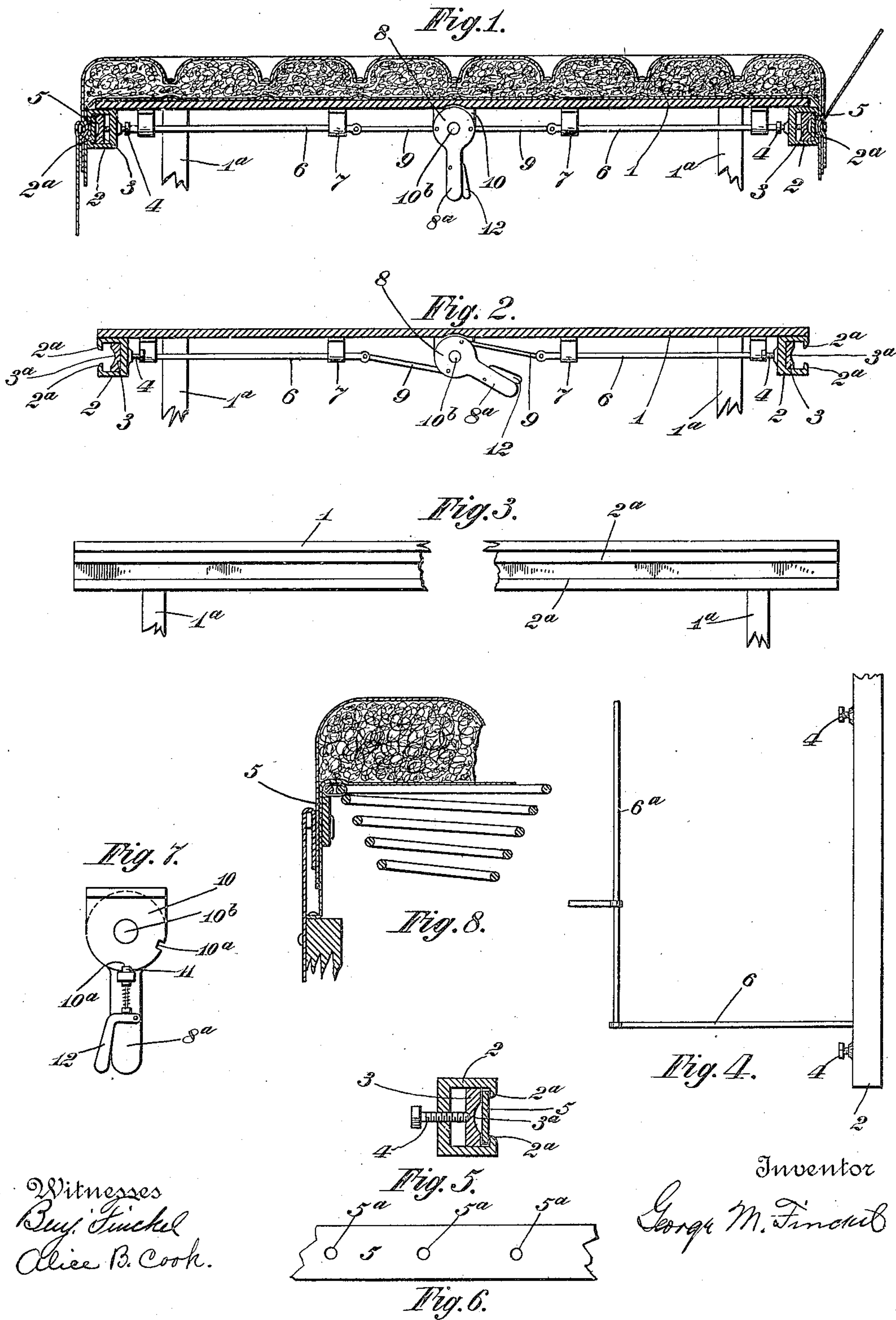


No. 875,252.

PATENTED DEC. 31, 1907.

G. M. FINCKEL.  
APPARATUS FOR MANUFACTURING UPHOLSTERY.  
APPLICATION FILED DEC. 12, 1906.





# UNITED STATES PATENT OFFICE.

GEORGE M. FINCKEL, OF COLUMBUS, OHIO, ASSIGNOR TO THE E. M. HULSE COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO.

## APPARATUS FOR MANUFACTURING UPHOLSTERY.

No. 875,252.

Specification of Letters Patent.

Patented Dec. 31, 1907.

Application filed December 12, 1906. Serial No. 347,424.

