

G. A. Watkins.
Chair Machinery

Nº 92,496.

Patented Jul 13. 1869

Fig. 1.

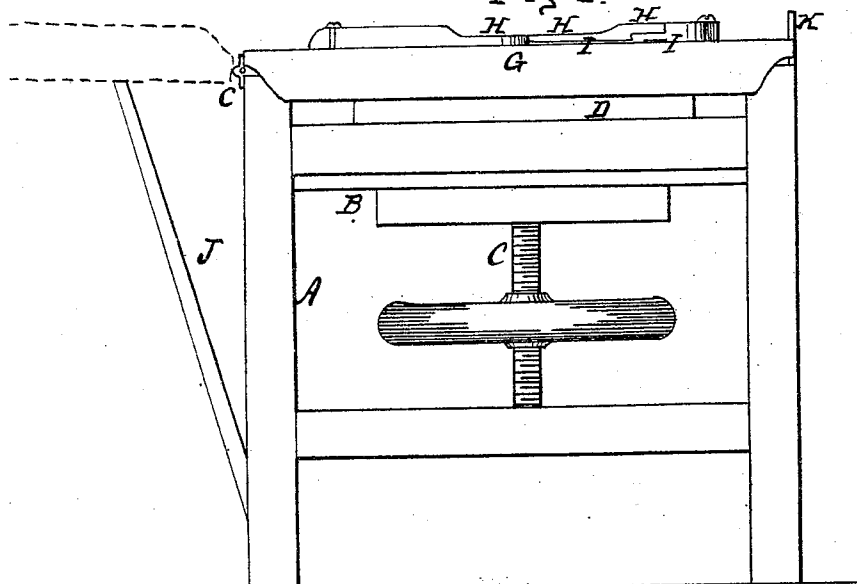


Fig. 2.

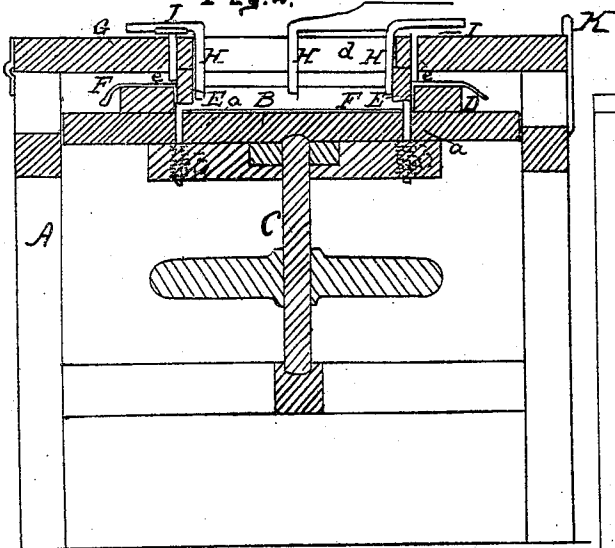
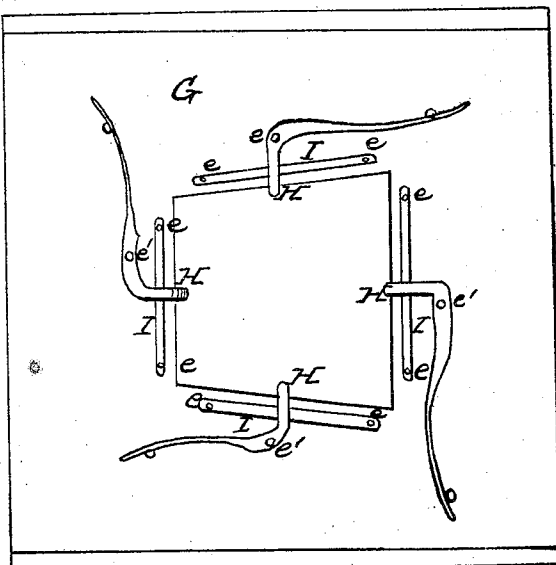


Fig. 3.



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G. A. WATKINS, OF CAVENDISH, VERMONT.

Letters Patent No. 92,496, dated July 13, 1869.

IMPROVED MACHINE FOR PRESSING THE SEATS AND BACKS OF CHAIRS AND SETTEES INTO THEIR 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, G. A. WATKINS, of Cavendish, Proctorsville Post Office, in the county of Windsor, and State of Vermont, have invented a new and useful Machine for Pressing the Seats and Backs of Chairs and Settees in their Frames, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvement, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim, and desire to have secured to me by Letters Patent.

This invention relates to a new and useful machine for pressing or inserting the fabric used for chair and settee-seats and backs in the frame designed to receive and hold it.

