

(No Model.)

J. HUTCHISON.

STEAMING APPARATUS FOR TAPESTRY YARN.

No. 442,483.

Patented Dec. 9, 1890.

Fig. 1.

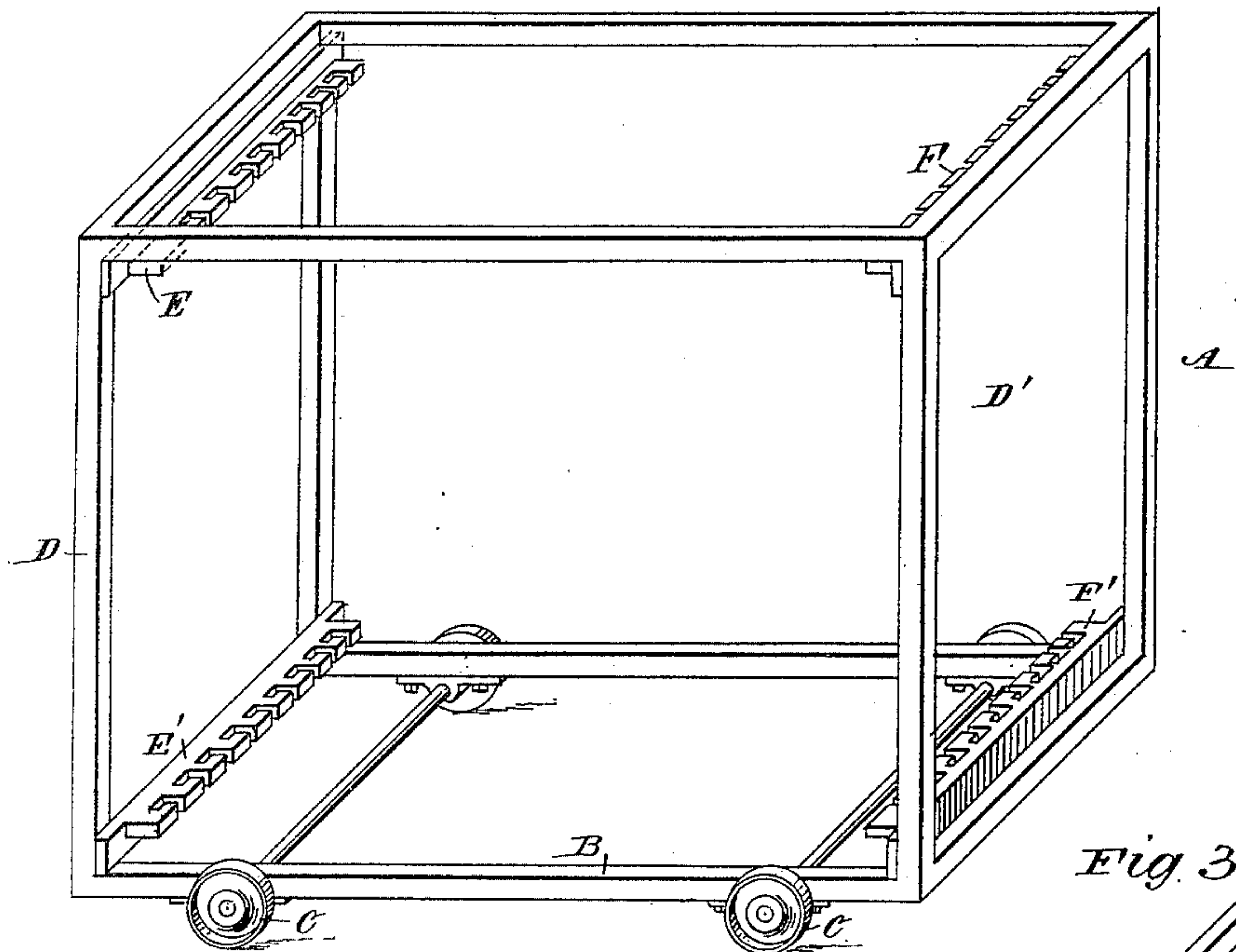