*To all whom it may concern:*

Be it known that I, GEORGE M. FINCKEL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Apparatus for Manufacturing Upholstery, of which the following, in connection with the accompanying drawings, is a specification.

The invention relates more particularly to the kind of apparatus illustrated in the United States patent of Edwin M. Hulse No. 824,868, dated July 3, 1906, for manufacturing pads resembling those shown in the United States Letters Patent of the same patentee, No. 823,785, dated June 19, 1906. In the structure of said Patent No. 824,868 the edge of the table for supporting an upholstered pad is shown as provided with grooves for the reception of a series of fastening devices to be projected through the fabric by pressing the fabric down on them, and in the structure of said Patent No. 823,785 the pad is described as provided with a locking strip at each of its edges for the purpose of securing the pad on the top of a spring work structure. The apparatus shown in said Patent No. 824,868 can be used for putting stiffening or locking strips on pads as more particularly shown and described in Patent No. 823,785.

The object of the present invention is to provide an improved apparatus adapted for use in the application of a stiffening or locking strip preferably of metal and preferably provided with perforations through which tacks can be driven or projected and clenched to secure the stiffening or locking strip to the covering of the pad; and the invention embodies chiefly, among other things, improved means for holding such strips and adapted for clenching the tacks or fastening devices, but my invention is not confined in its practical embodiment to the instance of it herein shown and described.

In the accompanying drawings—Figure 1 is a cross section of the table showing the strip holders and parts for operating them; Fig. 2 is a similar view showing the strip holders retracted from the position seen in Fig. 1 and the pad removed; Fig. 3 is an edge view of the table showing the strip holder, the parts being broken out at the middle; Fig. 4 is a fractional plan view of the strip holder and the rods attached for moving it

laterally inward or outward; Fig. 5 is a sectional detail of the strip holder on a larger scale; Fig. 6 is a fraction of a perforated stiffening or locking strip; Fig. 7 is a detail in side view on a larger scale of the eccentric device for moving the strip holder; and Fig. 8 is a sectional view through an edge of the upholstered work illustrating how the pad provided with the strip herein shown is secured to the spring work structure and its frame.

In the views 1 designates the table top or pad support which is usually a one-part rectangular structure and adapted to support the pad to be treated. The table is supported upon ordinary legs 1<sup>a</sup>, fractions only of which are shown, adapted to sustain the table top at the proper height from the floor.

In the instance shown the strip holder comprises principally two parts, to wit: first, an outer bar 2 generally of U-form in cross section but provided with inwardly turned lips 2<sup>a</sup> between which is an intervening space to permit the application of the fastening devices, and second, what may be termed an inner clenching and strip-clamping bar 3. In the instance shown the clenching and clamping bar 3 is located within the outer bar 2 and is adapted to be moved toward and from the lips 2<sup>a</sup>. Means for pressing and holding the clenching and clamping bar toward the lips 2<sup>a</sup> may consist of several set screws 4 threaded through the inner wall of the outer bar 2 and engaging the inner side of the inner bar 3.

The character 5, see Figs. 5 and 6, designates the stiffening strip that can be used. This is conveniently of iron or steel and perforated as seen at 5<sup>a</sup>, Fig. 6. When the screws have been turned inward to provide ample space for the purpose, the strip 5 is inserted through the open end of the bar 2 between the lips 2<sup>a</sup> and the bar 3. The bar 3 can then, by turning the screws 4, be moved outward to clamp the strip 5 between the bar 3 and the lips 2<sup>a</sup>. The bar 3 as shown has a concaved curved surface 3<sup>a</sup> along its outer face to provide for turning and clenching the points of the tacks driven through the strip 5. This concaved clenching surface is especially advantageous when the strip 5 is of hard metal, for if the bar lies flat against the strip the points of the tacks might be merely crushed and not turned and clenched. The tacks, if made of sufficient length, are



turned by the concave surface beyond the edge of the hole in the strip and engage the inner side of the strip and thus secure the strip to the fabric of the pad. The strip holders as thus described are preferably secured to the opposite edges of the table top and parallel thereto, and they are preferably adapted to be slid horizontally laterally to project a little beyond said edge during the operation of tacking the pad coverings and strip together, and to be moved from their projected position for the purpose of relieving the strain between the parts, thereby permitting the pad and strip to be more easily taken off the table.