The object of the invention is to obtain a device which will admit of the fabric being pressed or inserted into its frame, without any trouble or difficulty whatever, and in such a manner that the fabric will be properly strained or brought to a requisite degree of tension while being pressed into its frame.

The invention is designed to operate with seat-fabrics which are woven in the web, whether of cane, splint, rattan, or other material, and, of course, does not apply to those seats which are woven by hand directly into the seat-frame.

In the accompanying sheet of drawings—

Figure 1 is a side view of my invention.

Figure 2, a vertical central section of the same.

Figure 3, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the several drawings.

A represents a suitable frame, which may be constructed of wood or metal. The latter material would be preferable where considerable pressure requires to be applied in order to insert or press the fabric into its frame.

B is a rising and falling table, fitted in the upper part of the frame A, and operated, in this instance, by a screw, C, although I do not confine myself to this means, as levers or cams might be used. The screw, however, will answer a good purpose.

The table B has four pins, *a*, fitted vertically and loosely in it, so that they may rise and fall freely, said pins having spiral springs *b* fitted on them, which have a tendency to keep the pins elevated or raised to the extent of their upward position. (See fig. 2.)

D represents the seat-frame of a chair, which frame, in using the device, is fitted on the table B, and held in position by the pins *a*, as shown in fig. 2, a pin fitting in each angle or corner of the frame.

E represents an inner frame, over which the seat-fabric F is stretched or strained.

This inner frame E is made of such dimensions

that it will fit snugly within the seat-frame D, and admit of the edges of the seat-fabric F being clamped between E and D, as will be fully understood by referring to fig. 2.

The frame E is secured to the under surface of a lid, or top, G, which is hinged to one side of the frame A, as shown at *c*, an opening, *d*, being made in the top G, equal in dimensions to the interior of the frame E.

This inner frame E is secured to the under surface of the lid, or top G, by means of spring-clamps H and pins *e*, the former being pivoted to the upper surface of the lid, or top G, as shown at *e'*. The inner ends of these clamps extend down, and project and catch over the surfaces of the inner sides of the frame E, while the pins *e* are at the outer surfaces of said frame.

These pins *e* pass loosely through the lid, or top G, and are attached to the ends of springs I, which are secured to the upper surface of G, said springs having a tendency to keep the pins depressed or forced down to their fullest extent.

The pins *e*, as well as the pins *a*, perform the function of guides for the frames D and E, insuring their proper position, respectively, on the under side of the lid, or top G, and on the table B.

The operation, or the way in which the device is used, is as follows:

The lid, or top G is turned over, so as to rest upon a support, or prop, J, attached to one side of the machine. (See red line, fig. 1.)

The frame E is then adjusted to the under side of G, being retained in position by the clamps H and pins *e*.

The seat-frame D is placed on the table B, and held in proper position by the pins *a*.

The seat-fabric F, cut of suitable dimensions, is laid on or over the seat-frame D, and the lid, or top G is then turned down, and secured by a catch, K.

The table B is then raised, through the medium of the screw C, or its equivalent, and the seat-frame D, in being thus forced upward, has the inner frame E pressed within it, and the seat-fabric F clamped between the two frames, and strained taut over frame E.

I do not confine myself to any particular way of fitting E within D, for the frame E may extend entirely through D, be equal in depth to it, or it may be of less depth than D, and fit in a rebate in the inner edge of the latter, E being secured within D by means of nails, screws, or other suitable means.

The guide-pins *a* *e*, it will be perceived, do not interfere in the least with the pressing of the frame E within D, as the springs *b* I admit of them yielding as the table B is raised.

When the table B is fully raised, and the inner frame E pressed within D, and consequently the seat-fabric F properly strained over E, the lid, or top G is turned over, and the seat-frame detached from G, another frame E secured thereto, and another seat-frame

secured upon the table B. The device is then ready for a succeeding operation.

Having thus described my invention,

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

1. The rising and falling, or reciprocating table B, operated by the screw C, or an equivalent means, in connection with the adjustable lid, or top G of the frame A, all constructed and arranged to admit of the inserting or pressing of the frame E within the frame D, and simultaneously therewith, of the clamping and straining of the seat-fabric F between the said frames, substantially as shown and described.

2. The yielding guide-pins *a e*, when arranged and

used in connection with the parts above described, for the purpose specified.

3. The movable clamps H, or their equivalents, attached to the lid, or top G, and arranged, in relation with the opening *d*, for holding the inner frame E to the under surface of the lid, or top G, substantially as set forth.

4. The combination of the lid, or top G, rising and falling table B, movable clamps H, and the guide-pins *a e*, all arranged to operate in the manner substantially as and for the purpose specified.

Witnesses:

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