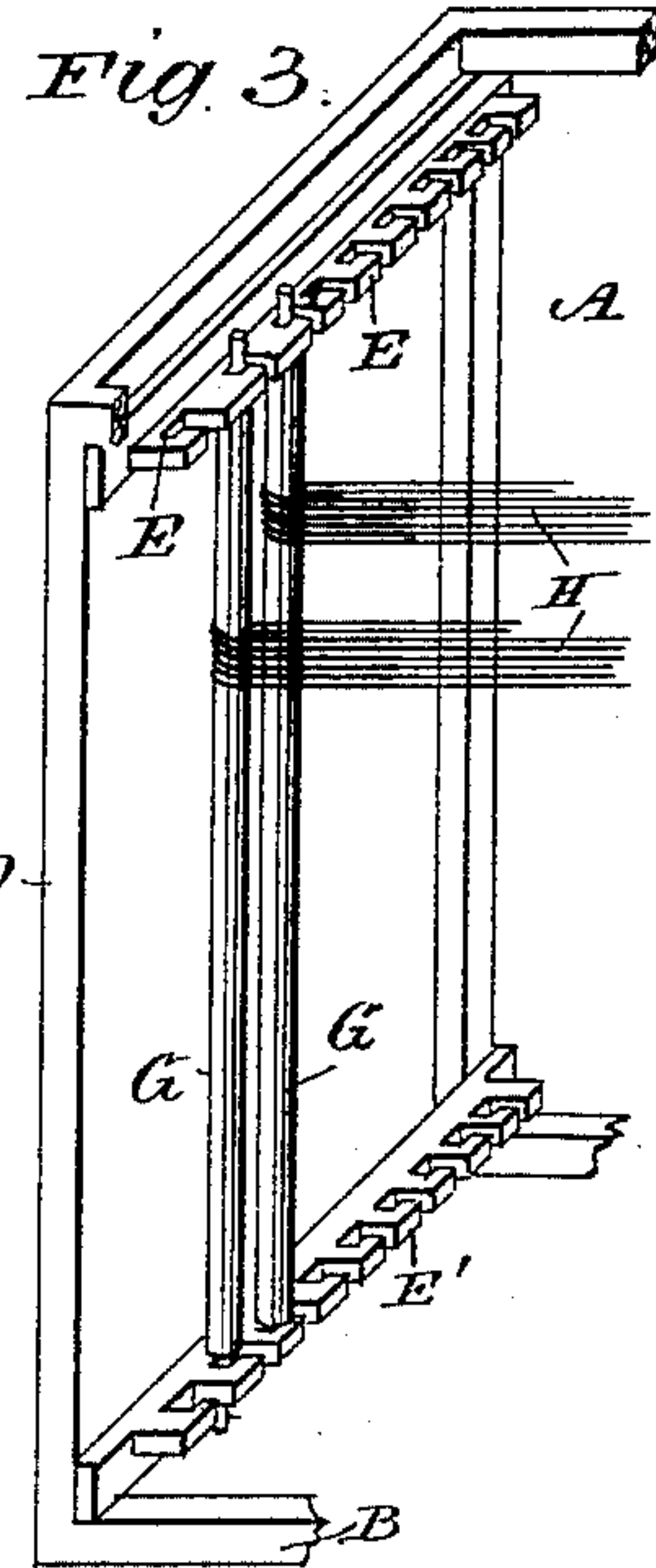
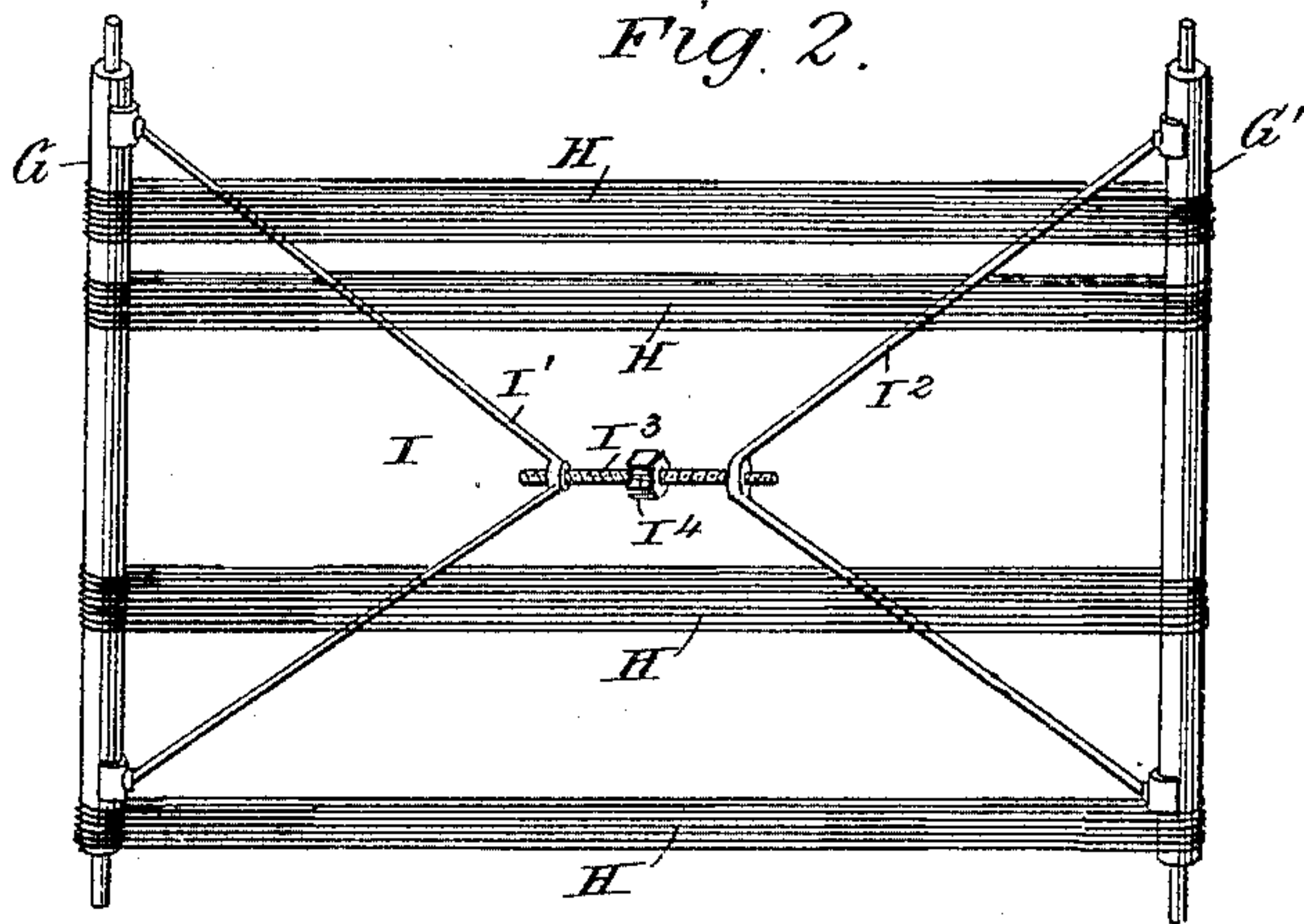


