

(No Model.)

E. A. POTTER.
TUFTING MACHINE.

No. 592,167.

Patented Oct. 19, 1897.

Fig. 2.

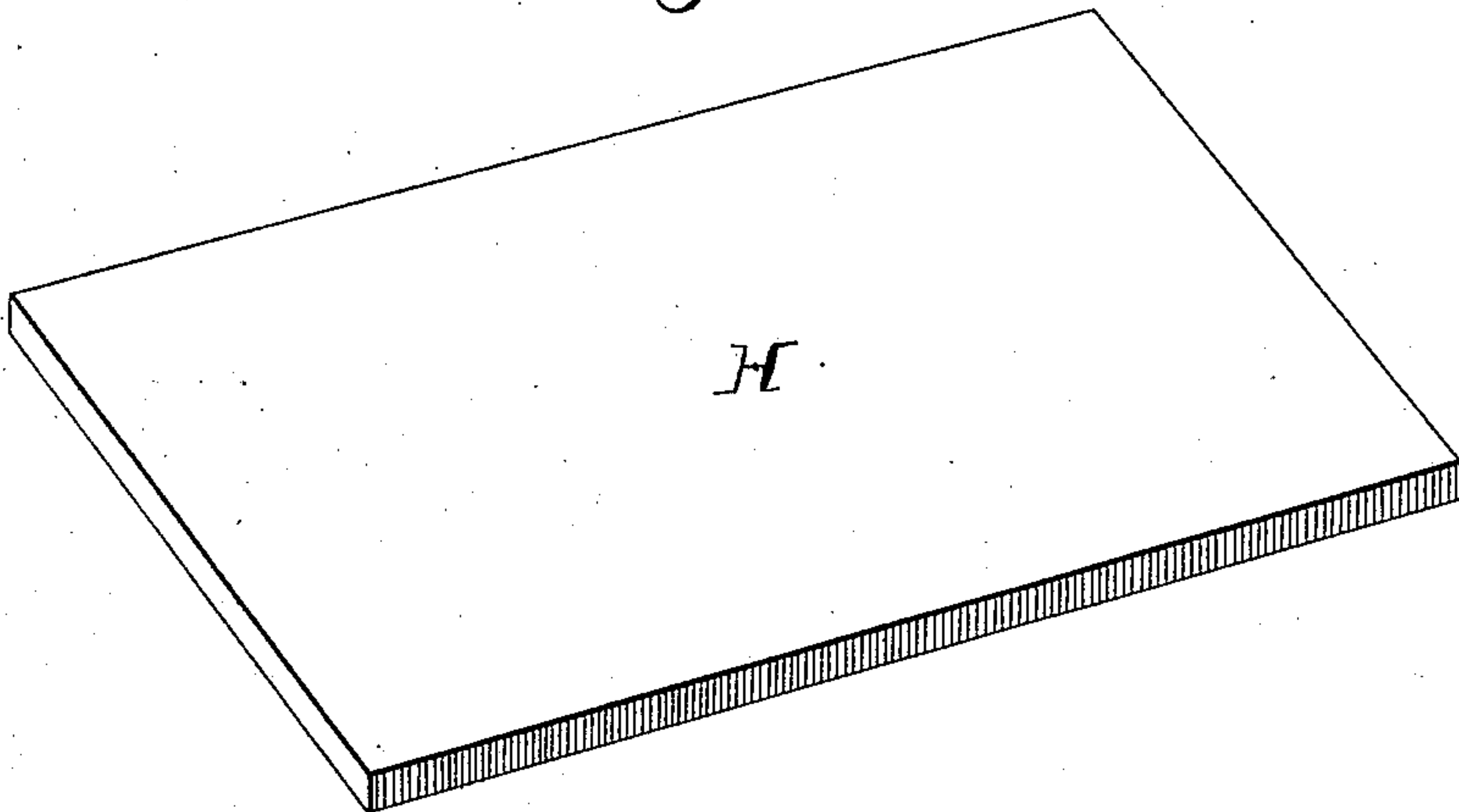


Fig. 1.

