

J. G. MAIRS.
PLAITING-MACHINE.

No. 175,571.

Patented April 4, 1876.

Fig. 1.

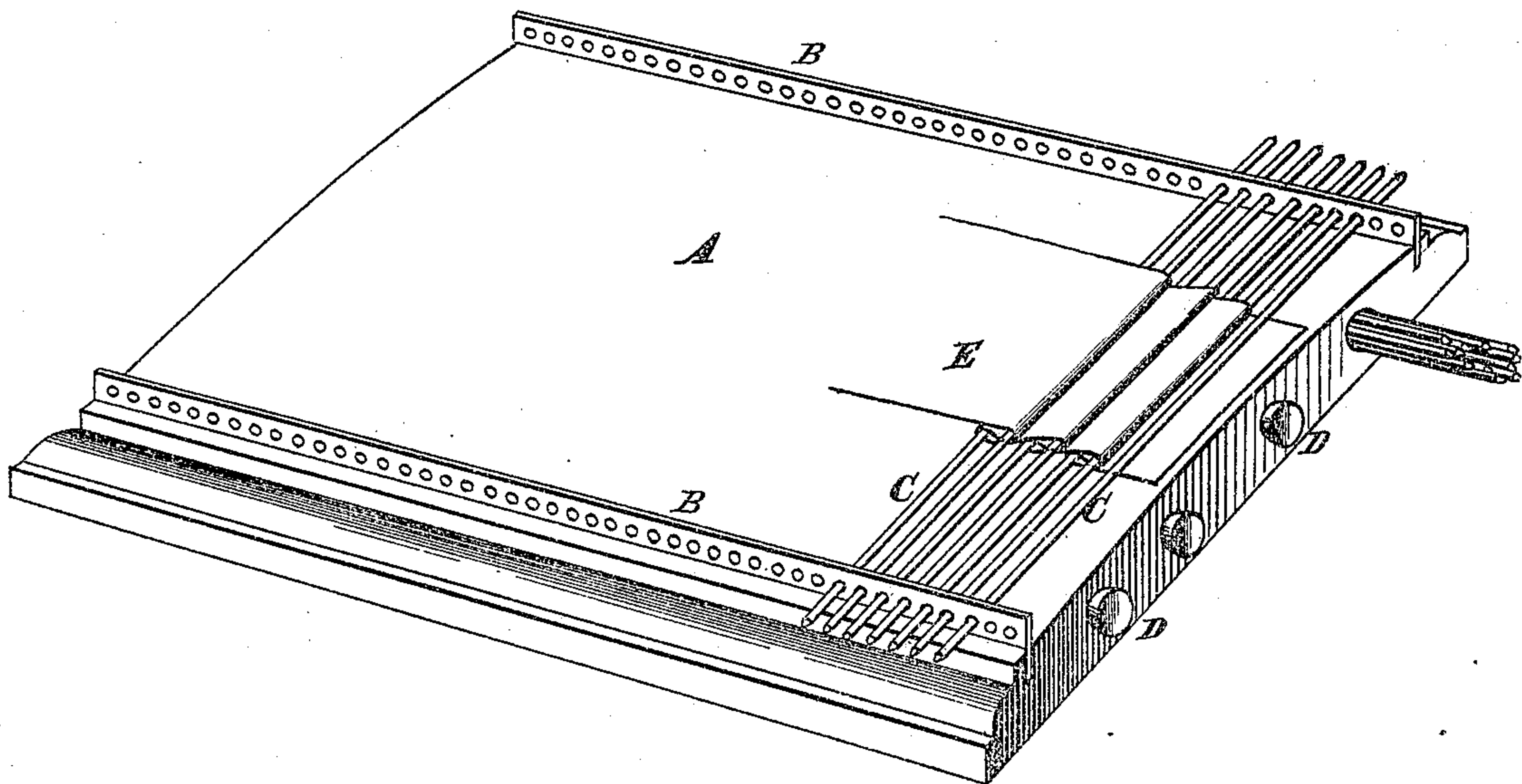
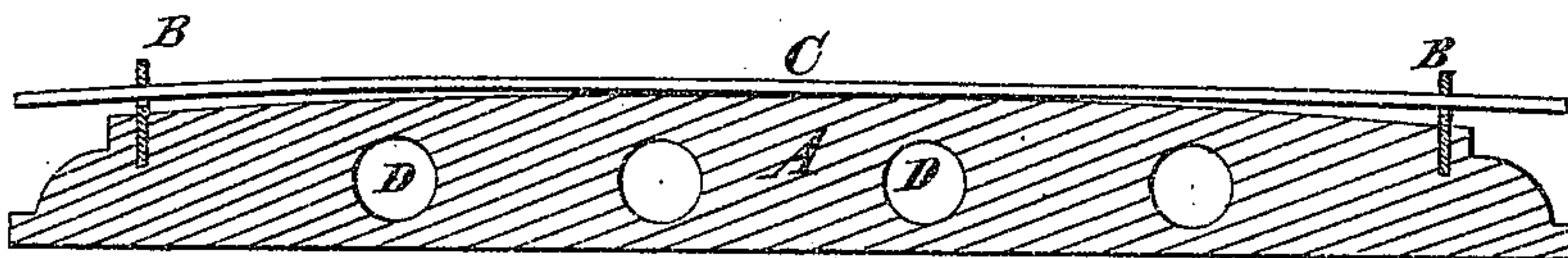


