No. 702,340. Patented June 10, 1902.

G. BUCKMAN.

MACHINE FOR MAKING CUSHIONS.

(Application filed Apr. 19, 1901.)

(No Model.) 2 Sheets—Sheet 1.

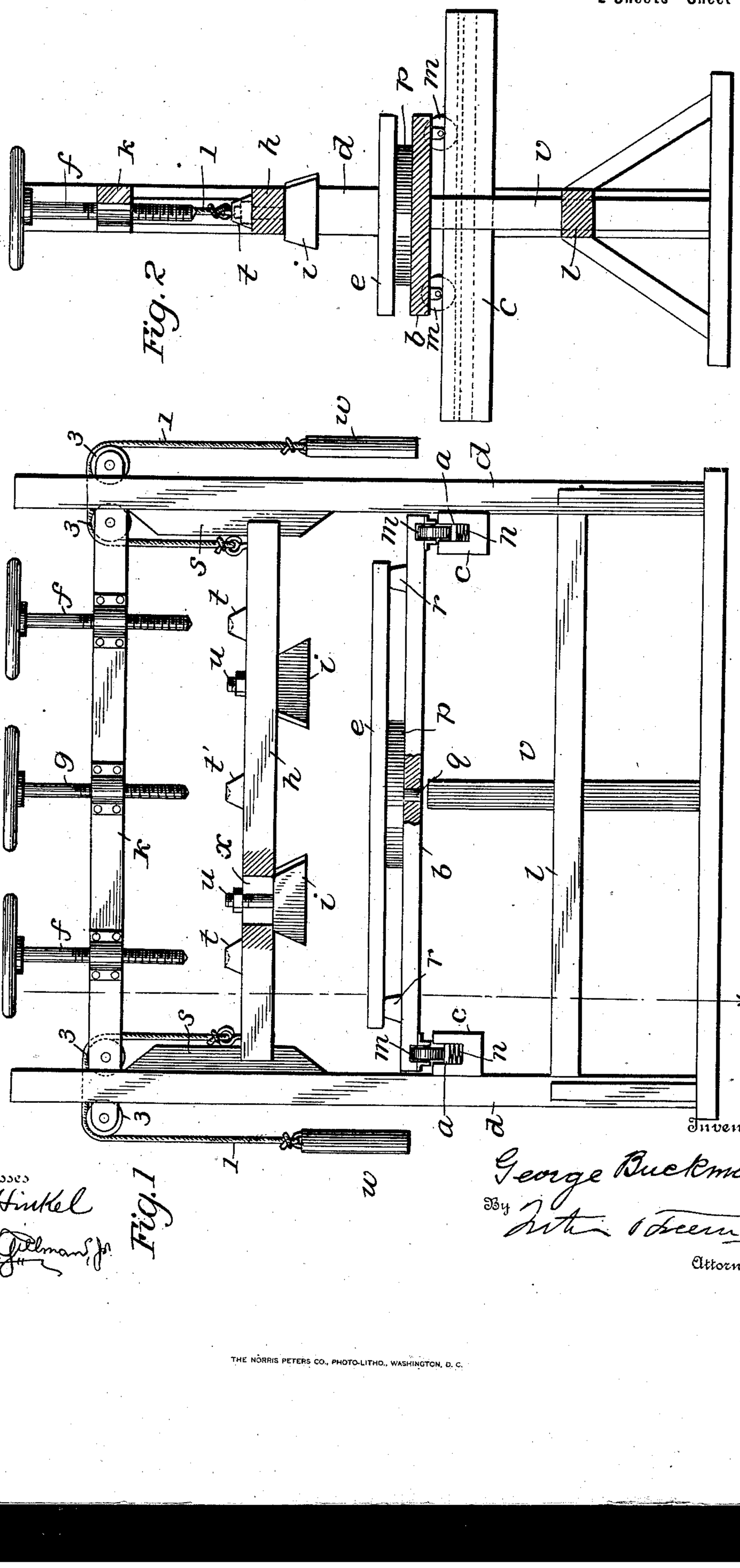

Fig. 1.

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Fig. 3.

