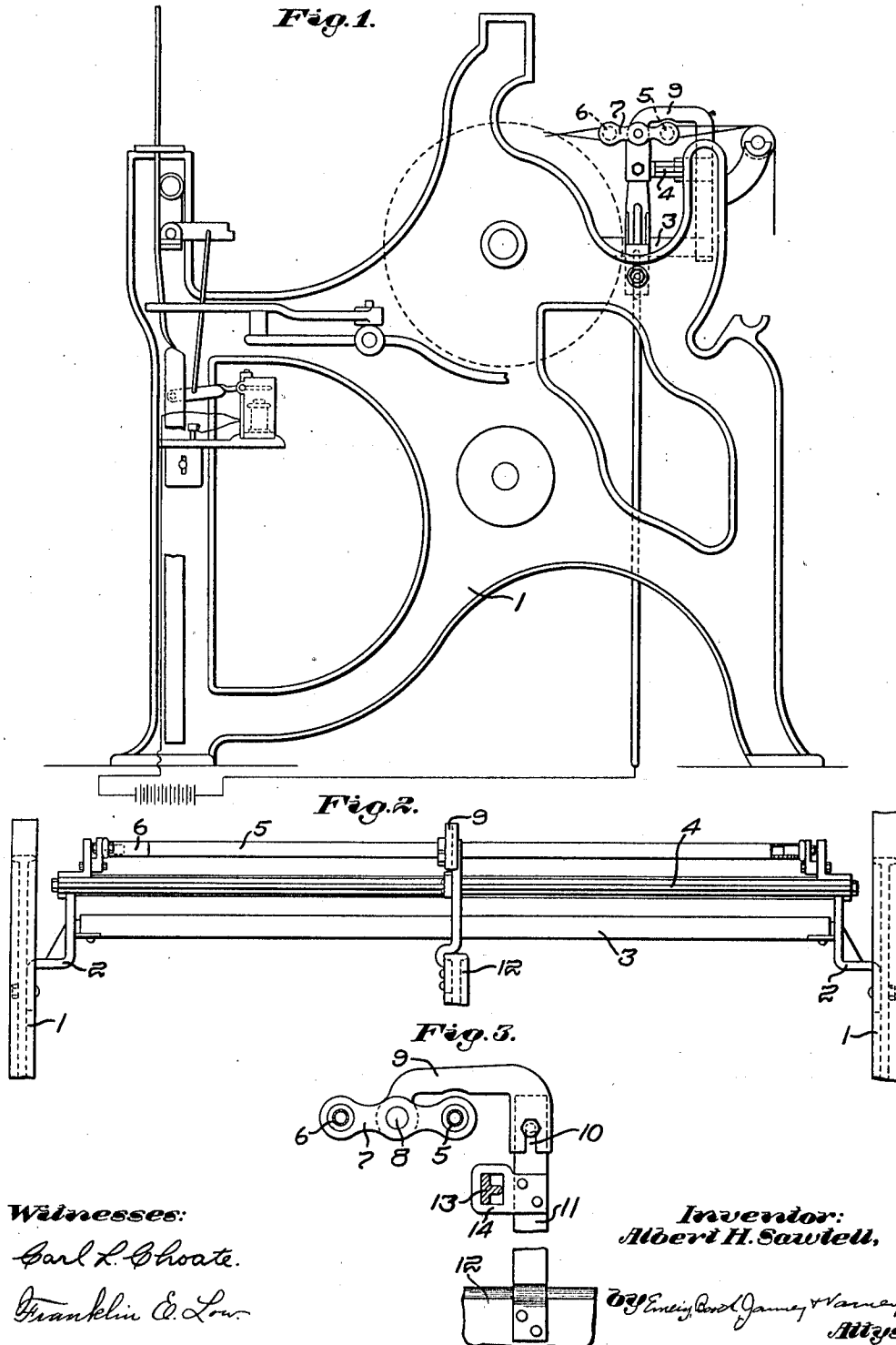


A. H. SAWTELL.
MOVABLE LEASE ROD SUPPORT.
APPLICATION FILED OCT. 9, 1911.

1,022,382.

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UNITED STATES PATENT OFFICE.

ALBERT H. SAWTELL, OF MEDFORD, MASSACHUSETTS, ASSIGNOR TO JAMES K. LANNING, OF BOSTON, MASSACHUSETTS.

MOVABLE-LEASE-ROD SUPPORT.

1,022,382.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed October 9, 1911. Serial No. 653,580.

To all whom it may concern:

Be it known that I, ALBERT H. SAWTELL, a citizen of the United States, and a resident of Medford, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Movable-Lease-Rod Supports, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention relates to movable lease rod supports and particularly to means for supporting movable lease rods of broad looms.

In order that the principle of the invention may be readily understood, I have disclosed a single embodiment thereof in the accompanying drawing, wherein—

Figure 1 is an end elevation of a loom having my invention applied thereto; Fig. 2 is a view mainly in side elevation, of the lease rod supporting means of the loom; and Fig. 3 is a view partially in vertical section and partially in end elevation, showing the intermediate supporting means for the lease rods.

Lease rods supported by the side frames of a loom for movement in conformity with the requirements of the warp are disclosed in the patent to James K. Lanning, No. 861,217, July 23, 1907. It is customary to support such lease rods or members for a to and fro movement which may be an up and down and preferably an oscillating movement. Lease rods so supported are peculiarly serviceable in connection with warp stop mechanism having warp detectors, such as disclosed in said patent, or in the patent to Coldwell and Gildard, No. 690,636, January 7, 1902. Such removable lease rods as heretofore constructed and supported are not well adapted for use in connection with certain types of looms, as for example broad looms. It is the province of my invention to adapt movable lease rods as hereinbefore described to certain looms, particularly of the broad type.

