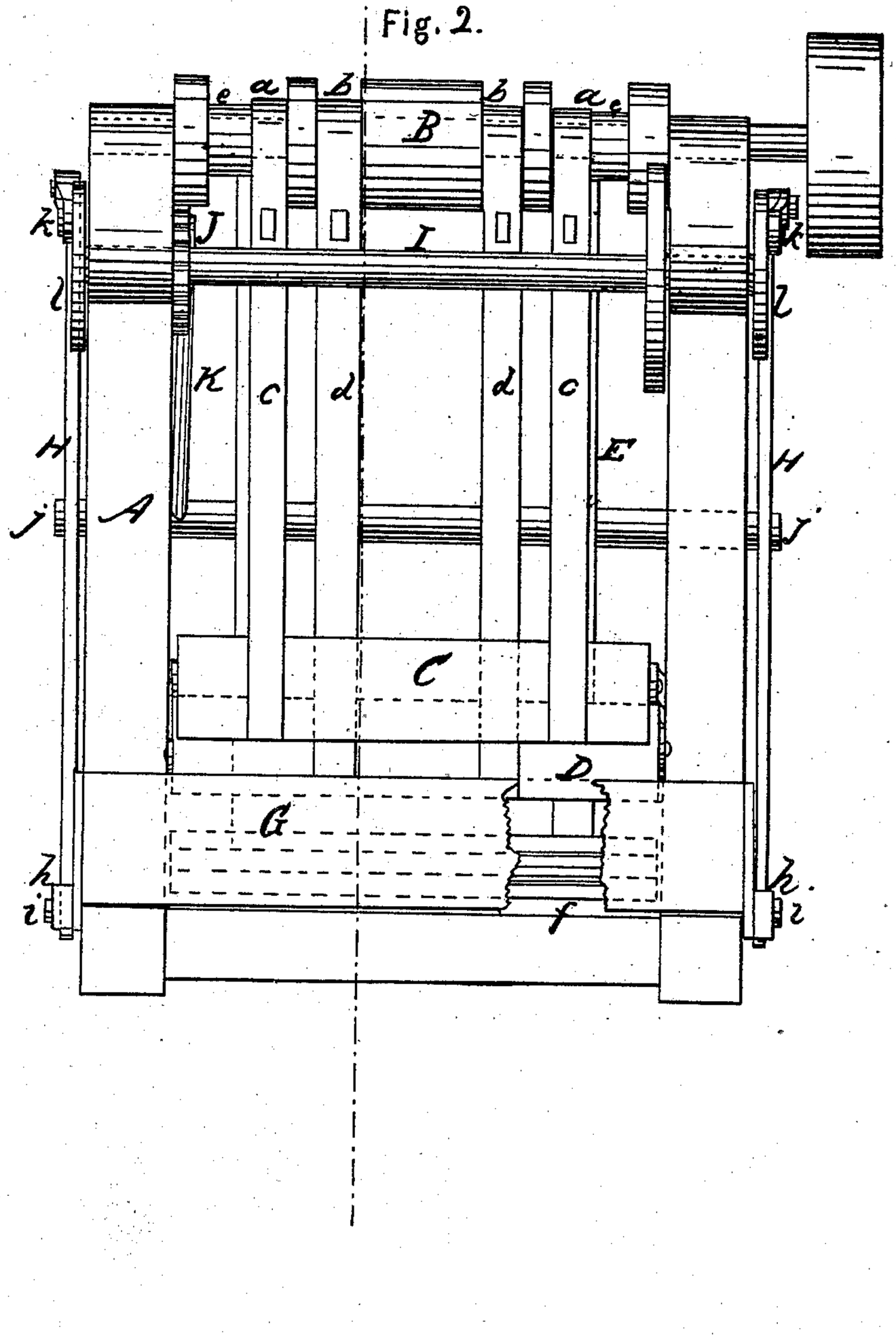
Fig. 2.



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UNITED STATES PATENT OFFICE.

G. N. BRONSON, OF NEW MILFORD, CONNECTICUT.

FELTING-MACHINE.

Specification of Letters Patent No. 32,042, dated April 16, 1861.

To all whom it may concern:

Be it known that I, G. N. BRONSON, of New Milford, in the county of Litchfield and State of Connecticut, have invented a new and Improved Machine for Felting Hat-Bodies and other Articles or Substances; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side sectional view of my invention, taken in the line *x*, *x*, Fig. 2. Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of an adjustable stock or bed in connection with reciprocating beaters arranged substantially as hereinafter fully shown and described whereby the desired work of felting may be very expeditiously and perfectly done.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a rectangular frame, at one end of which at its upper part there is placed a shaft B, on which two pairs of cranks *a*, *a*, *b*, *b*, are placed one pair of cranks having an opposite position to the other. This shaft B, is the driving shaft and to the cranks *a*, *a*, *b*, *b*, arms *c*, *c*, *d*, *d*, are attached. The lower ends of the arms *c*, *c*, of the cranks *a*, *a*, are connected by a cross bar C, and the lower ends of the arms *d*, *d*, are connected by a cross bar D. On the cranks *a*, *a*, of the shaft B, there are placed arms *e*, *e*, to the outer ends of which one end of a lever frame E, is attached. The opposite end of frame E, has a cross bar *f*, secured to it the outer edge of which is beveled as shown clearly in Fig. 1. The ends of the cross bars C, D, of the arms *c*, *c*, *d*, *d*, are connected by arms F, to the frame A, by pivots *g*. The cross bar *f*, of the frame E, is back of the cross bars C, D.

G, is a stock or bar which extends across the uper part of the machine and has its ends attached to the ends of plates *h*, *h*, the opposite ends of which are attached by pivots *i*, *i*, to the ends of levers H, H, which have their fulcra *j*, at the sides of the frame A. The opposite ends of the levers H, H, are attached to arms *k*, *k*, the upper ends of which are connected to crank wheels *l*, *l*, at the ends of a shaft I, on the frame A. This shaft I, has a ratchet J, on it with which a pawl K, engages.

The inner surface of the stock G, is of concave form and it is directly opposite the bars C, D, *f*, as shown plainly in Fig. 1.

The operation of the machine is as follows: The material or substances L, to be felted is placed between the stock G, and the bars C, D, *f*. The shaft B, is rotated by any convenient power and a horizontal reciprocating movement is given the bars C, D, and a vertical reciprocating movement is given the bar *f*. The movement of the bars C, D, *f*, gives a rotating movement to the substance L, and at the same time compress it beneath the stock G, the pressure being regulated by adjusting the stock G, by turning shaft I, the ratchet J, and pawl K, preventing the casual turning of shaft I, and the consequent movement of stock G. Thus by this simple arrangement the felting process may be expeditiously and thoroughly performed.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

The adjustable stock G, in connection with the reciprocating bars C, D, *f*, when arranged for joint operation as and for the purpose herein set forth.

G. N. BRONSON.

Witnesses:
DANIEL B. SEWARD,
WILLIAM B. ALLEN.