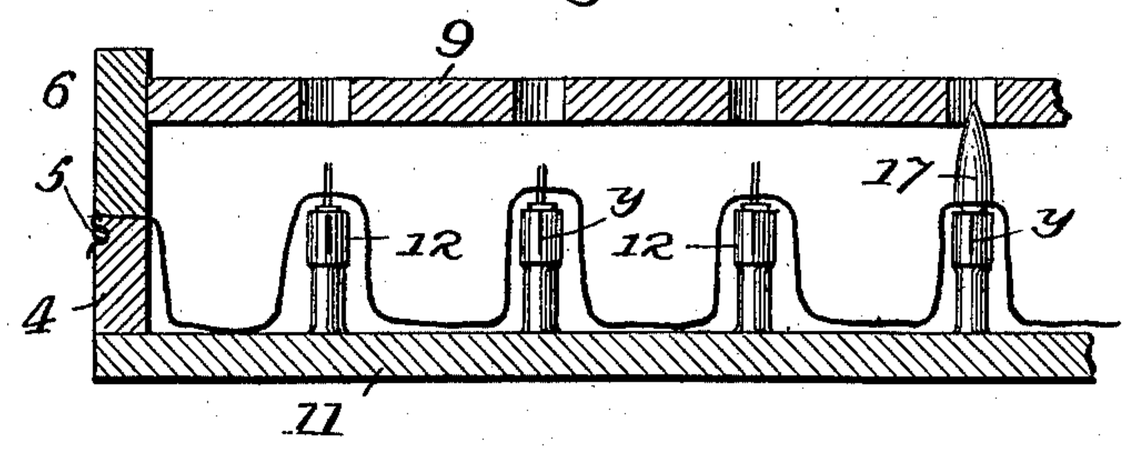


Fig. 4

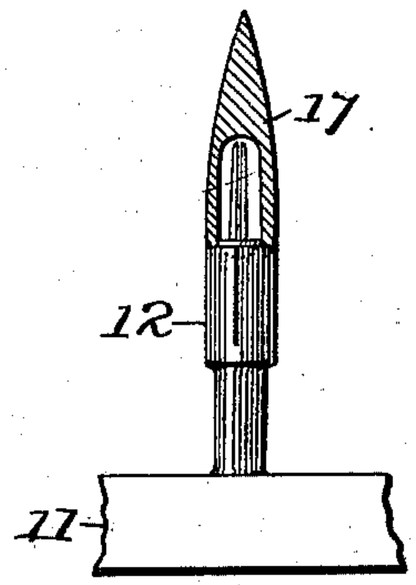


Fig. 5.

