No. 726,417. PATENTED APR. 28, 1903.

W. FEHR.

HARNESS FRAME FOR LOOMS.

APPLICATION FILED SEPT. 29, 1902.

NO MODEL.

Fig. 1.

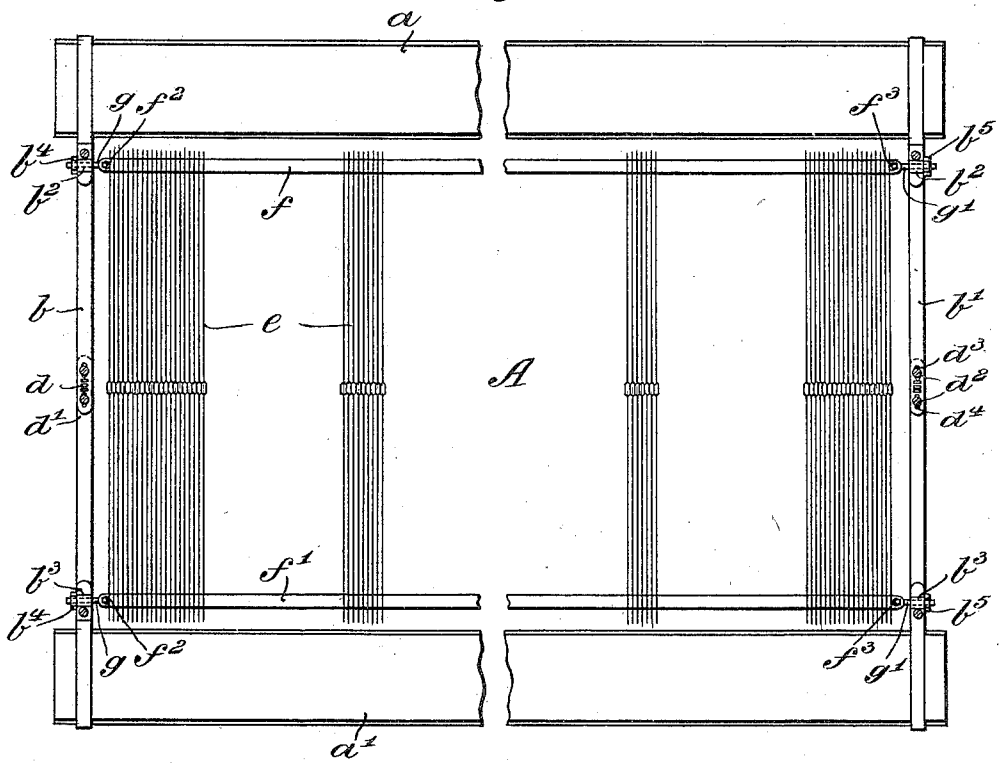


Fig. 2.

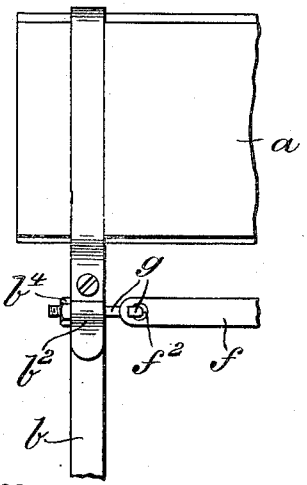


Fig. 3.

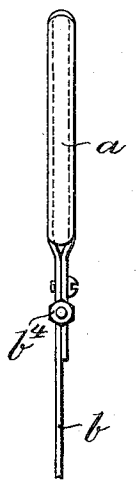


Fig. 5.

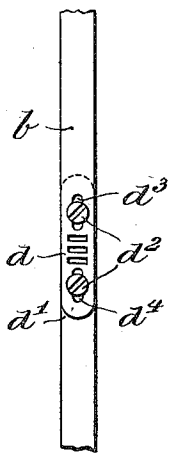


Fig. 6.

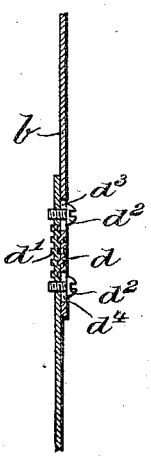
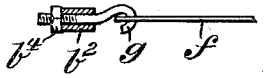


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM FEHR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO STEEL HEDDLE MANUFACTURING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

HARNESS-FRAME FOR LOOMS.

SPECIFICATION forming part of Letters Patent No. 726,417, dated April 28, 1903.

Application filed September 29, 1902. Serial No. 125,145. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FEHR, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Harness-Frames for Looms, of which the following is a specification.

My invention has relation to a harness-frame for looms; and in such connection it relates to the construction of the harness-frame, with special reference to the arrangement of the heddle bars or rods as to the manner of supporting and detaching the said bars or rods carrying the heddles of the harness and of taking up slack in said bars or rods both vertically and longitudinally thereof.

My invention, stated in general terms, consists of a harness-frame for looms constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and characteristic features of my present invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a front elevational view of a harness-frame for looms embodying main features of my invention. Fig. 2 is a similar view, in broken section, of the harness-frame, a portion of the adjustable and detachable heddle bar or rod and strap adapted to be connected with said bar or rod. Fig. 3 is an end view of the same. Fig. 4 is a top or plan view, partly in section, of the adjustable and detachable hook or device connected with the bar or rod carrying and supporting the heddles. Fig. 5 is a front plan view of the slack-take-up device of the strap adapted to embrace each of the frames of the harness, and Fig. 6 is a vertical sectional view through the said slack-take-up device of Fig. 5.

Referring to the drawings, a and a' are the two longitudinal harness-frames, tied to each other by vertical straps b and b', embracing the said frames, and provided with bearings b^2 and b^3 for a purpose to be presently explained. Each of the straps b and b' is provided with a slack-take-up device, which consists of a male member d and a female member d', having, respectively, projections and indentations or recesses engaging each other and tightened to each other by securing means, such as screws d^2, inserted through the respective members d and d'. In the member d of the take-up device are provided oblong slots d^3 and d^4, through which the headed screws inserted engage the member d', so that the respective projections of one member and complemental indentations or recesses of the other member by means of said screws may be fastened with respect to each other in required position after slack has been taken up in the harness-frame A to maintain the heddles in required operative position within the same. e is a series of heddles supported in vertical position within the harness-frame a proper distance apart on the longitudinal bars or rods f and f', provided at the ends with eyes f^2 and f^3, engaged by tightening hooks or devices g and g', which are partially threaded and extend, respectively, through the bearings b^2 and b^3 of the straps b and b' and to which are applied nuts b^4 and b^5 or other securing devices for taking up slack longitudinally in the heddle bars or rods f and f'. By loosening the nuts b^4 and b^5 the said hooks or devices g and g' can be readily released from the bars or rods f and f' of the harness-frame A, and therewith the series of heddles e, without disturbing the harness-frames a and a' and straps b and b', tying the same together at the respective ends thereof.

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

In a harness for looms, the combination with the heddles of two longitudinally-arranged bars or rods adapted to support the heddles at their ends, two frames arranged parallel with the bars or rods and inclosing the heddles and their supporting bars or rods, a strap connecting the frames at either end and divided into two parts at a point between the bars or rods supporting the heddles, means for adjusting each strap at its point of division, a bearing formed in each strap adjacent

to each frame, a hook extending through each bearing and adapted to engage an end of a supporting bar or rod, said hooks thereby removably securing the bars or rods to the straps and means for adjusting the hooks to thereby increase or diminish the tension on said bars or rods.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

WILLIAM FEHR.

Witnesses:
J. WALTER DOUGLASS,
THOMAS M. SMITH.