No. 627,445. Patented June 20, 1899.

J. A. ROBINSON.

WARP CONTROLLING MEANS FOR LOOMS.

(Application filed July 9, 1898.)

(No Model.)

Fig. 1.

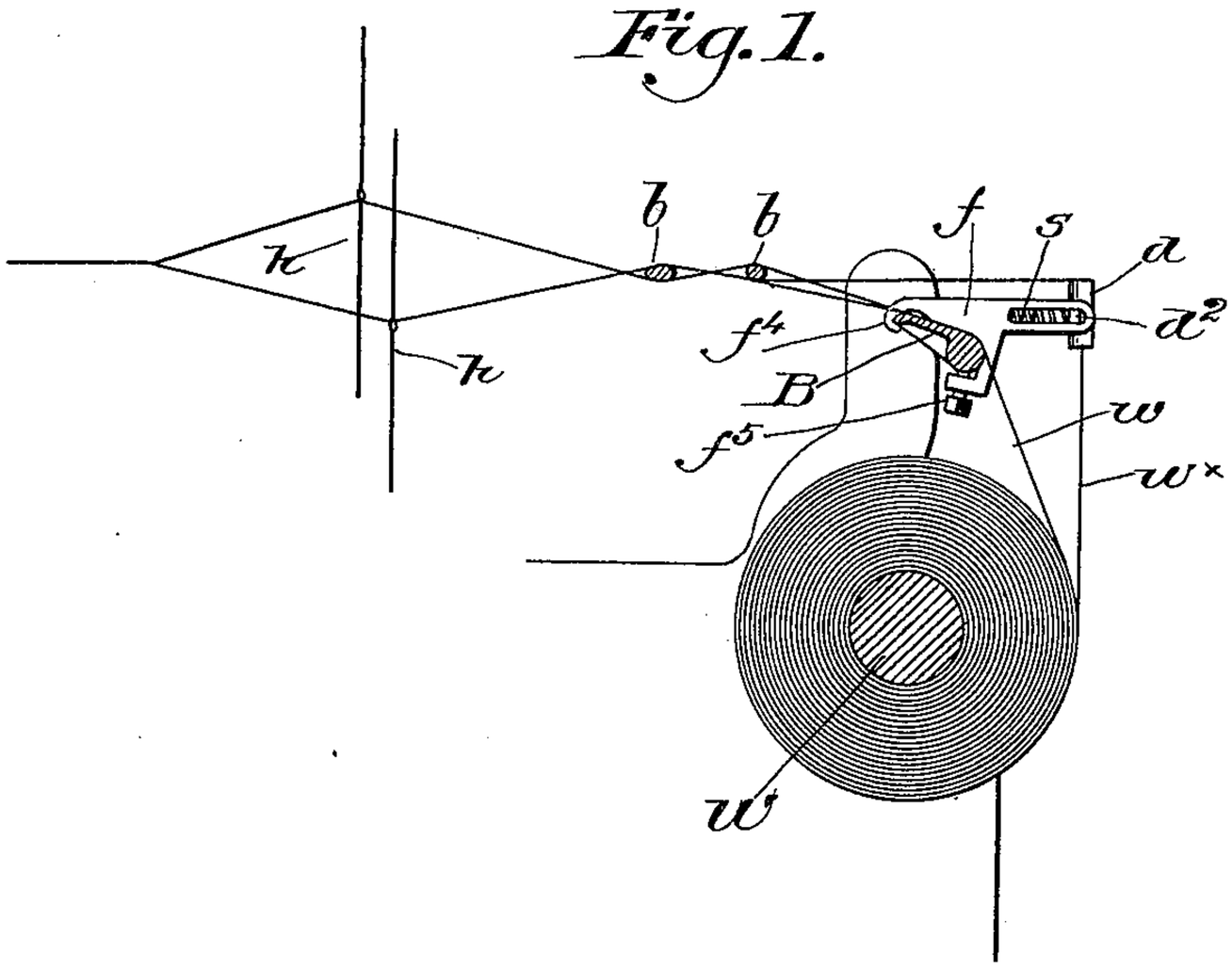


Fig. 2.