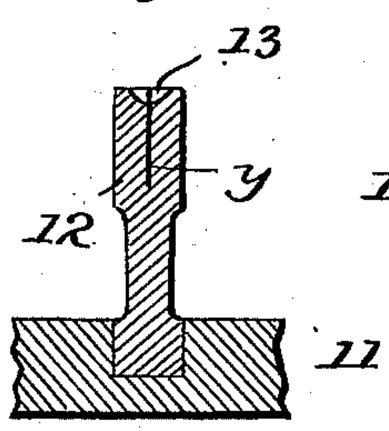


Fig. 6

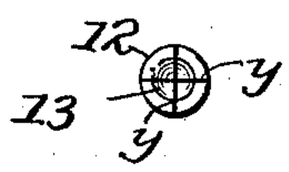
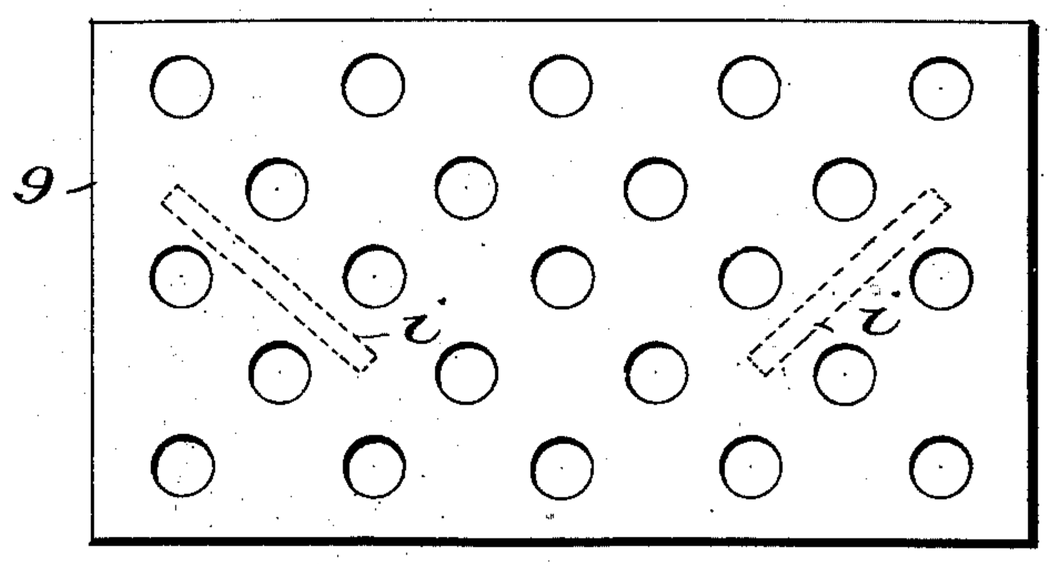


Fig. 7.



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UNITED STATES PATENT OFFICE.

GEORGE BUCKMAN, OF BURLINGTON, NEW JERSEY.

MACHINE FOR MAKING CUSHIONS.

SPECIFICATION forming part of Letters Patent No. 702,340, dated June 10, 1902.

Application filed April 19, 1901. Serial No. 56,628. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BUCKMAN, a citizen of the United States, residing at Burlington, in the county of Burlington and State of New Jersey, have invented certain new and useful Improvements in Machines for Making Cushions, of which the following is a specification.

My invention relates to that class of apparatus employed for facilitating the manufacture of cushions for carriages and other purposes; and my invention consists in certain details of construction fully set forth hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a front view, in part section, of my improved apparatus. Fig. 2 is a transverse section on the line 2 2, Fig. 1; Fig. 3, an enlarged part-sectional view of the parts used for supporting the coverings and filling and connecting the same. Fig. 4 is an elevation in part section of one of the button-pegs and protectors; Fig. 5, a sectional elevation of one of the button-pegs; Fig. 6, an end view of one of the pegs; Fig. 7, a plan view of the perforated presser-boards.

The frame of the machine is provided with side pieces in the shape of uprights *d*, which may be connected by cross-pieces *k l* and suitably braced, and to the uprights *d* are secured two parallel beams *c c*, which serve as supports for the carriage *b* of the table *e*. Preferably the carriage *b* does not rest directly on the beams *c*, but is provided with rollers *m*, which run upon rails *a* in grooves of the beams *c*, the said rails resting on springs *n*.

The table *e* is pivoted so as to swing centrally upon the carriage *b*. This pivoting may be done in any suitable way. As shown, there is a disk *p* below the table *e* with a pin *q* fitting a recess in the top of the carriage and serving as a pivot for the table, the ends of which may rest on studs *r* to prevent the table from sagging down at the ends.

Each upright *d* is provided with a guide *s*, extending into a slot in the end of a presser-beam *h*, to which are connected cords 1, passing over guide-pulleys 3 3 and each supporting a weight *w*, which tends to lift the presser-beam, while screws *f f* and *g* extend through threaded bearings of the cross-bar *k*, so that their inner ends may be brought against socket-pieces *t t'* on the pressser-beam to depress the latter.

The presser-beam *h* carries two blades *i i*, which are secured thereto in any suitable manner, so as to be adjustable. Preferably the beam has slots *x*, through which extend bolts *u*, secured to the blades, with nuts on the bolts bearing on the top of the beam. This permits each blade to be moved longitudinally and turned to any desired angle in order that the blades may properly coöperate with a follower-board of the character referred to below.