For the purpose of facilitating the operation of moving the bars jointly both outward and inward they are provided with stems or shanks 6 supported to slide in bearings 7 secured to the underside of the table top, said shanks being first connected together by rods 6<sup>a</sup> and further connected by means of links 9 to a disk 8 having a handle 8<sup>a</sup>. The disk 8 is mounted on a pin 10<sup>b</sup> projecting from a bracket 10 secured to the under side of the table near its middle. By turning the disk in the proper direction the holders can be moved outward or inward: and to lock them in their outer or inner position the edge of the bracket 10 is made with notches 10<sup>a</sup> to be engaged by a spring-actuated pin 11 on the handle of the disk. The pin 11 can be operated by means of a handle 12 to which said pin is attached, the pin being held in locking position by means of a coil spring pushing it toward the edge of the bracket and into one or the other of the notches.

The table can be provided with a strip-holding device at one side only, in which case means for moving and locking a holder at the opposite side can, of course, be omitted, and the pad held at the edge not being treated in any suitable way.

In practice, and briefly stated, the operation is this: A strip 5, such as is shown in Fig. 6, is first properly placed in the holder by sliding it endwise thereinto. The clamping-bar 3 is then moved outward by means of the screws 4, whereby the strip 5 is clamped between the bar 3 and the lips 2<sup>a</sup>, 2<sup>a</sup>, on the bar 2. The strip-holder, including the parts 2 and 3, is then slightly projected beyond the edge of the table top, see Fig. 1. The pad is then laid and secured on the table with its edge parallel to the holder. The edge tufts of the pad are then properly filled and the flexible coverings tacked to the strip 5 as fast as the tufts are satisfactorily filled. The opposite edge of the pad is treated in the same way. After both edges have been treated the holders are drawn inward by operating the lever 8<sup>a</sup>. Tacks or fastening devices of any suitable kind can be used, and the form of the concave clenching surface on the bar 3 varied to suit them. The usual

edge band, plain or ruffled, can be included in the tacking, it being first attached as seen at the right-hand side of Fig. 1, and afterwards turned down to cover the heads of the tacks, as seen at the left-hand side of Fig. 1.

In Fig. 8 I have indicated how the pad provided with the stiffening strip 5 can be secured to the spring work and frame of a couch. When properly put in place the stiffening strip extends along and substantially parallel to the edge wire of the spring work and the pad with the strip fits on the spring work somewhat like a lid fits on its box, and after the flexible band and the projecting portion of the flexible undercovering or burlap of the pad are tacked down in place on the frame the pad is held securely in place on the spring work by the stiffening or locking strip after the manner shown and described in the aforesaid patent of E. M. Hulse No. 823,785.

I am aware of the application of Alfred Freschl filed on or about December 10, 1906, and I do not wish to claim anything coverable in said application.

What I claim and desire to secure by Letters Patent is:

1. In apparatus for the manufacture of upholstery, the combination of a table upon which the upholstery can be supported, a holder at the edge of said table for the reception of a strip of material to be added to the upholstery and through which strip fastening devices are to be passed, said holder comprising two parts, one part being a clamping bar movable with reference to the other part to engage said strip.

2. In apparatus for the manufacture of upholstery, the combination of a table upon which the upholstery can be supported, a holder at the edge of said table for the reception of a strip of material to be added to the upholstery and through which strip fastening devices are to be passed, said holder comprising two parts, one part being a clamping bar movable with reference to the other part to engage said strip, and means to retain said parts in engagement with the strip.

3. In apparatus for the manufacture of upholstery, the combination of a table upon which the upholstery can be supported, a holder at the edge of said table for the reception of a strip of material to be added to the upholstery and through which strip fastening devices are to be passed, said holder comprising two parts, one part being a clamping bar movable with reference to the other part to engage said strip, and means to retain said parts in engagement with the strip, and means for moving them jointly with reference to the edge of the table.

4. In apparatus for the manufacture of upholstery, the combination of a table upon which the upholstery can be supported, a



holder at the edge of said table for the reception of a strip of material to be added to the upholstery and through which strip fastening devices are to be passed, said holder comprising a bar of U form in cross section and provided with lips, said bar containing a second bar, and means for moving the second bar toward said lips to clamp the strip between it and the lips.

10 5. In apparatus for the manufacture of upholstery, the combination of a table upon which the upholstery can be supported, a

holder at the edge of said table for the reception of a strip of material to be added to the upholstery and through which strip fastening devices are to be passed, said holder comprising two parts, one part being movable toward the other part to clamp the strip, and one of said parts provided with a concave tack-clenching surface. 15

GEORGE M. FINCKEL.

In the presence of—

BENJAMIN FINCKEL,  
ALICE B. COOK.