Lease rods when supported so as to have a to and fro or up and down movement are liable in broad looms to be very considerably bent in the operation of the loom. This results in an uneven movement and consequent strain upon the warp in the weaving operation, and particularly during the harness movements and the beat up. In

those looms wherein drop wires are employed and particularly where the drop wires are supported upon a warp near or between the lease rods, such bending of the movable lease rods tends to create uneven conditions of the yarn passing through the drop wires, as to friction, etc. In order to overcome these defects, I have devised means for suitably supporting the lease rods or members at a point intermediate their ends and preferably at substantially mid-width of the loom without, however, interfering with the warp induced movements of said lease rods or members.

Referring more particularly to the drawing, I have indicated at 1 one of the side frames of the loom, which may be of the general type shown in said Coldwell Gildard Patent, No. 690,636. Supported upon the side frames of the loom, as indicated in Fig. 2 are brackets 2, 2 extending inwardly and upwardly and receiving thereon a contact bar 3 which may be of the general type shown in said patent. Supported above said contact bar are preferably provided circuit rods, one of which is indicated at 4 and suitably related thereto are provided drop bars which may be of the character indicated in said patents. Mounted for oscillating or other warp conforming movement by the side frames of the loom are a pair of lease rods 5, 6, which preferably are provided with yokes at their ends, said yokes being pivoted upon suitable portions of the brackets 2 in a manner which may be similar to that disclosed in the said Lanning Patent, No. 861,217. In this manner, the ends of the lease rods are supported at their ends for warp conforming movement. In order to support the lease rods at a point intermediate their ends and preferably at a point substantially mid-width of the loom, but in such a manner as not to interfere with the said warp conforming movement thereof, I have herein provided a yoke 7 extending transversely of and connecting said lease rods at the described point. Said yoke 7 is pivoted at 8 to an overhanging end of a holder or support 9, which by means of a slot and bolt connection 10 is supported at its opposite end upon a stand 11, itself secured to the center leg 12 of the loom. In order more firmly to support the parts and also to provide an intermediate support for the back brace 13 of the loom, I preferably pro-

vide the stand 11 with an arm 14 formed therewith or secured thereto and extending laterally therefrom to receive and support said back brace. If desired and as shown, 5 said arm 14 is formed with a suitable opening through which the back brace passes and by which it is firmly supported. By reason of the described adjustment of the holder 9, the lease rods may be suitably supported at the desired height. The holder 9 10 which preferably overhangs the lease rods is suitably shaped so as not to interfere with the warp induced movements of said lease rods. Said holder 9 is preferably positioned 15 so as to overhang the lease rods in order not to interfere with the drop bars.

Within the scope of my invention and particularly in very broad looms, I may provide a plurality of intermediate lease rod 20 supports positioned, for example, at two points intermediate the side frames of the loom, but in practice I have found a single support to be sufficient.

It is evident that the lease rods or members may be supported in any suitable manner to partake of warp induced movements, 25 my invention not being limited to any particular type of lease rod structure.

Preferably the loom is equipped with electrical warp stop motion devices, which may 30 be of the general type disclosed in said Lanning Patent, No. 861,217.

It will be evident from the foregoing description that the intermediate support for 35 movable lease rods is peculiarly effective where the lease rods are designed to partake of a warp induced movement, inasmuch as such lease rods are peculiarly liable to become bent in operation with resulting unevenness of strain upon the warp threads. 40 By supporting the movable lease rods intermediate the side frames of the loom, I have succeeded in obtaining an even movement of the lease rods and have avoided all unevenness of strain upon the warps in the 45 weaving operation even though the loom be a broad or wide type.

Having thus described one illustrative embodiment of my invention, I desire it to 50 be understood that although specific terms are employed, they are used in a generic and descriptive sense and not for purposes of limitation, the scope of the invention being set forth in the following claims.

55 I claim:

1. In a loom, a warp-supporting lease-rod

or member mounted at its ends adjacent the side frames of the loom for warp-induced movements, a holder positioned at a point 60 between and substantially remote from the side frames of the loom, a support for said holder below the plane of the warp, said holder having a portion extending from said support outside of the plane of the warp, 65 and a connection between said holder and the lease-rod or member, said connection permitting the said warp-induced movements of said lease-rod or member.

2. In a loom, warp supporting lease rods or members and supporting means therefor 70 permitting an oscillating up and down movement thereof, and including a member extending transversely of and connecting said lease rods at a point substantially remote 75 from their ends and a holder for said member between the side frames of the loom and to which said member is pivoted.

3. A broad loom including among its elements a back brace and a center leg, a pair of oscillating lease rods, means adjacent the 80 side frames of the loom for supporting the ends of said lease rods for oscillating movement, and means mounted upon the center leg of the loom for supporting the back brace at a point intermediate its ends and 85 also for bracing the lease rods at a point intermediate their ends, but permitting oscillatory movement thereof.

4. In a loom, warp supporting movable lease rods or members mounted at their ends 90 adjacent the side frames of the loom, and a support secured substantially mid-width of the loom and overhanging said lease rods, and means for connecting said support to said lease rods without interfering with the 95 movements of the latter.

5. In a broad loom, a center leg, a pair of oscillating lease rods supported at their ends by the side frames of the loom, a yoke connecting said rods at a point substantially 100 intermediate their ends, and a holder to which said yoke is pivoted, said holder being adjustably supported upon said center leg of the loom.

In testimony whereof, I have signed my 105 name to this specification, in the presence of two subscribing witnesses.

ALBERT H. SAWTELL.

Witnesses:

NICHOLAS HATHEWAY,
CHAS. S. RAMSAY.