The above-described parts may be used in connection with any suitable cushion beds and frames, but preferably in connection with the parts illustrated in Figs. 3 to 7. In these figures there is represented a cushion-bed 11, having sockets for the reception of button-pegs 12, each of which has a recess 13, adapted to the head of the button, different pegs being used for a different button, and the said pegs are made, preferably, of wood with cross-slits *y y*, giving a certain amount of spring which will tend to clamp the button-head. Upon the cushion-bed 11 is placed the cushion-bed frame 4, and the cloth or other material constituting the face of the cushion is placed upon the pegs with the shanks of the buttons passing through holes in the cloth at proper points, the fullness of the cloth extending between the pegs, and the edges of the cloth are plaited against the inside of the frame 4 and are then held down by suitable clamping devices—as, for instance, by means of a clamping-wire 5 around the frame. Upon the bed-frame 4 is placed a second frame 6, and the stem of each button is covered by a protector 17, pointed in shape and with a socket to receive the stem, as shown in Fig. 4, and the filling is then placed within the frame 6, and the protectors are then removed and the fabric cover for the bottom is laid on, after which a perforated follower-board 9 is placed upon the said material, and the beam *h* is forced down by the screws *f f*, thus bringing the blades *i* to a position to bear upon the board, as indicated in Fig. 7, and sufficient pressure is applied by means of the screws and beam to condense the filling to the desired extent. While the filling is thus under compression the shanks of the buttons are

clenched or provided with tufts or otherwise, so as to hold the bottom covering to the shanks. The presser-beam *h* is now lifted, and the seat-frame is supplied to the bottom material and is held in place while the edges of the bottom material and the top cover are tacked to the frame, the presser-beam *h* being brought against the seat-frame by means of the single screw *g*, (which has a more rapid thread than the screws *f*,) as but comparatively slight pressure is required to hold the seat-frame in place.

It is of course necessary to provide a positive or solid bearing for the carriage when pressure is exerted thereon during the condensation of the filling of the cushion. The journals of the rollers *m* would not at all times withstand this pressure without liability of being bent, and thereby rendering the rollers inoperative. It is also necessary in order that the carriage may be freely moved that it should not be in frictional engagement with the beam *c* during such movement. To attain these ends, I provide the yielding supports for the rails upon which the rollers *m* run. Normally the carriage is out of engagement with the beams *c;* but when pressure is applied to it the rail-supports will yield and permit either the carriage or the bearings for the journals of the rollers to directly engage the beams *c*, and no strain will be imposed upon the journals of the rollers *m*. Further, it is obvious that as the table is pivoted to the carriage it may be swung around upon the carriage to any desired position required to enable the proper manipulation of the material in making the cushion. To further support the parts when pressure is applied, a central standard *v* may be arranged so that the carriage will take its bearing on the upper end of the same when pressure is applied.

While I have shown screws for applying the pressure, it will be evident that any desired forms of presser devices may be substituted therefor, and it will also be evident that there may be different forms of yielding bearings for the table and that the table-carriage and the frame of the apparatus may be differently constructed from the construction shown without departing from the main features of my invention.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

1. The combination in a cushion-making machine, of a supporting-frame, pressing devices, and a sliding carriage and yielding bearings therefor, substantially as set forth.

2. The combination with the sliding carriage of a cushion-making machine, of a table supported thereby, rails upon which said carriage runs, and yielding bearings for said rails, substantially as set forth.

3. The combination with the frame of a cushion-making machine, of recessed beams, rails fitted to the recesses in said beams, springs supporting the rails, and a sliding carriage provided with wheels resting upon the rails, substantially as set forth.

4. The combination in a cushion-making machine, of a supporting-frame, pressing devices, a movable carriage, yielding bearings for the carriage, and a fixed bearing *v* to be engaged by the carriage when the yielding bearings are depressed, substantially as set forth.

5. The combination of the carriage *b*, yielding supports therefor, a table *e* pivoted to said carriage, presser devices, and a support *v* in position to be engaged by the middle portion of the carriage when the latter is depressed, substantially as set forth.

6. The combination of the carriage *b* and yielding supports therefor, and a table *e* pivoted to said carriage and presser devices, substantially as set forth.

7. The combination with the frame, the table, and the follower-board, of a cushion-making machine, of a movable presser-beam, and adjustable blades carried by the said beam, substantially as set forth.

8. The combination of the frame, the table, the follower-board, the presser-beam provided with slots *x*, and the blades *i* provided with bolts extending through the slots and with nuts bearing upon the presser-beam, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE BUCKMAN.

Witnesses:
A. W. DRESSER,
J. F. TATLOW.