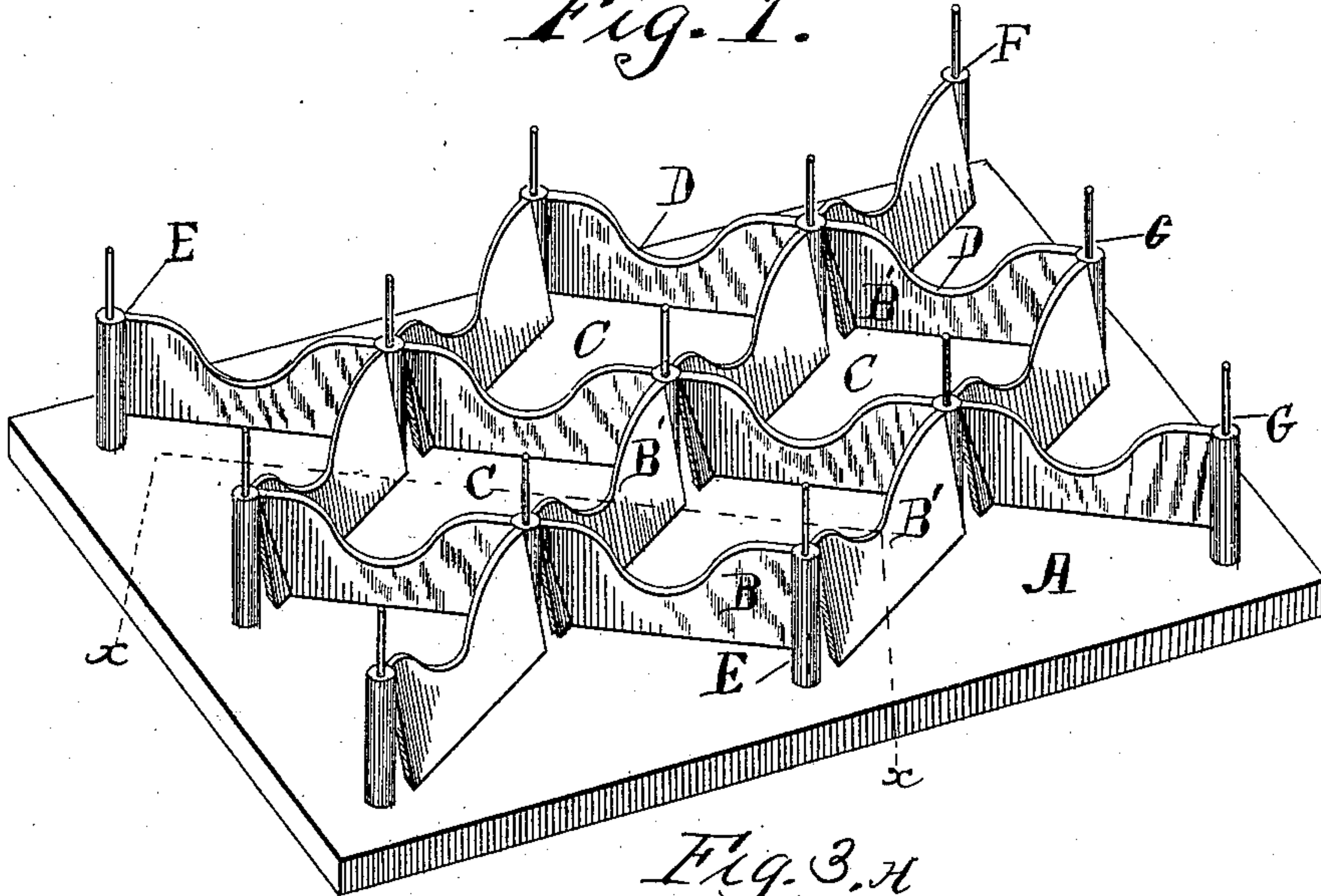
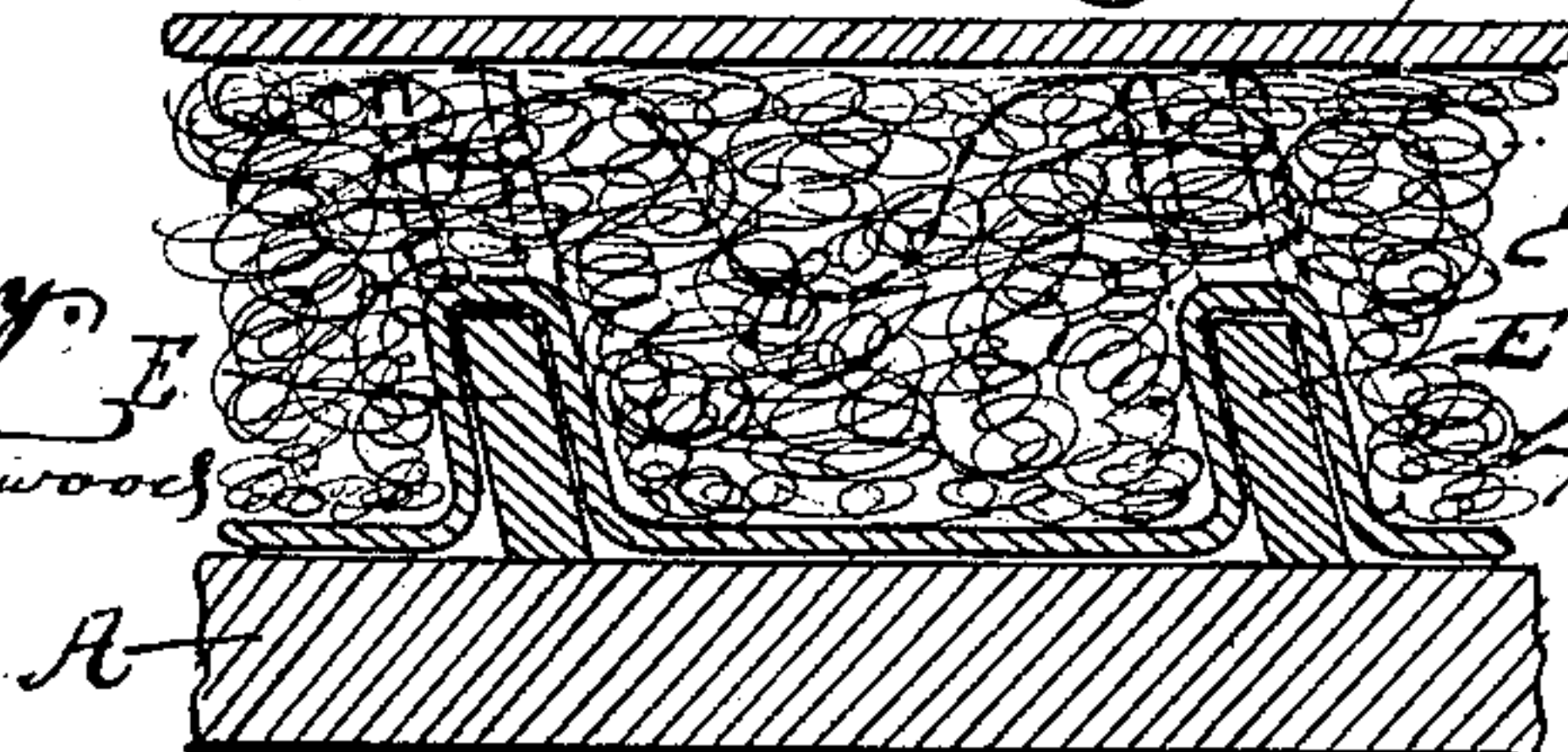


