

(No Model.)

O. W. SCHAUM.

SPOOL HOLDING FRAME FOR LOOMS.

No. 412,421.

Patented Oct. 8, 1889.

Fig. 1.

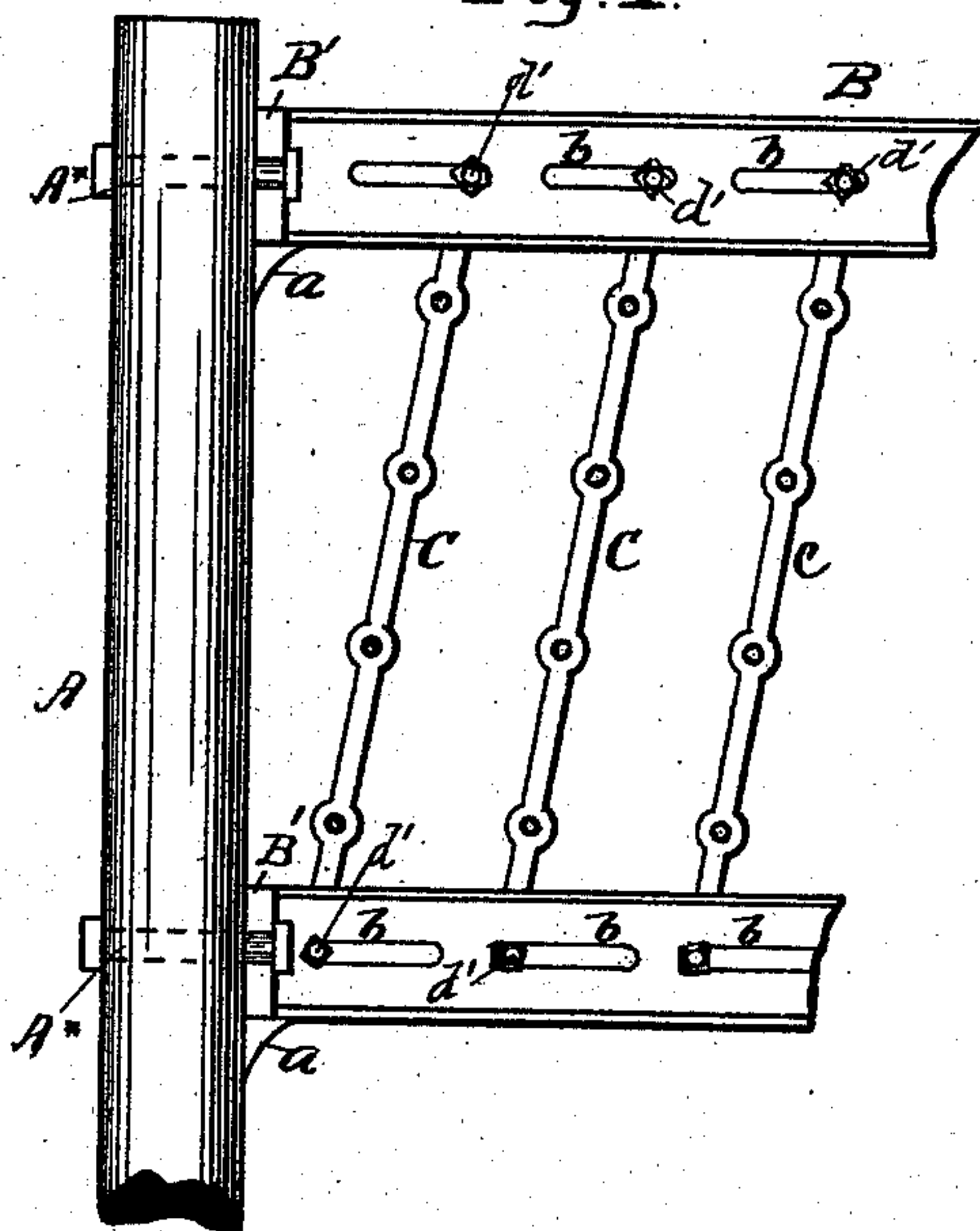


Fig. 2.

