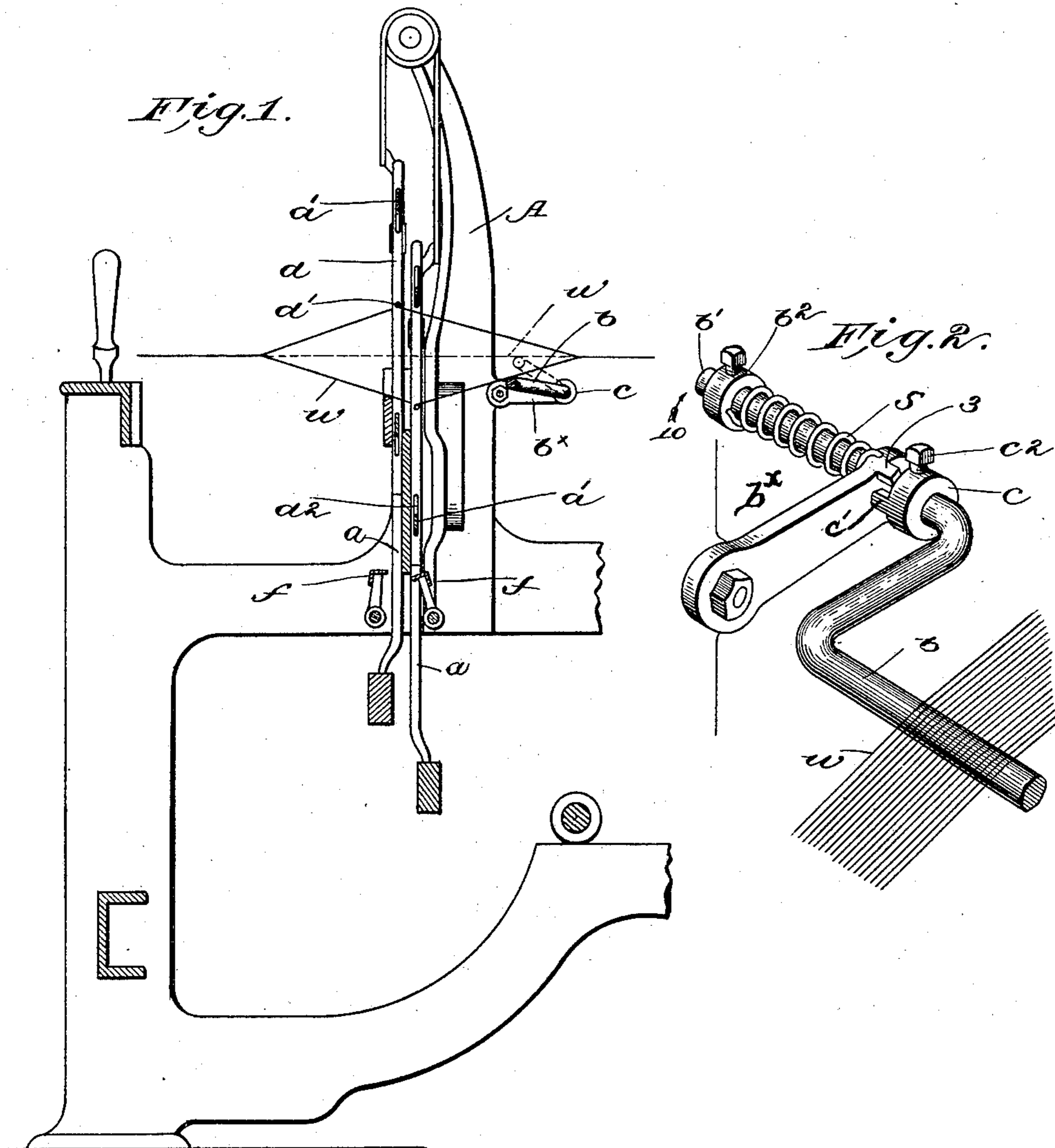


No. 671,534.

Patented Apr. 9, 1901.

E. E. BARTLETT.
WARP REST FOR LOOMS.
(Application filed Aug. 30, 1900.)

(No Model.)



witnesses.
W. C. Sunsford.
Fred S. Grunkef.

Inventor:
Eugene E. Bartlett,
by Wesley Gregory.
att'y's.

UNITED STATES PATENT OFFICE.

EUGENE E. BARTLETT, OF VALLEYFIELD, CANADA, ASSIGNOR TO DRAPER COMPANY, OF PORTLAND, MAINE, AND HOPEDALE, MASSACHUSETTS.

WARP-REST FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 671,534, dated April 9, 1901.

Application filed August 30, 1900. Serial No. 29,735. (No model.)

