

(No Model.)

W. GREENHALGH.

TUFT FRAME OR CARRIAGE FOR LOOMS FOR WEAVING TUFTED FABRICS.

No. 264,281.

Patented Sept. 12, 1882.

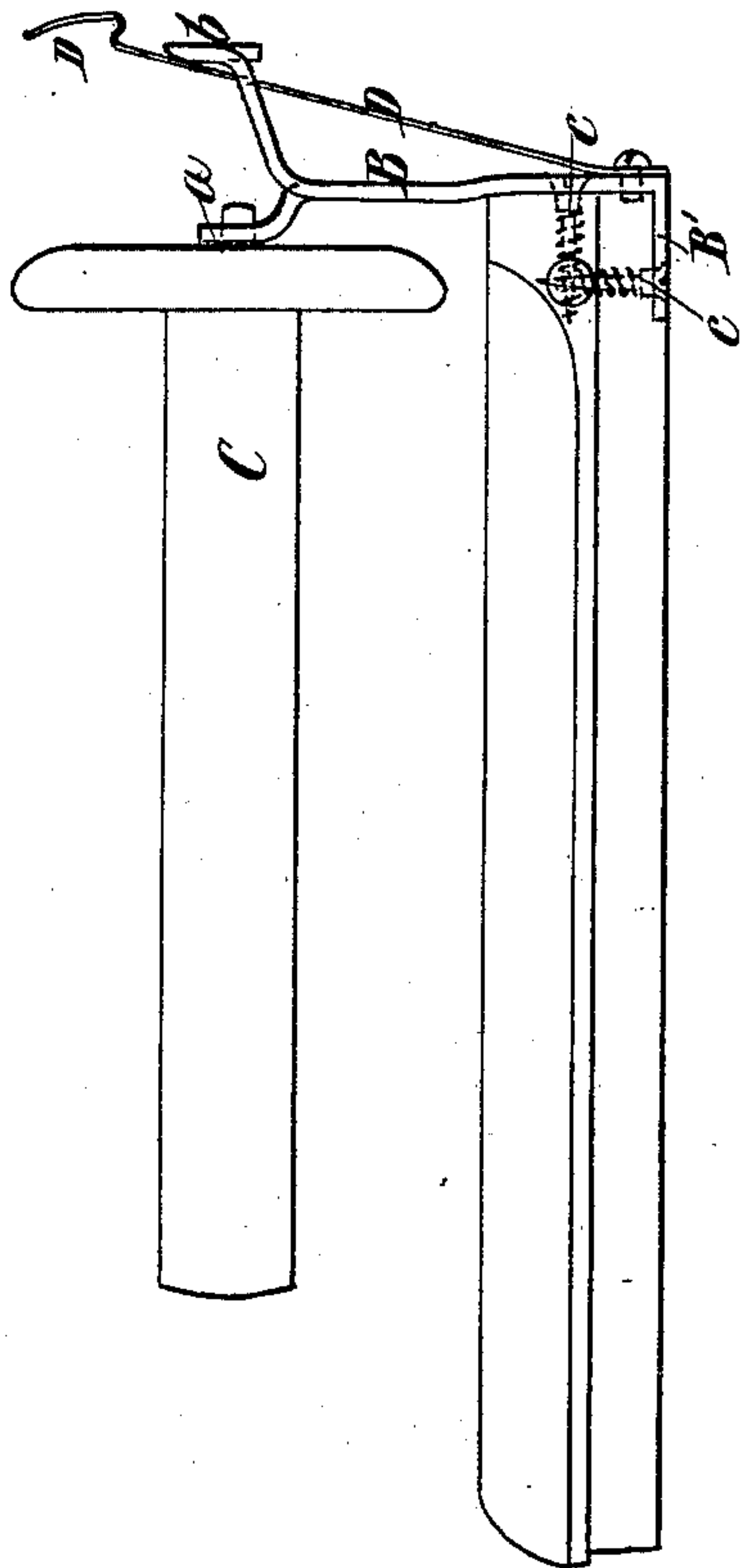
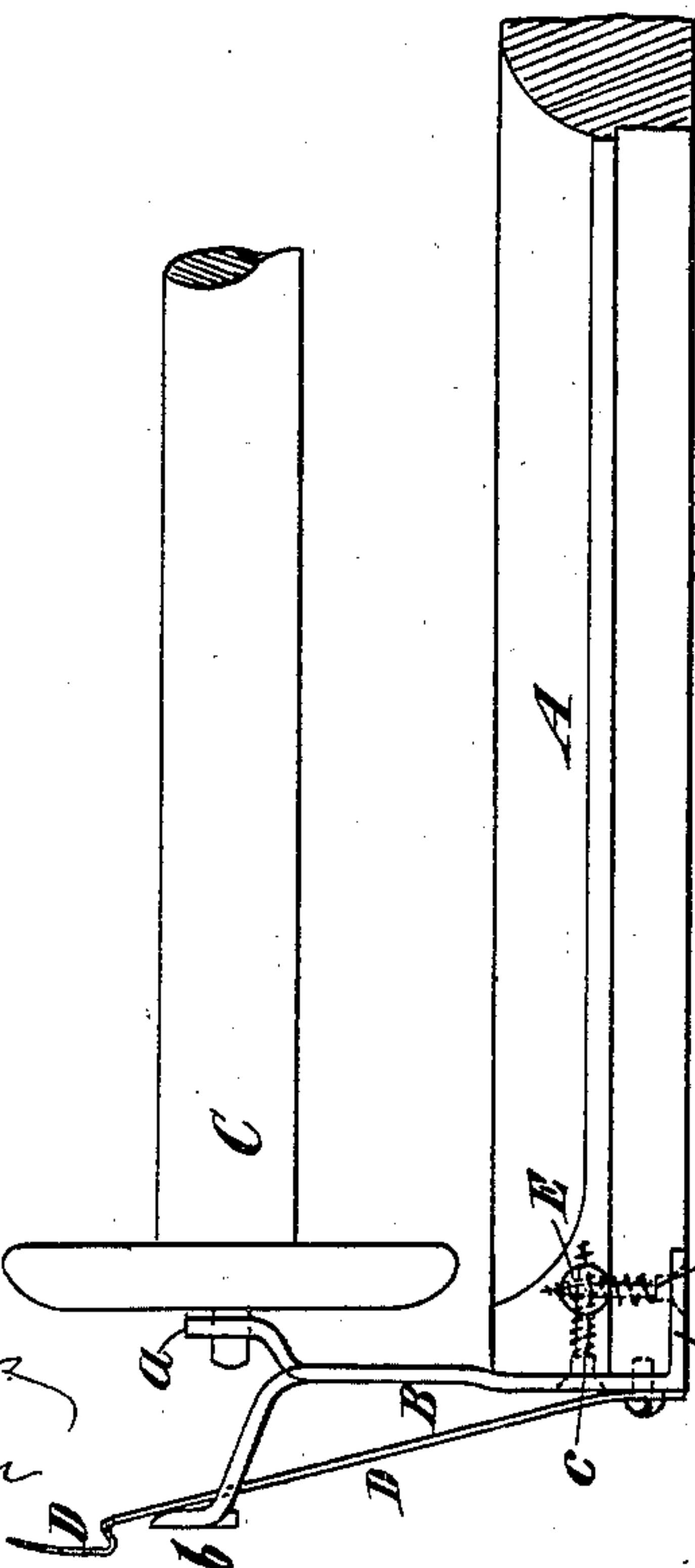


Fig. 1.



