M. BRADLEY.
Plaiting-Machine.

No. 207,796. Patented Sept. 10, 1878.

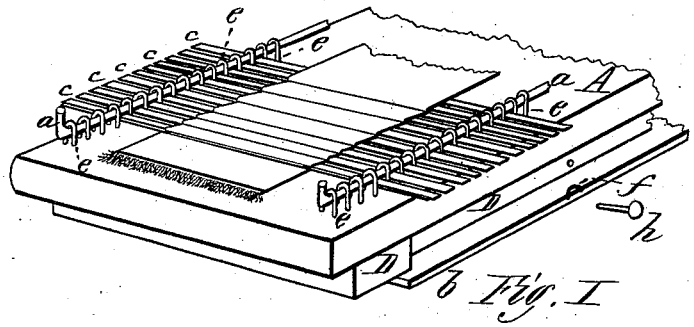

Fig. I

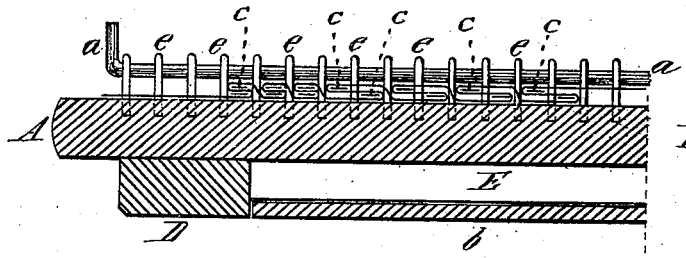

Fig. II

Witnesses—
T. A. Lewis.
Dexter Smith

Inventor
Milton Bradley

UNITED STATES PATENT OFFICE.

MILTON BRADLEY, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN PLAITING-MACHINES.

Specification forming part of Letters Patent No. **207,796**, dated September 10, 1878; application filed March 14, 1878.

To all whom it may concern:

Be it known that I, MILTON BRADLEY, of Springfield, in the State of Massachusetts, have invented a new and useful Improved Plaiting-Machine; and that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, and to the letters of reference marked thereon.

My invention relates to and has for it object the making of various kinds of plaiting—known in general as "knife-plaiting"—used in the manufacture of ladies' wearing apparel; and it consists of a board having arranged upon one side two series of staples—one series near each edge, one opposite the other—each series being arranged in a line, so that a wire may be inserted through each entire series with sufficient room for flat needles to lie beneath the wires and between the staples. The board has upon its opposite side a recess, with a cover hinged and arranged to close the recess and secure the needles kept therein when not in use, all which will be more fully hereinafter described.

Figure I is a perspective view of the device, showing its construction and use; and Fig. II is a vertical section of the same.

In the drawing, A represents a board, of suitable length and width, in which are secured two series of staples, *e*, one series near each edge of the board, and with the staples at a little distance apart, just so that the flat bars or needles *c* will lie in between each two adjacent staples, as shown clearly in the drawing.

a represents a wire, of such size and length as to be inserted easily through the entire length of either series of staples; and the latter extend out from the board, so that when the wire *a* is inserted into them the flat needles or bars *c* may be inserted beneath the wire and between the staples, one or more between each two staples. One of the wires *a* may be bent or turned at both ends after it is inserted in the staples, if desired, to prevent it from coming out; or both may be bent at one end only, so that they may be readily removed from the staples when desired. I prefer that one of the wires should be bent at both ends and remain in the staples permanently, and that one end only of the other wire should be bent, so that it can be easily removed from the staples when desired. The natural weight of the wires *a*, as well as the spring of the needles *c*, operates to cause a certain amount of friction between the needles and the wires *a*, and this friction is an important element in keeping the needles in place in the machine.

During the operation of plaiting, the ends of the needles are inserted under the wire which remains in place permanently, and the other ends of the needles are placed in their respective positions between the staples on the opposite edge of the board, and, after the work has progressed as far as desirable, the wire *a*, which has previously been drawn back or out the desired distance, is then pushed in farther, holding securely the needles which have already been inserted in place, while additional ones are inserted. Of course, when the work is done, one of the wires *a* being drawn out, if the board is tilted up edgewise the needles and work will drop out, or may be easily removed.

Any one skilled in the art, or even those comparatively unskilled, may easily operate the needles or use the device by laying the strip of cloth to be plaited upon the board between the two rows of staples, inserting the two wires *a*, and then placing the needles *c* across the board, over or under the cloth, as the case may be, and their ends under the wires and between the staples, as shown clearly in the drawing.

The reverse side of the board is provided with four strips, D, properly secured thereto in the form of a square, having a recess between and inside them, to one of which is hinged a thin cover, *b*, fastened at its opposite edge or other convenient place by a pin or other suitable means, and in the recess or receptacle so formed the bars or needles *c* may be kept when not in use.

I am aware that flat bars or needles have heretofore been used in connection with a series of pins on each side the board to hold them in place; but I am not aware that a series of flat bars or needles have ever been used in combination with a board provided with a series of

staples and wires inserted therein to hold the needles down to the board, as hereinbefore described.

It is evident that the needles may be of wire of equal diameter throughout instead of flat; but as the flat needles are much more rigid or stiff in the direction of their width, and make a much better plait, I prefer to have them flat, as shown.

Having, therefore, described my invention, what I claim as new is—

1. In a plaiting-machine consisting of the board A, series of staples *e*, arranged in two rows thereon, and needles *c*, the wires *a a*, adapted to operate substantially as and for the purpose set forth.

2. The board A, provided with the two rows of staples *e*, the wires *a*, the receptacle E, and its cover *b*, substantially as and for the purpose specified.

MILTON BRADLEY.

Witnesses:
T. A. CURTIS,
DEXTER SMITH.