To all whom it may concern:

Be it known that I, EUGENE E. BARTLETT, of Valleyfield, Province of Quebec, Canada, have invented an Improvement in Warp-Rests for Looms, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings representing like parts.

10 This invention relates to looms; and it has for its object the production of a rest for the warps, comprising the lower plane of the shed, which rest is so constructed that the lower warps will be thereby subjected to a yielding tension.

15 My invention is particularly adapted for use in connection with warp-stop-motion mechanism controlled by vertically-movable actuating-detectors—such, for instance, as shown in United States Patent No. 536,969, dated April 2, 1895, the detectors therein serving also as heddles and having a limited vertical movement independent of the heddle-frame.

25 Figure 1 is a vertical sectional view of a sufficient portion of a loom to be understood with my invention applied thereto, and Fig. 2 is an enlarged perspective detail of the means for yieldingly controlling the warp-rest.

30 I have herein shown the loom as provided with a series of warp-stop-motion actuating-detectors d , also serving as heddles, provided each with a warp-eye d' and elongated slots d^2 , through which are extended the cross-bars a' of the vertically-reciprocated frames a , such reciprocation, effected in any suitable manner—as, for instance, in the United States patent referred to—forming the shed. When
40 one series of detectors is depressed, the tension of the warps w , forming the lower plane of the shed, should maintain the detectors lifted out of the path of the feeler f , vibrated in usual manner, unless one or more of such
45 detectors are permitted to drop by breakage or undue slackness of their warp-threads, and in order to at all times provide sufficient tension for the warps in the lower plane of the shed to lift the detectors I employ a yielding warp-rest. I have herein shown the said

rest as a bar b , extended across the loom below the warps and bent at each end to form journals b' for the rest, only one of such journals being herein shown. The journals are mounted to rock in bearings on stands b^x , secured to the loom sides A , one of the said
55 journals (see Fig. 2) being extended beyond the bearing and having a collar b^2 adjustably held thereon. A spring s is wound around the journal and fastened at its ends to the collar b^2 and the stand b^x , respectively, and tending to lift the warp-rest by rotating its journals in the direction of arrow 10, Fig. 2. A lateral lug 3 on the stand is adapted to be engaged by a lug or projection c' on a collar c ,
60 adjustably secured on the journal within the stand by a suitable set-screw c^2 to thereby limit the extreme upward movement of the warp-rest and also to prevent it from following the warps beyond a fixed point when the
65 shed is closed.

It is unnecessary to provide each journal of the bar b with a lifting-spring, so that one of the journals may be plain.

When the warps w are moved into the lower
75 plane of the shed, as shown in Fig. 1, they press upon the warp-rest b , depressing it against the action of its lifting-spring s as the warps continue to descend, and by adjusting the spring the tension to be put upon
80 the warps is regulated, the depression of the warp-rest being effected by the warps, said warp-rest rising with the warps when the shed is closed until stopped, as described. The tension thus imparted to the warps in-
85 sures the proper lifting of the corresponding detectors, so that they will not be engaged accidentally by the feeler, and the loom stopped in consequence. It also aids in preventing the swaying of the detectors by giving the threads
90 a frictional set.

My invention is not restricted to the precise construction herein shown, which illustrates one convenient mode of practicing my invention.

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

1. In a loom, shedding mechanism, and a yielding warp-rest for and adapted to increase 100

the tension of the warps in the lower plane of the shed, the depression of the warp-rest being effected by the warps.

2. In a loom, shedding mechanism, a spring-
5 controlled normally-lifted warp-rest adapted to be engaged and depressed by engagement with the warps in the lower plane of the shed, to increase the tension of said warps.

3. In a loom, a bar extended beneath the
10 warps and bent at its ends to form journals on which the bar rocks, fixed bearings for said journals, a spring to normally lift the bar, and a limiting-stop therefor.

4. In a loom, a series of vertically-recipro-
15 cated detectors held in inoperative position by the warp-threads when intact, a supporting-bar for said detectors and on which they have a limited independent movement vertically, and a yielding warp-rest for and de-
20 pressed by the warps in the lower plane of

the shed, to insure the vertical movement of their detectors on the supporting-bar.

5. In a warp stop-motion for looms, a series of vertically-reciprocated stop-motion actu-
ating-detectors controlled as to their position 25 by the warp-threads, a cooperating vibratable feeler to engage a dropped detector, a spring-controlled warp-rest for and to be engaged and depressed by the warps in the lower plane of the shed, to increase their ten- 30 sion and insure the movement of the detectors into proper position, and a stop to limit the upward movement of the warp-rest.

In testimony whereof I have signed my name to this specification in the presence of 35 two subscribing witnesses.

EUGENE E. BARTLETT.

Witnesses:

EDWARD A. CASSIDY,
ARCHD. R. FRASER.