Fig. 2.



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STEAMING APPARATUS FOR TAPESTRY-YARN.

SPECIFICATION forming part of Letters Patent No. 442,483, dated December 9, 1890.

Application filed March 28, 1890. Serial No. 345,711. (No model.)

To all whom it may concern:

Be it known that I, JAMES HUTCHISON, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Steaming Apparatus for Tapestry-Yarns, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved apparatus for conveniently supporting tapestry-yarns during the process of steaming to prevent the colors from running into each other.

The invention consists of a frame and sets of yarn-sticks holding the hanks and set vertically in the said frame.

The invention also consists in certain parts and details and combinations of the same, as will be described hereinafter, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the frame. Fig. 2 is a perspective view of one set of yarn-sticks, and Fig. 3 is a perspective view of one end of the apparatus with the yarn-sticks in place.

In steaming tapestry-yarns as heretofore practiced the hanks, after leaving the printing-drums, were placed into net-frames and set into the steaming apparatus. It frequently happened that the several colors of the hanks ran into each other during the process of steaming, so that the yarns when woven into a carpet produced irregular patterns or figures and gave the carpet a blotched appearance. To avoid this is the object of the invention presently to be described.

The improved steaming apparatus is provided with a suitably-constructed open frame A, having an open bottom B, mounted on wheels C, and also provided with connected ends D and D', set vertically, and each provided with two notched bars E E' and F F', respectively, of which the bars E and E' are located one above the other, and the bars F and F' are arranged in a similar manner, as is plainly shown in Fig. 1. In corresponding notches in the bars E and E' is set a yarn-stick G, and a similar yarn-stick G' is adapted

to be set in notches in the bars F and F', said notches being located directly opposite the respective notches in the bars E and E'. The two sticks G and G' form one set, and are connected with each other temporarily by a device I, consisting of two V-shaped rods I' and I², adapted to abut at their outer ends on the insides of the said sticks G and G', as is plainly shown in Fig. 2. The pointed middle parts of the rods I' and I² are connected with each other by a right and left handed screw I³, having a block I⁴ in its middle for conveniently turning the said screw so as to move the rods I' and I² farther apart, in order to stretch the hanks II placed on the two sticks G and G', as illustrated in Fig. 2. When the two sticks G and G' of one set support a series of hanks II and are pressed apart by the device I, as shown in Fig. 2, then the entire set is placed in corresponding notches in the sets of bars E E' and F F', so that the two sticks G and G' stand vertically in the frame A. Any number of such sets may be placed in the frame, according to its capacity, and after this has been accomplished the block I⁴ of each set is turned in an opposite direction, so as to disconnect the rods I' and I² from the sticks G and G', after which the device I is lifted from between the two sticks, the hanks II are laid aside, and the frame A is then moved, with its contents, into the usual steaming apparatus.

It is understood that on the two sticks G and G' of each set of sticks are placed the several hanks colored on the printing-drum, the several hanks being arranged on the two sticks so that the corresponding colors of the hanks are one above the other, as indicated in Fig. 2. Thus any number of sets of sticks containing hanks from different printing-drums may be placed simultaneously in the frame A'; but the hanks on each set of sticks have corresponding colors arranged one above the other, so that in case the colors commence to run while undergoing the process of steaming the said colors run vertically, owing to the laws of gravity, and come in contact only with the corresponding color of the next following hank, and do not run into any other colors so as to change or spoil the same.

It is understood that the device I, after the filled set of sticks is set onto the frame A, may

be removed, as previously described, or left therein, if desired, it being preferred, however, to remove it, as the sticks G and G' of each set are securely held in place in the L-shaped notches of the several sets of bars E E' and F F'.

Other suitable means may be employed to retain the sticks G and G' of each set in place in the respective set of bars E E' and F F', and other means may be employed to temporarily hold the sticks G and G' of each set apart while placing thereon the hanks and setting the filled sticks into the frame.

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

1. In a steaming apparatus for tapestry-yarns, the combination, with a frame, of sets of yarn-sticks adapted to hold the hanks and set vertically into the said frame, substantially as shown and described.

2. In a steaming apparatus for tapestry-yarns, two yarn-sticks held in a vertical position parallel to each other and adapted to support the hanks of yarn, substantially as shown and described.

3. In a steaming apparatus for tapestry-yarns, the combination, with two yarn-sticks

placed parallel to each other and in a vertical position, of a separating device for holding the said sticks in the said position, substantially as shown and described.

4. In a steaming apparatus for tapestry-yarns, the combination, with a wheeled frame provided with sets of notched bars, of sets of yarn-sticks, each set containing two sticks arranged parallel to each other and set in a vertical position in the said frame to support the hanks of yarn, substantially as shown and described.

5. In a steaming apparatus for tapestry-yarns, the combination, with a wheeled frame provided with sets of notched bars, of sets of yarn-sticks, each set containing two sticks arranged parallel to each other and set in a vertical position in the said frame to support the hanks of yarn, and a spreading device adapted to pass between the two sticks of each set to hold the said sticks temporarily apart while setting the same in the said frame, substantially as shown and described.

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