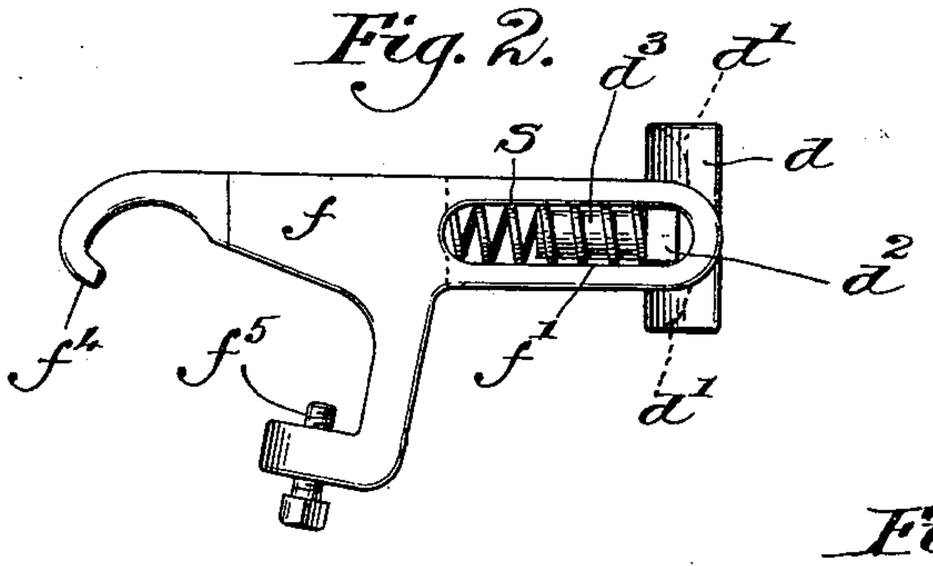
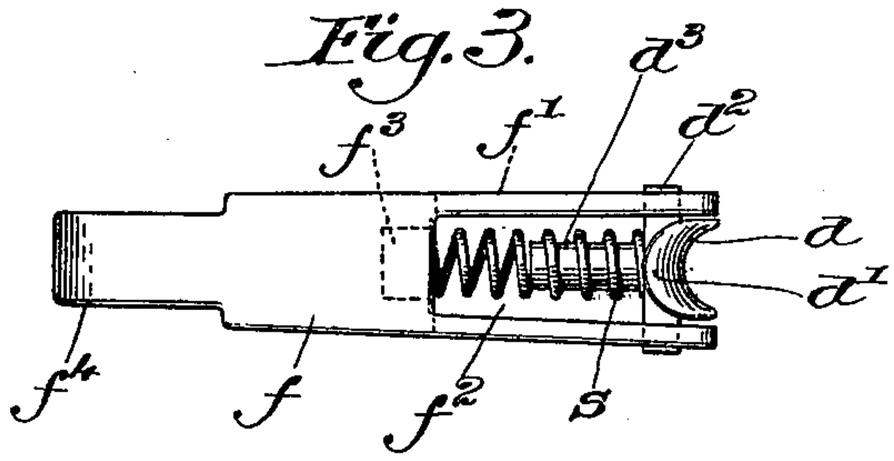


Fig. 3.



Witnesses:
A. G. Harwood.
Edward F. Allen.

Inventor:
John A. Robinson.
by Crosby Gregory.
Attys.

UNITED STATES PATENT OFFICE.

JOHN ARTHUR ROBINSON, OF ADAMS, MASSACHUSETTS, ASSIGNOR TO THE MASON MACHINE WORKS, OF TAUNTON, MASSACHUSETTS.

WARP-CONTROLLING MEANS FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 627,445, dated June 20, 1899.

Application filed July 9, 1898. Serial No. 685,511. (No model.)

To all whom it may concern:

Be it known that I, JOHN ARTHUR ROBINSON, of Adams, in the county of Berkshire and State of Massachusetts, have invented an Improvement in Warp-Controlling Means for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In looms for weaving the selvage-warps are subjected to much greater strain than the body-warps, owing to the fact that as the lay beats up the reed spreads the warps laterally at the fell and as the lay recedes the cloth contracts. This lateral movement of the warp-threads is greatest at the selvage, and as a consequence the selvage-warps are unduly strained and frequently break.

My present invention has for its object the production of means for reducing or in great part relieving the selvage-warps from such strain, resulting in fewer breakages and improved product.

Figure 1, in section, represents a portion of a loom with one embodiment of my invention applied thereto. Fig. 2 is an enlarged side elevation of a selvage-warp guide embodying my invention, and Fig. 3 is a top or plan view thereof.

Referring to Fig. 1, the main or body warp threads w are led from the warp-beam W up over a whip-bar B, of usual construction, and pass thence to the lease-rods b b and the harnesses h h. The selvage-warp threads $w^{\times}$ at each side are gathered together and pass over yielding mounted guides, one at each end of the whip bar or roll, as the case may be, and pass from said guides to the lease-rods. Each guide is shown as a longitudinally-grooved bar d, flared or rounded at its ends, as at d', and having lateral lugs d^2, which enter and are guided by substantially horizontal slots f' in a stand f, bifurcated at its rear end at f^2, Fig. 3, to receive the guide, which occupies an upright position. A spring s rests at one end in a socket f^3 in the stand and at its other end surrounds a stem d^3, extended forward from the guide, the spring tending to maintain the guide in its rearward position, as shown. The stand has a jaw f^4 and a clamping-screw f^5 to hold the stand in place on the end of the whip-bar B. When the lay beats up and the reed exerts a greater tension on the selvage-warps $w^{\times}$, they act to draw the guides d forward, compressing the controlling-springs s more or less, according to the strain, so that while said warps are maintained at the proper working tension the guides yield to relieve the undue strain. As the lay moves back the strain on the selvage-warps is reduced and the slack is taken up by the guide-springs.

It is immaterial, so far as my invention is concerned, how the whip bar or roll be mounted, for in any event the selvage-warps are yieldingly supported independently of the body-warps and are free to yield when subjected to strain without reference to such body-warps.

The construction and arrangement of the selvage-guides may be changed without departing from the spirit and scope of my invention, the essential feature of which resides in yieldingly supporting the selvage-warps independently of the device which supports the main body of the warp-threads.

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

1. In a loom, a whip bar or roll for the main body of warp-threads, and independent, yielding guides for the selvage-warp threads.

2. In a loom, the whip bar or roll, a stand at each end thereof, and a spring-controlled guide mounted on each stand, to support the selvage-warps independent of the body-warps.

3. A stand having a bifurcated longitudinally-slotted end, a guide movable in said bifurcated end and having a longitudinally-concave face to receive the selvage-warps, ears on said guide, to travel in the longitudinal slots of the stand, and a spring to control the movement of the guide.

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

JOHN ARTHUR ROBINSON.

Witnesses:
WILLIAM DUXBURY,
GEO. WESTON.