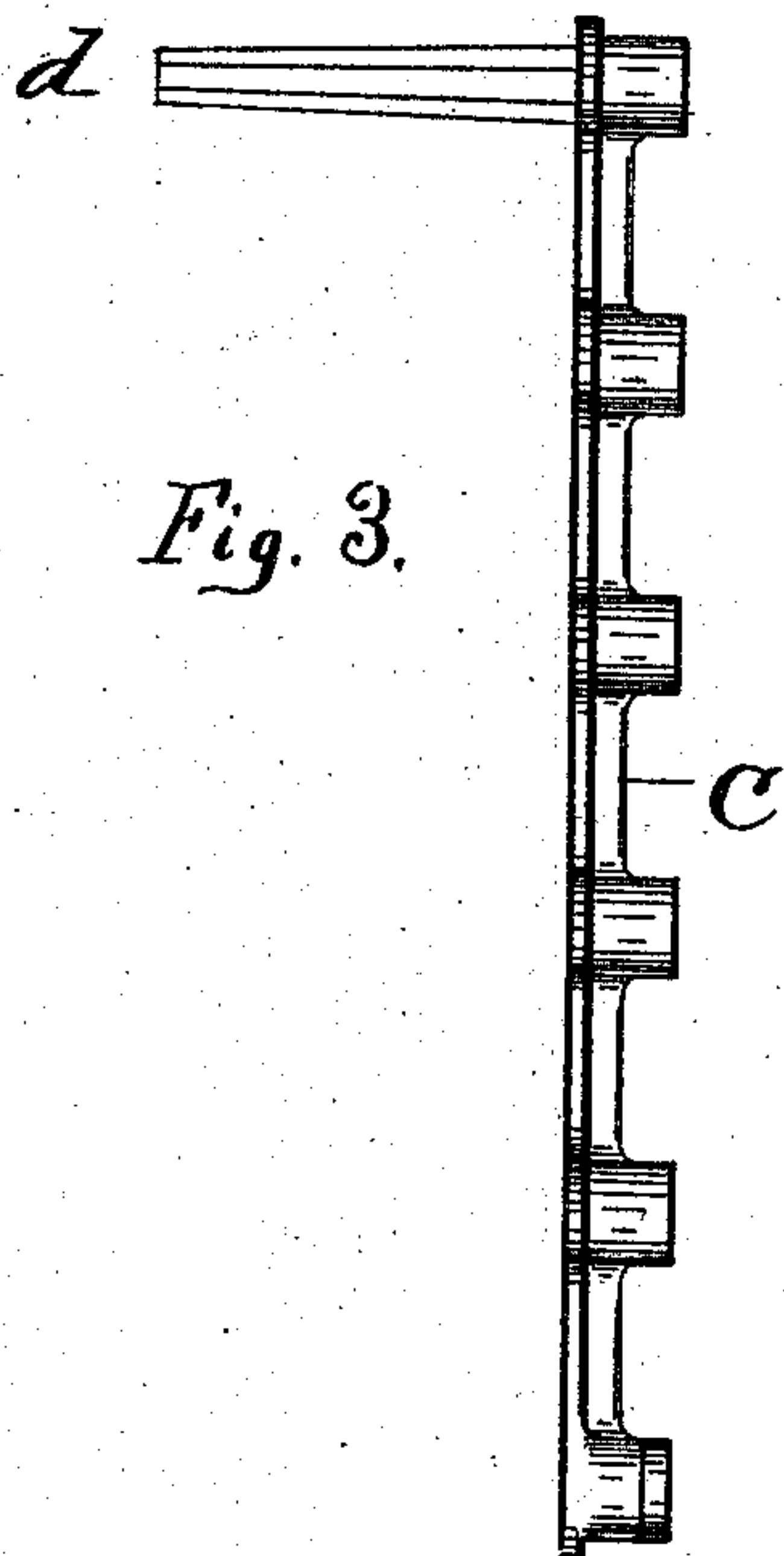
