

UNITED STATES PATENT OFFICE.

ARCHIBALD NIMMO, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO THOMAS H. EARLEY, OF SAME PLACE.

WARP-BEAM FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 460,343, dated September 29, 1891.

Application filed October 22, 1890. Serial No. 368,922. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD NIMMO, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Warp-Beams for Looms, of which the following is a specification.

The object of my invention is to construct an adjustable warp-beam for a loom and to accommodate warps of different widths of fabric, as fully described hereinafter, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved warp-beam, showing a portion of the loom in dotted lines. Fig. 2 is a perspective view. Fig. 3 is an end view. Fig. 4 is a section on the line 1 2, Fig. 1. Fig. 5 is a section on the line 3 4, Fig. 1. Fig. 6 is a view of a modification.

A is the shaft of the beam, which is adapted to bearings in the usual manner, and secured to this shaft are two heads *a a*, to which is fixed the drum or spindle B, made, preferably, of wood. On this drum is wound the warp for the loom.

D D are the two flanges of the beam, the hubs of which are adapted to the shaft A and are adjustably secured thereto. The webs or spokes of these flanges pass through longitudinal slots *b* in each end of the spindle B, the slots *b* being of sufficient width to allow the webs to slide freely. Adapted to bearing in a bracket and the hub on each flange D is a set-screw *e*, bearing directly upon the shaft A, so as to lock the said flanges securely to the shaft, thus preventing injury to the wooden spindle B. Each flange is grooved at *f f* for the reception of the tension-band. It

will thus be seen that the hub of each flange is mounted on the shaft A and that the set-screw on each flange bears against the shaft, thus preventing the mutilation of the drum or spindle B. In some instances filling-pieces may be inserted in the groove *b* of the drum or spindle, and, in fact, in some instances the drum may terminate, as shown in Fig. 6, and the ribs *d* may extend into the grooves in the drum, said fingers when moved out, as shown in the figure, supporting the warp, although I prefer in most cases to use the device shown in Fig. 1.

I claim as my invention—

1. The combination, in a warp-beam, of the shaft, two heads *a a*, secured to said shaft, a drum or spindle adapted to the shaft and secured to the heads, said drum having longitudinal slots therein, flanges adapted to slide on the shaft and having webs which pass through the longitudinal slots in the drum, and means for attaching the said flanges directly to the shaft, substantially as described.

2. The combination of the shaft A, the two heads *a a*, secured to the shaft, a drum or spindle B, secured to said heads and adapted to turn with the shaft, and two flanges D D, adapted to slide on the shaft and having webs adapted to longitudinal slots in the drum, with a set-screw passing through the hub of each flange and so binding it upon the shaft, substantially as specified.

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

ARCHIBALD NIMMO.

Witnesses:

EUGENE ELTERICH,
HARRY SMITH.