Witnesses

Ed. Moran

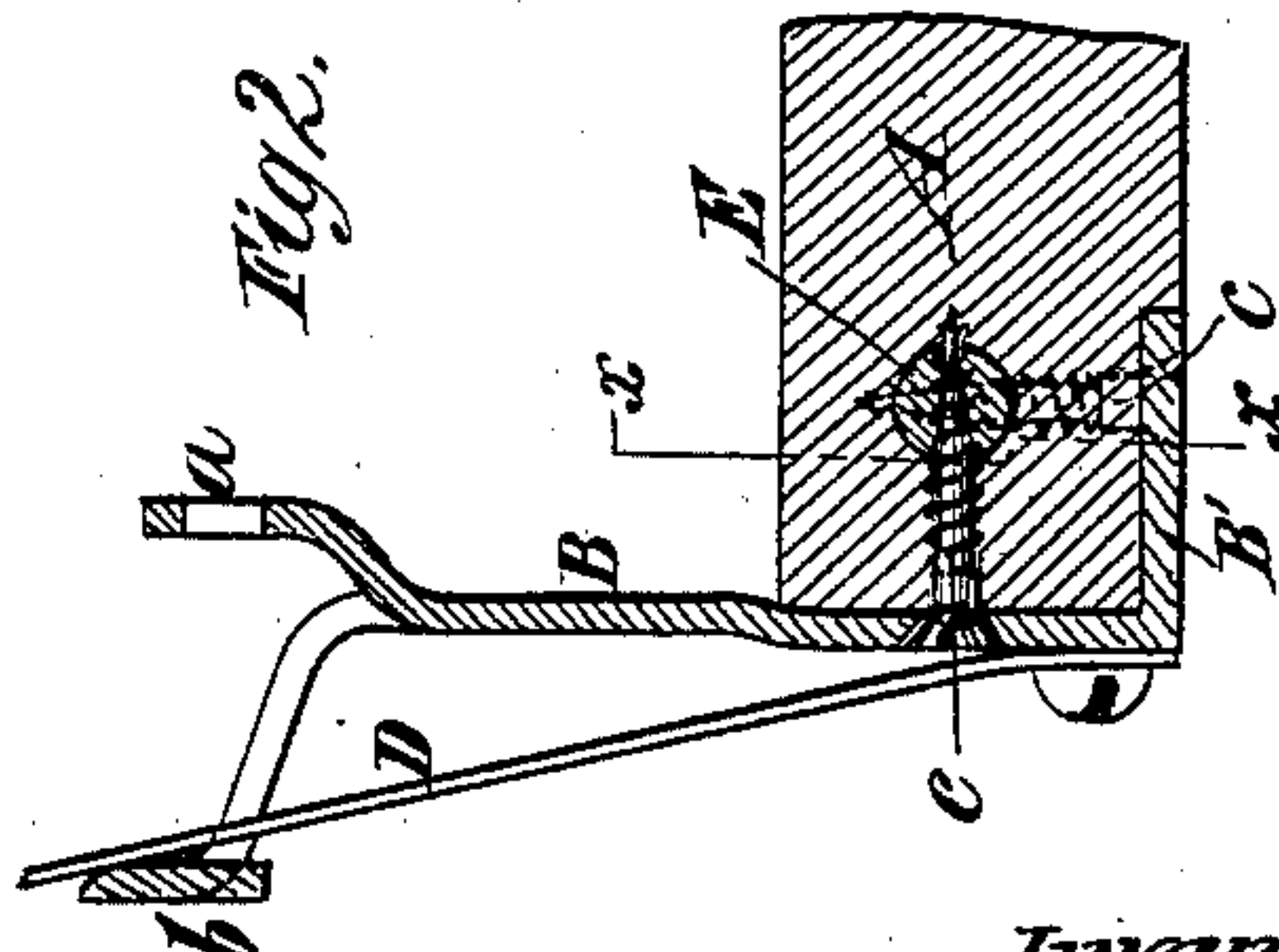


Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM GREENHALGH, OF YONKERS, NEW YORK.