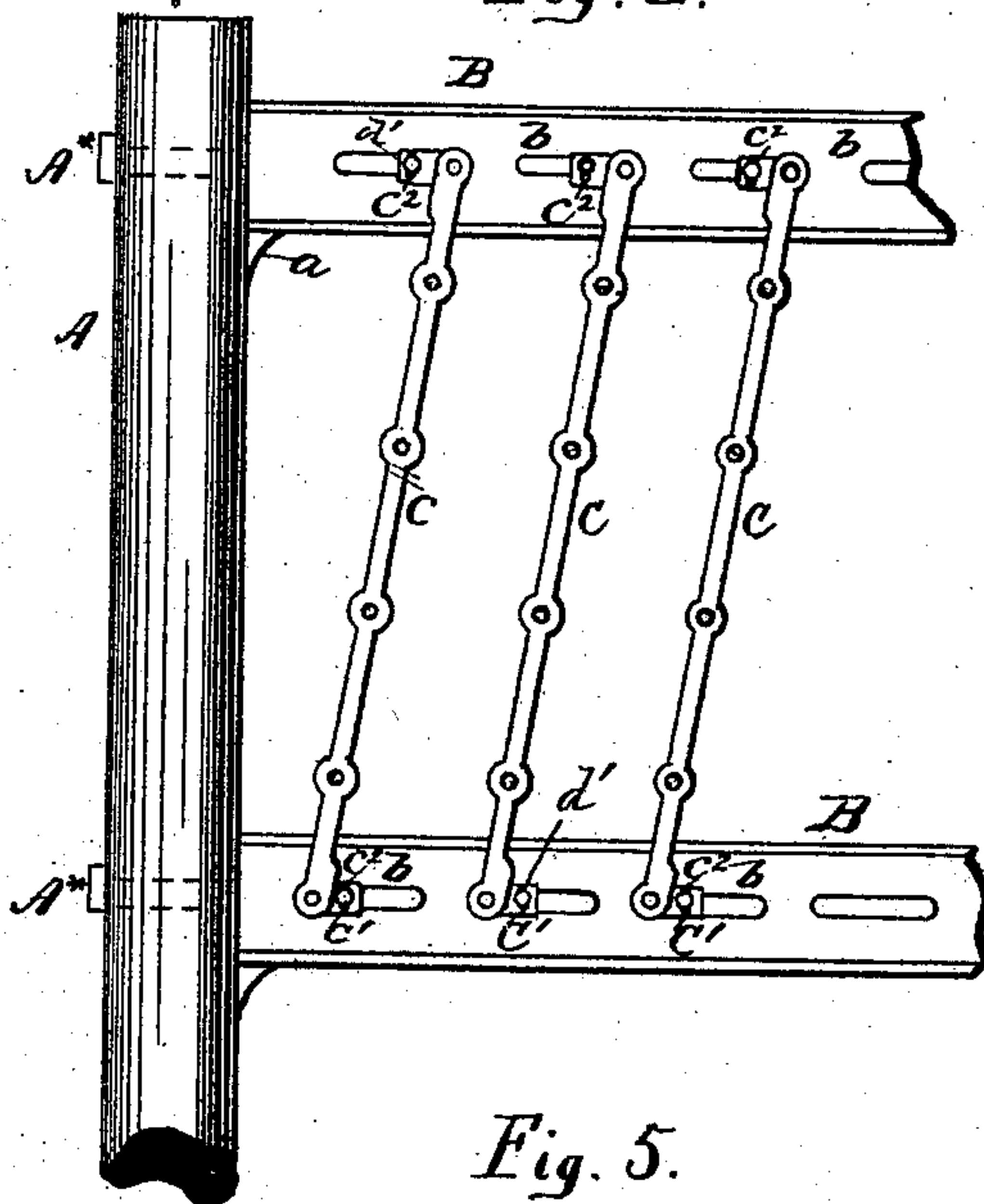


