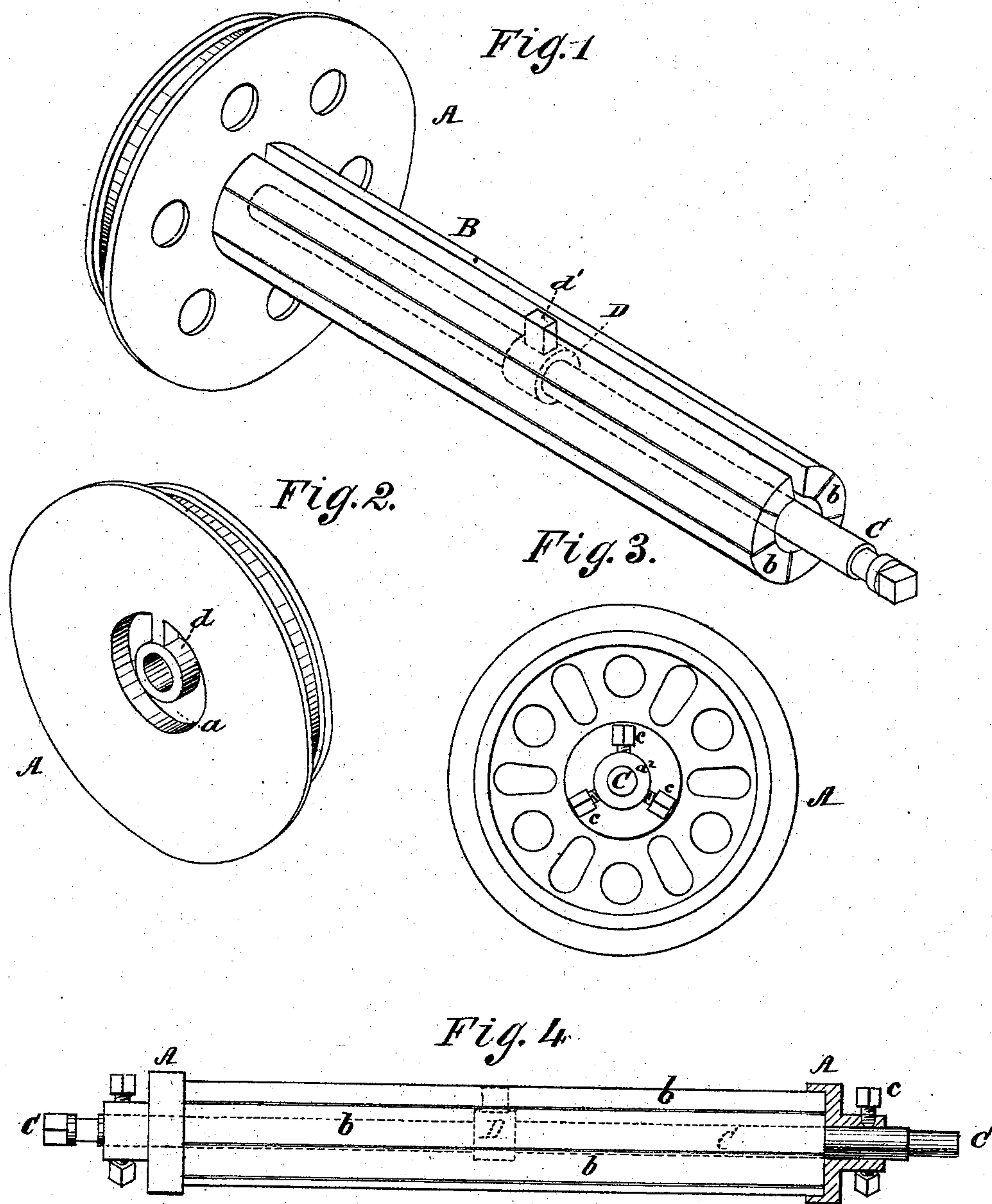


G. L. GARSED.

Beams and Rollers for Looms.

No. 137,672.

Patented April 8, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE L. GARSED, OF WILMINGTON, DELAWARE.

IMPROVEMENT IN BEAMS AND ROLLERS FOR LOOMS.

Specification forming part of Letters Patent No. 137,672, dated April 8, 1873; application filed March 12, 1873.

To all whom it may concern:

Be it known that I, GEORGE LAWRENCE GARSED, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and useful Improvement in the Construction of the Yarn-Beams, Cloth-Beams, and Whip-Rollers of Looms; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification.

The object of the invention is to remedy the tendency in the wooden yarn and cloth beams, and the whip-rollers of looms, to shrink and become warped at their junction with the heads or pulleys, and thus to allow the heads to lean at an oblique angle thereto. This has the effect to cause the yarn to be wound unevenly on the yarn-beam, and to create, when unwound, an unevenness of tension, which produces a want of uniformity in the cloth.

Heretofore these wooden beams have received the heads directly on their ends, and been secured by screws or bolts, which passed through an annular flange projecting from their sides; or they have been driven on and made fast by some equivalent means. The journals have been generally driven into the ends of the beams or rollers. In passing through cloth-mills many of these pulleys may be observed leaning obliquely to the beams.

The ordinary mode of adjusting the heads when out of true position is to drive wedges between the head and the roll; but it only removes the difficulty partially and temporarily.

To remedy this defect I construct the beams and whip-rolls in a single piece or in curved sections. I construct the heads in a manner that will adapt them to receive the ends of the roll or of the sections, and hold them fixed in position independently of the shaft.

In the drawing, Figure 1 is a view of the sectional beam or roll and independent shaft attached to one of the heads. Fig. 2 is a view of the recess in the head which receives the ends of the sections. Fig. 3 is an elevation

of the inside of pulley. Fig. 4 is a view of the sections glued together or otherwise connected so as to form a whip-roll.

A A are the heads, having recesses *a a* and fixed dogs *d d*; B, the beam or roll, formed of sections *b*; and C, the independent shaft, about which the sections are fastened. The heads A A are placed over each end of the shaft and drawn toward each other until they receive the ends of sections *b* in their recesses *a a*, when they are clamped to shaft C by set-screws *c* passing through the fixed collars or hubs *a² a²*. D is a collar which surrounds shaft C, and is, at or near the middle, rigidly attached to it, having a projection, *d'*, that rises between two sections of the beam or roll, and serving the same purpose as the dogs *d* in the heads.

In case of the whip-roll, represented in Fig. 4, the heads or end caps A are of the same size as the roller, but in other respects are constructed like the heads, as shown in Figs. 1 and 2.

The sections *b* may be formed to rest longitudinally upon the shaft C along its whole length without departing from the principle of my invention, or they may be rigidly attached together, or the roll may be made in one tubular piece, the mode of application to the heads being essentially the same under all these modifications.

I do not confine my mode of putting together pulleys and shafts to the particular uses mentioned, but intend that the protection craved shall embrace all analogous uses for which my invention is adapted.

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

The shaft and its heads secured thereto, provided with recesses and with dogs to retain in position the beam or roll formed from one or more pieces, substantially as described.

GEORGE LAWRENCE GARSED.

Witnesses:

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