

No. 626,941.

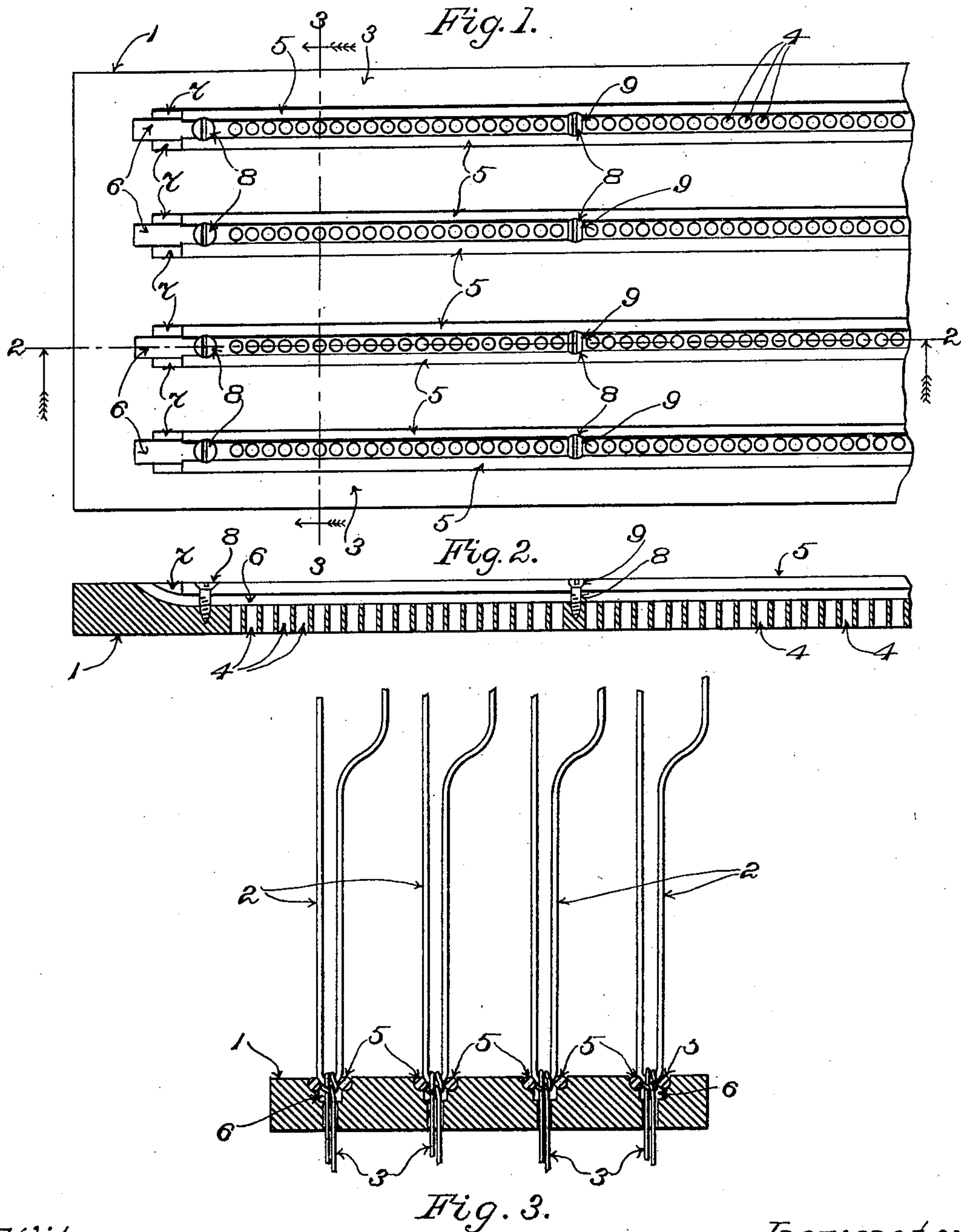
Patented June 13, 1899.

G. W. STAFFORD.

BOTTOM BOARD FOR JACQUARD MACHINES.

(Application filed Jan. 23, 1899.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

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CROMPTON & KNOWLES LOOM WORKS, OF SAME PLACE.

BOTTOM BOARD FOR JACQUARD-MACHINES.

SPECIFICATION forming part of Letters Patent No. 626,941, dated June 13, 1899.

Application filed January 23, 1899. Serial No. 703,062. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. STAFFORD, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bottom Boards for Jacquard-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The aim of the invention is in general to provide a bottom board of improved character and construction and more especially to obviate wear of the bottom board from contact of the bottom or lower ends of the hooked uprights therewith and cutting or wear of the neck-cords where they are connected with the said bottom or lower ends of the uprights.

The invention consists in an improved construction which will be described first with reference to the accompanying drawings, in which latter is illustrated the best embodiment thereof which has yet been contrived, after which the characteristic features of the invention will be particularly pointed out and distinctly defined in the claims at the close of this specification.