Fig. 3.

Witnesses.

R. A. Sydney.

M. A. Westwood.



E. A. Potter.

Edward A. Potter

by C. A. Ruckes

his attorney.

UNITED STATES PATENT OFFICE.

EDWARD A. POTTER, OF TORONTO, CANADA.

TUFTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 592,167, dated October 19, 1897.

Application filed October 10, 1896. Serial No. 608,506. (No model.) Patented in Canada November 2, 1896, No. 53,926.

To all whom it may concern:

Be it known that I, EDWARD ALBERT POTTER, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Tufting-Machines, (for which I have obtained Letters Patent in Canada, No. 53,926, dated November 2, 1896;) and I hereby declare that the following is a full, clear, and exact description of the same.

The object of the invention is to produce a machine by means of which all classes of upholstering work may be rapidly and easily plaited and buttoned by unskilled labor; and the invention consists, essentially, of a series of plait-formers arranged to form a succession of dies on parallel and successive alignments, the sides of the plait-formers being set at an inclination to the base of the machine, so as to form the plait, and a series of tuft-formers set one at each corner of each of the dies to form an indentation for the button, the whole device being hereinafter more fully set forth, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a section of the complete apparatus. Fig. 2 is a perspective view of a section of the presser-plate. Fig. 3 is a part sectional elevation of Fig. 2 on the line $x x$.

Like letters of reference refer to like parts throughout the specification and drawings.

A represents the base of the tufting-machine, which may be made of wood or other material suitable for the purpose.

B B and B' B' represent the plait-formers, arranged at an incline to the base. The plait-formers B are arranged diagonally across the base A from right to left, while the plait-formers B' are arranged across the base A from left to right. The plait-formers B B are arranged on parallel and successive alignments and at equidistant intervals from each other. The plait-formers B' B' are similarly arranged, the same interval existing between the plait-formers B' B' as exists between the plait-formers B B. The plait-formers B' B' intersect the plait-formers B B at regular intervals and form the dies C.