TUFT FRAME OR CARRIAGE FOR LOOMS FOR WEAVING TUFTED FABRICS.

SPECIFICATION forming part of Letters Patent No. 264,281, dated September 12, 1882.

Application filed February 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GREENHALGH, of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Tuft Frames or Carriages for Looms for Weaving Tufted Fabrics, of which the following is a specification.

In looms like that forming the subject-matter of Letters Patent of the United States No. 186,374, granted January 16, 1877, to A. Smith and H. Skinner, and which are used for weaving "Moquette" carpets and similar tufted fabrics, the tuft-yarns are supplied from a series of spools mounted in frames or carriages, which are carried by carrying-chains, and thereby presented successively or in proper order to transferring-arms, which place the spools and their yarns in proper relation relatively to the warp. The frames or carriages of the tuft-spools are ordinarily composed each of a single bar or piece of wood, provided at the two ends with metal clutches, whereby the frame or carriage is attached to the chains, and which are secured thereto by means of ordinary wood-screws. Pine or other light and soft wood is commonly used for these frames or carriages, and by the very frequent removal of the frames or carriages from and their replacement on their carrying-chains the screws lose their hold on the wood and the clutches become loose.

The object of my invention is to enable the clutches to be attached to the wood bars of the frames or carriages in a firmer and more durable manner; and to this end my invention consists in the combination, with the wood bar, its clutches or clutch pieces, and the screws which secure them, of plugs of lead or other soft metal inserted in the said bar and receiving the ends of the screws within them, whereby the screws are prevented from easily working loose, as they do when they have a hold only in the wood, and if they do work loose can be readily tightened by compressing the lead or other soft-metal plug upon them by a blow or otherwise.

In the accompanying drawings, Figure 1 represents a side view of a frame or carriage

and its spool. Fig. 2 represents a longitudinal section of the end portion of the frame or carriage upon a larger scale; and Fig. 3 represents a transverse section on the dotted line *xx*, Fig. 2.

Similar letters of reference designate corresponding parts in all the figures.

A designates a bar or piece of wood, commonly pine or other light and soft wood; and B designates metal angle-pieces, which are secured to the ends thereof, and have flanges B' bearing upon the under side. Each angle-piece has two ears, *a b*, and the ears *a* form the bearings for the journals of the spool C, on which the tuft-yarn is wound.

D designates springs, which are secured to the pieces B, and which spring outward toward the ears *b*, and, when the frame or carriage is carried by the transferring-arms to its chains, the springs D are deflected toward the ears *a* and grasp the chains tightly between themselves and the ears *b* and hold the frame or carriage on the chain until it is again detached by the transferring-arms.

E designates plugs inserted through the bar A, one near each end thereof, and the angle-pieces are each secured to the bar by one or more screws, *c*, which enter the plug E. In this example of my invention two screws are employed for each angle-piece, one being inserted through the end of the bar A and the other through the flange B' transversely through the bar. The screws *c* which I use are ordinary gimlet-pointed wood-screws, and the plug E may be made of lead or other soft metal in which the screws can obtain a firm and enduring hold. An awl may be employed in making holes in the bars A for the reception of the screws. I make the plugs E of lead or other soft metal, because the screws *c* will have a very strong hold in the plugs, and will not be liable to get loose, and, in case the screws do become loose, they may be tightened by simply hammering the plugs on the end, and without removing them from the bar A, so as to contract the screw-holes and close them upon the screws.

As the screws *c* do not depend for their hold on the wood of the bar A, it will be seen that

I provide for securing the angle or clutch pieces to the bar in a very secure manner.

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

5 The combination of the plugs E, of lead or other soft metal, and the screws c with the wood bar A and angle or clutch pieces B, sub-

stantially as and for the purpose herein described.

WILLIAM GREENHALGH.

Witnesses:

FREDK. HAYNES,

ED. MORAN.