Fig. 5.

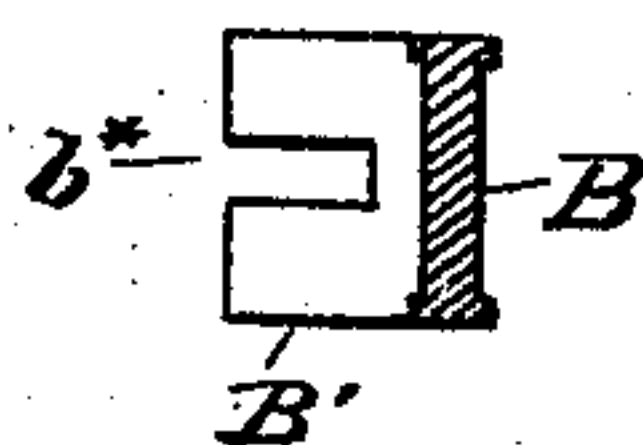
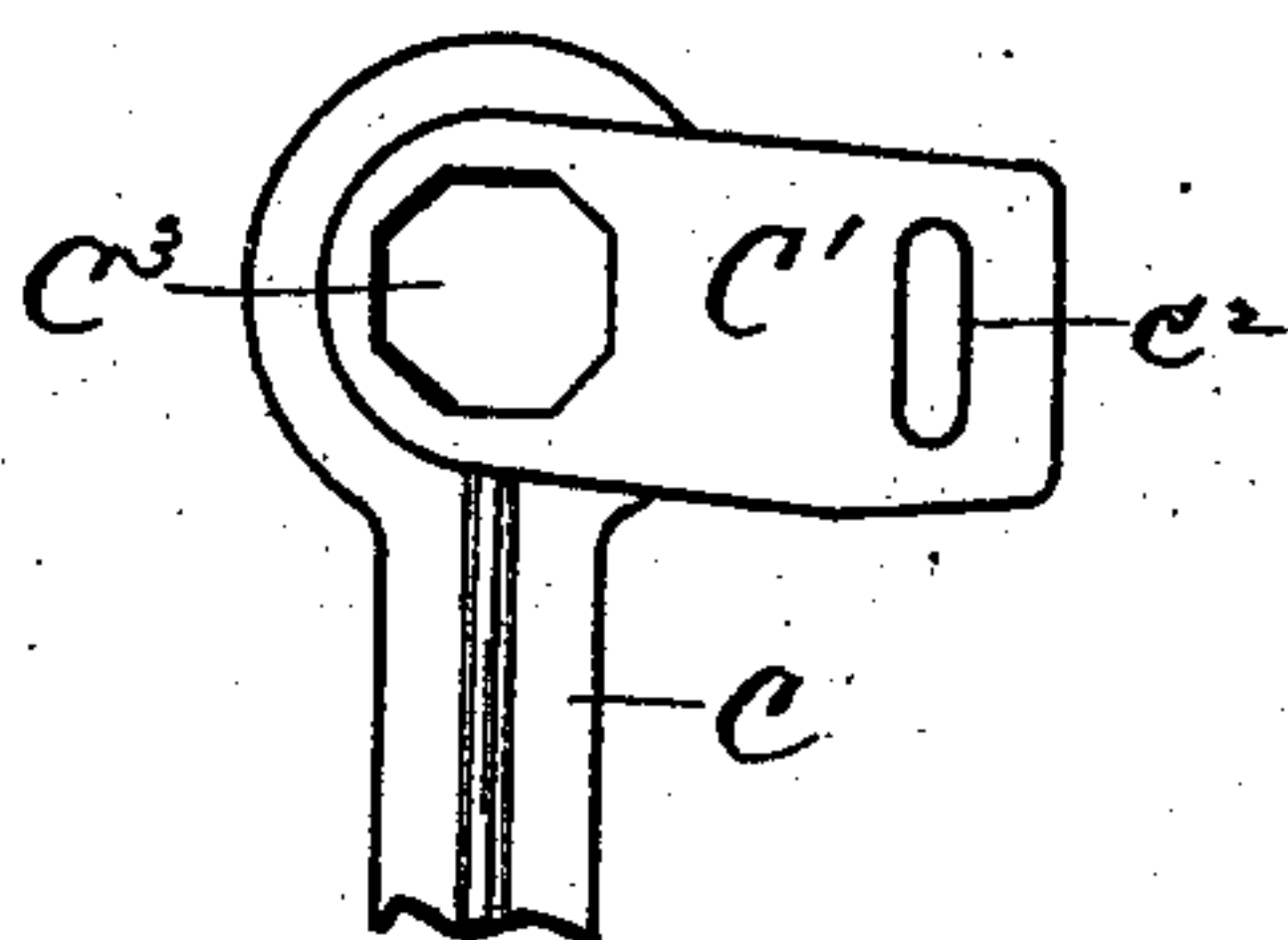


Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

OTTO W. SCHAUM, OF PHILADELPHIA, PENNSYLVANIA.

## SPOOL-HOLDING FRAME FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 412,421, dated October 8, 1889.

Application filed March 28, 1889. Serial No. 305,050. (No model.)