Fig. 2.



Witnesses:
A. Ruppert.
A. C. Cassell

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UNITED STATES PATENT OFFICE.

JOHN G. MAIRS, OF LANSINGBURG, NEW YORK.

IMPROVEMENT IN PLAITING-MACHINES.

Specification forming part of Letters Patent No. **175,571**, dated April 4, 1876; application filed March 9, 1876.

To all whom it may concern:

Be it known that I, JOHN G. MAIRS, of Lansingburg, in the county of Rensselaer and State of New York, have invented a new and useful Improvement in Plaiting-Machines, of which the following is a specification:

My invention relates to that well-known class of machines in which the making of plaits is facilitated by the use of a frame with hooks or holes on each side to receive the ends of wires or needles, around which the cloth is wound to form the proper plaits; and my improvement consists in passing the needles over a pad, cleat, or other raised surface in the middle of the frame, which will require them to be bent in order to be engaged with the hooks or lids, and thus, by their tension and friction, hold themselves in place. Also in forming the frame with sockets to receive the needles when not in use, and keep them with the frame until they are needed.

In the annexed drawings, making part of this specification, Figure 1 is a perspective view of the machine, and Fig. 2 is a transverse section of the same.

The same letters are employed in both figures in the indication of identical parts.

A is the frame consisting in this case of a single piece of board, the upper surface of which is convex on its cross-section. Instead of making the frame convex a pad or cleat may be placed in the middle to raise the middle part of the needle; and any device which gives the curve to the needles causes them to bind on the middle and at the ends where they are secured, I regard as the mere equiv-

alent of the convex frame. B B are plates of metal with rows of equidistant holes in each placed opposite one another to receive the ends of the needles. Instead of holes hooks may be employed similarly placed. The needles C are steel wires, such as are used for knitting, having sufficient elasticity when bent to bear on the holes or hooks, and create friction enough to keep themselves in place. Holes D are bored in the end of the board or frame to receive the needles when unemployed, where they are secured by stoppers. Instead of having the needle-cases in the frame they may be made of metal and attached at the sides of the frame.

The cloth C is plaited by passing it around alternate needles, which are inserted in the usual manner, and held in place by the friction caused by their tension.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The bed or frame of a plaiting-machine, raised in the middle to give convexity to the needles and hold them in the holes or hooks by the friction caused by their tension, substantially as set forth.

2. In combination with the frame of a plaiting-machine, the needle-cases D, constructed substantially as set forth.

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

JOHN G. MAIRS.

Witnesses:

EDWARD R. TYLER,
D. P. HOLLOWAY.