To produce the fullness in the plait, a semi-circular recess D is cut in the middle of each

of the plait-formers B B', the curve of the upper part of the recess D being convexed or curved into the top of the plait-former, so that the recess might be styled "concavo-convex."

E represents a series of posts, one set at each corner of each of the dies C. The posts E are connected to the plait-formers B B', which are preferably made in sections equal in length to the length of the sides of the dies C. The plait-formers and posts or tuft-formers are preferably constructed of metal, in order that they will better resist the wear and tear placed upon them and make a better-defined plait and tuft than if made of wood or coarser material. In the top of each of the posts or tuft-formers E is a hole or recess F, to receive a pin G.

The use of the machine is as follows: The goods are first marked out to the required fullness, the shape formed on the goods corresponding with the shape of the dies. The goods are then set face down on the dies and the pins are inserted through the corners of the intersecting lines, marking the fullness, into the sockets or holes in the top of the posts or tuft-formers, these pins holding the goods securely in position. The stuffing is then filled into the goods in the dies until the dies are filled. The pins are then removed and the goods are glued at the tops of the tuft-formers or posts. The lining is then placed over the goods and stuffing, and a presser H is placed on the top of the lining to press the lining firmly against the goods, in order that the goods and lining will be properly glued together, the upholstered work being permitted to stand until thoroughly dry, after which it is removed from the machine and finished. After being removed from the machine indentations will be found for the buttons where the goods rested on the tops of posts or tuft-formers. The buttons are then sewed to the goods where the indentations occur and the work is then turned out as finished. By means of this machine an unskilled girl can turn out finished upholstered work in a manner equal to the best skilled labor, with greater rapidity and ease and at a much smaller cost.

I do not make any claim to any particular

size or shape of the dies, as I may make use of any shape, size, or style that I find suitable for the work.

The advantage of the centrally-recessed 5 plait-formers may be explained as follows: The material constituting the covering of the upholstery is placed in position over the dies and is sufficiently loose to permit its being pressed into the molds and held temporarily by the removable pins. The stuffing 10 is then pressed or pounded into the molds until the latter are filled, as shown in Fig. 3, when the pins are removed and a backing coated with glue is laid on, the cover and 15 backing touching each other at the tops of the posts, thus uniting them at these points. The semicircular recesses in the middle of each of the plait-formers permit the formation of projected portions or enlargements in the pads of the upholstered surface, and said 20 plait-formers deepen or depress the plaits at and near the points where they cross each other. Thus the product of the apparatus instead of presenting well-defined creases extending from one button to another, as would 25 result if the top edges of the plait-formers presented a straight horizontal edge, have the central portions between the buttons bulged out or of convex form, there being substantially no creasing except at the portions of 30 the pads located adjacent to the buttons, in imitation of handwork, and hence increasing the cushioning-surface.

The tops of the posts extend beyond the 35 width of the formers B, and thus indent or mark the goods for the location of the buttons.

The inclination of the formers B B' from the perpendicular results in the formation of 40 plaits which are sloped or inclined from the face of the finished upholstery, as distin-

guished from a plait at right angles to the said finished face, and hence the plait is more completely overlapped by the adjacent bulging portions of the material to conceal any 45 defects in the work.

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

1. A tufting-machine, consisting of a series 50 of successive dies, each comprised of a series of plait-formers arranged to form the plaits and recessed at their upper edges, and a series of tuft-formers to form the indentations for the buttons, substantially as specified. 55

2. A tufting-machine consisting of a base, a series of successive dies mounted on the base, each die comprised of a series of plait-formers recessed at their upper edges and arranged to form the requisite shape and set at 60 an inclination to the base, a tuft-former set at each corner of each die to form an indentation for the button, and a series of pins adapted to be inserted into the tops of the tuft-formers, substantially as specified. 65

3. A tufting-machine consisting of a base, a series of successive dies mounted on the base, each die comprised of a series of centrally-recessed plait-formers arranged to form the requisite shape and set at an inclination 70 to the base, a tuft-former set at each corner of each die to form an indentation for the button, a series of removable pins adapted to be inserted into the tops of the tuft-formers, and a presser-plate adapted to be supported 75 by the tuft-former, substantially as specified.

Toronto, October 1, 1896.

E. A. POTTER.

In presence of—

C. H. RICHES,

M. A. WESTWOOD.