*To all whom it may concern:*

Be it known that I, OTTO W. SCHAUM, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Spool-Holding Frames for Looms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to frames for holding spools containing the yarn or other material to be woven on Jacquard and other looms, and has for its object the provision of a frame which overcomes the objectionable feature of bulkiness of parts and consequent interception of light, liability of the spool-holding pins to rotate in their sockets, and rigidity of attachment of the vertical stringers in which the spool-holding pins are supported, and enables the operator to slant the spool-holding mechanism in two directions at the same time. I form both the upper and lower longitudinal bars of the frame and the vertical stringers of metal, so that they can be made slender in structure and consequently afford a frame presenting a minimum obstruction to light, and at the same time giving adequate strength and durability to the parts. The longitudinal bars are bent at right angles at the ends, and the bent portions are slotted to receive bolts, which fix them to the posts. In the uprights or stringers are formed non-circular—preferably octagonal—openings or sockets, in which the spool-supporting pins are placed and held from the turning which is so common with the common round pin and socket and causes delay and trouble. The attachment between the horizontal bars and the uprights is made in such a manner as to enable the angle or inclination of the uprights to be adjusted readily and without danger of breakage. For this purpose elongated openings or slots are made in the stringers or uprights, as well as in the hori-

zontal bars, whereby the stringers can be shifted as desired, or the longitudinal bars can be moved longitudinally with respect to each other, so as to change the inclination of all the uprights at the same time without jar or strain to any of the parts.

The following detailed description will more fully disclose the nature and purpose of the said invention and the manner of carrying the same into effect:

The accompanying drawings illustrate what I consider the best means for carrying my invention into practice.

Figure 1 is a front elevation of a portion of the main supporting-frame of a Jacquard loom, showing part of the metal spool-supporting frame which forms the subject-matter of this application. Fig. 2 is a rear elevation of part of the spool-supporting frame. Fig. 3 is an elevation of one of the stringers or uprights removed. Fig. 4 is an elevation of one end of a stringer. Fig. 5 shows a section of one of the longitudinal bars, taken near and looking toward the end to show the bent slotted portion.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is one of the supporting-posts.

B B are the longitudinal members or bars of the spool-supporting frame.

C C, &c., are the uprights or stringers.

The parts B and C are formed of metal, so that they may be made slender and still have ample strength. The reduction in bulk not only makes a more compact and neater structure, but also presents a very largely-diminished obstruction of the light, which is a desirable feature. The bars B B are provided with bent ends B' B', which are slotted, as shown at  $b^* b^*$ , to receive bolts A\* A\*, by which the bars are adjustably clamped to the posts A. Studs or supports  $a a$  may be provided on the posts, on which the ends of bars A rest. In the longitudinal bars B slots  $b b$  are formed. Uprights or stringers C are provided with ears C' C' on their ends, which are slotted, as shown at C<sup>2</sup> C<sup>2</sup>, to take the set-screws or bolts  $d' d'$  and permit the angle or inclination of these uprights to be changed as desired without strain



to the parts. The provision of the ears C' C' permits a spool-supporting pin to be placed in the extreme ends of the stringers and thus economizes space. The stringers are provided with non-circular, preferably octagonal, openings or sockets C<sup>3</sup> C<sup>3</sup>, &c., which receive the similarly-shaped ends of the spool-supporting pins or pegs *d* and hold them firmly against rotation.

It will be seen that with a frame constructed according to this invention there will be a minimum obstruction of light, a ready and easy adjustment of the angle or inclination of the uprights, so as to bring the depending threads on different vertical lines, and entire freedom from rotation of the spool-supporting pins, which rotation often occasions breakage of threads, delay, and trouble, and with the provision, for adjustment of the longitudinal bars the stringers may be inclined in two directions at the same time.

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

1. The combination, with the bars provided with horizontal slots and set-screws or bolts, of uprights or stringers having slots, as set forth.

2. The combination, with the bars provided with horizontal slots and set-screws or bolts, of the uprights or stringers having ears C' C' on their ends and slots C<sup>2</sup> C<sup>2</sup> in the ears, into which the set-screws or bolts take, as set forth.

3. A spool-holding frame for Jacquard looms, having suitable supports, and bolts in said supports, longitudinal bars having bent slotted ends set over the aforesaid bolts and longitudinal slots in the body thereof, and stringers or uprights having slotted ends and bolts for attaching them to the longitudinal bars, as set forth.

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

OTTO W. SCHAUUM.

Witnesses:

THOMAS D. MOWLDS,  
CHARLES E. LEX, Jr.