In the accompanying drawings, Figure 1 shows in plan part of the length of a bottom board having the invention applied thereto. Fig. 2 is a view in vertical longitudinal section on the plane that is indicated by the dotted line 2 2 of Fig. 1. Fig. 3 is a view in vertical transverse section on the plane that is indicated by the dotted line 3 3 of Fig. 1. In Fig. 3 portions of several of the hooked uprights which are employed in a jacquard-machine are shown, together with portions of the neck-cords which are connected therewith.

In the drawings, 1 designates the bottom board. The uprights are designated 2 2, and the neck-cords are designated 3 3. The holes which are made vertically through the bottom board 1 for the passage of the neck-cords 3 3 are designated 4 4. As customary, the said holes 4 4 herein are formed in lines or series extending parallel with one another and in the direction of the length of the bottom board.

Heretofore the contact of the bottom or lower ends of the uprights with the material of the bottom board at the upper ends of the

holes 4 4 has operated to speedily form grooves in such material extending transversely of such holes, into which grooves the said lower ends would enter, so that notwithstanding the fact that heretofore the upper ends of the holes have been counterbored to receive those portions of the neck-cords which are looped around the lower ends of the uprights the wear resulting from the contact of the uprights with the opposite sides of the counterbored portions of the holes soon has permitted the uprights to sink sufficiently into the upper portion of the bottom board to carry the neck-cord at both sides of the upright into contact with the material of the bottom board at the bottom of the counterbore, and from this has resulted comparatively speedy wear and cutting or breakage of the neck-cords.

In carrying the present invention into effect wires or strips 5 5 are laid parallel with each other on opposite sides of each line of holes 4 4. When the uprights 2 2 are permitted to descend into their lowest position, the bottom ends of the uprights rest on these wires or strips 5 5. These wires or strips 5 5 protect the bottom board from wear resulting from the contact of the bottom ends of the uprights therewith. The wear of the wires or strips 5 5 is very slight and takes place very slowly, and since the said wires or strips prevent the bottom ends of the uprights from cutting into the material of the bottom board and thereby descending sufficiently far to bring the portions of the neck-cords which pass around the said ends of the uprights into contact with the material of the bottom board around the upper ends of the holes 4 4 it follows that the wear and cutting of the said neck-cords heretofore arising from such contact are prevented. In providing for the reception of the portions of the neck-cords which pass around the bottom ends of the uprights it is preferred to form parallel grooves 6 6 along the upper face of the bottom board 1, each of such grooves intersecting the upper ends of the holes 4 4 of one line or series of the said holes, as shown, and preferably also the grooves 6 6 exceed in width the diameter of the holes 4 4. The wires or strips 5 5 are located at opposite sides of each of the grooves 6 6, and while in some cases the wires

or strips may be located in the grooves themselves it has been found most convenient to place the said wires within rabbets, as 7 7, which are formed along opposite sides of each 5 of the grooves 6 6. The wires or strips 5 5 may be held in place in any convenient and suitable manner. The preferred means of holding them in place consists of screws 8 8, which are driven at intervals between the pair of 10 wires or strips corresponding with each groove into portions of the bottom board below the groove, as shown. The head of each screw overlaps and engages with both wires or strips, and thereby serves to secure both of the lat- 15 ter in place. The screws which are located at intermediate points in the length of each series or line of the holes 4 4 preferably are slatted off on opposite sides thereof, as at 9 9, Fig. 1, in order that the distance which necessarily is left between two adjacent holes 4 4 20 of the said series or line for the reception of each of such intermediate screws may be kept as small as possible.

What is claimed as the invention is—

25 1. The combination with the bottom board for jacquard - machines, having the holes therethrough, and having the wires or strips on opposite sides of the said holes, of the uprights having the rounded lower ends making 30 contact with and resting upon the said wires or strips when the uprights occupy their low-

est position, and the neck-cords applied to the said ends and passing through the said holes, substantially as described.

2. The improved bottom board for jac- 35 quard - machines, having the holes therethrough, the groove intersecting the upper ends of the said holes, and the wires or strips located at opposite sides of the said holes and groove, substantially as described. 40

3. The improved bottom board for jac- quard - machines, having the holes there- 45 through, the groove intersecting the upper ends of the said holes, the rabbets at opposite sides of the said grooves, and the wires seated in the said rabbets, substantially as described.

4. The improved bottom board for jac- quard - machines, having the holes there- 50 through, the groove intersecting the upper ends of the said holes, the rabbets at opposite sides of the said groove, the wires or strips in the said rabbets, and the screws inserted between the said wires or strips and holding the 55 latter in place, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE W. STAFFORD.

Witnesses:

E. F. GREENE,
W. G. ANTHONY.