No. 686,569. Patented Nov. 12, 1901.

T. D. WILMARTH.

SELVAGE HEDDLE FRAME.

(Application filed Feb. 8, 1901.)

(No Model.)

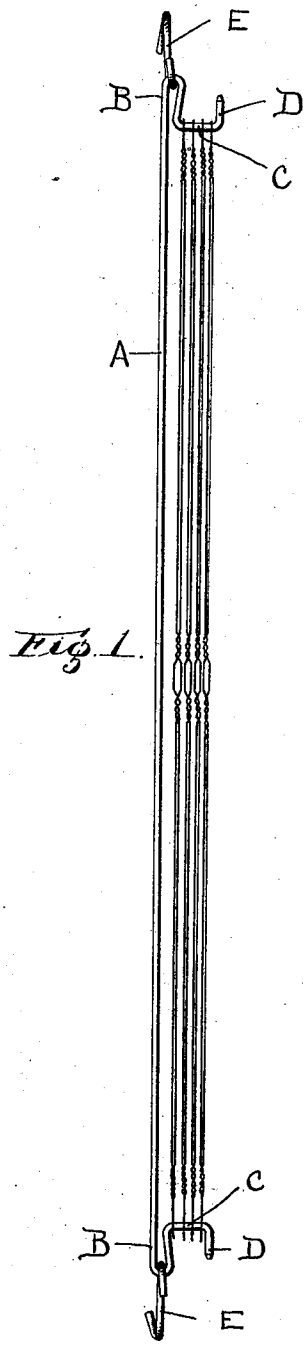


Fig. 1.

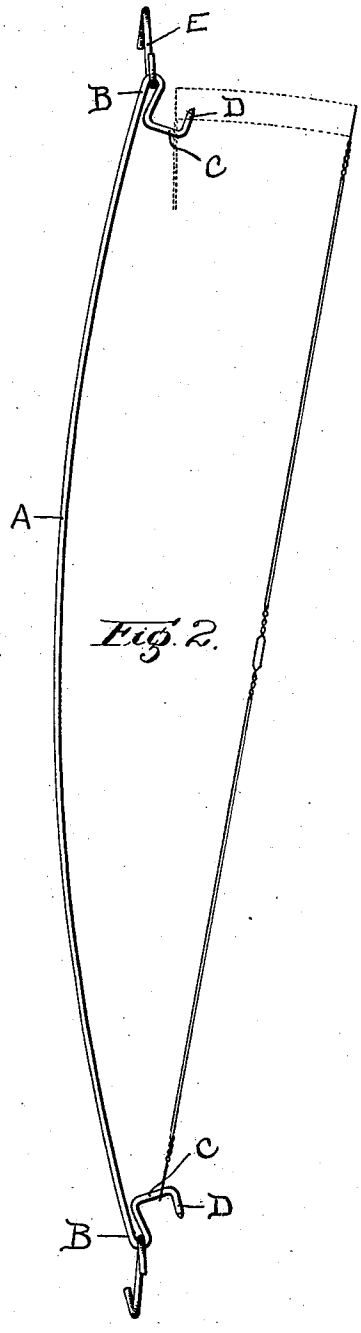


Fig. 2.

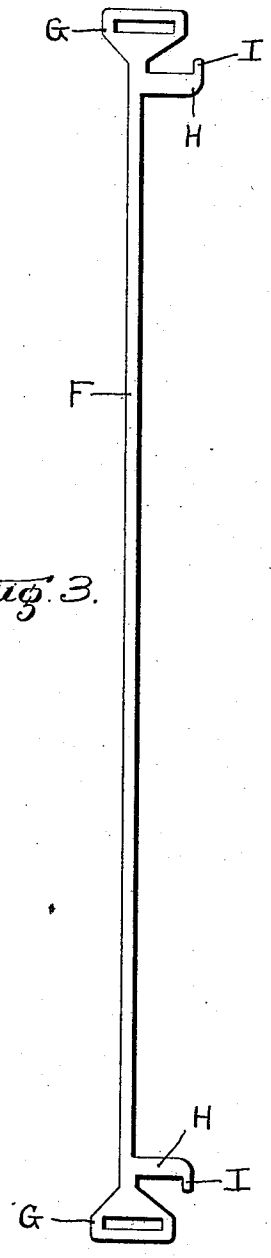


Fig. 3.

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UNITED STATES PATENT OFFICE.

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SELVAGE-HEDDLE FRAME.

SPECIFICATION forming part of Letters Patent No. 686,569, dated November 12, 1901.

Application filed February 8, 1901. Serial No. 46,556. (No model.)

To all whom it may concern:

Be it known that I, THOMAS D. WILMARTH, a citizen of the United States, residing at Saundersville, in the county of Worcester and State of Massachusetts, have invented a new and useful Selvage-Heddle Frame, of which the following is a specification.

This invention relates to an improved construction for supporting and operating the selvage-heddles of looms; and the especial objects of this invention are to provide a frame or support for carrying selvage-heddles which is arranged so as to support the operating strain and which is constructed so that the same can be readily repaired or the heddles threaded onto or removed therefrom as may be required.

To these ends this invention consists of the construction for supporting and operating the selvage-heddles in looms and of the combinations of parts therewith, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view illustrating the preferred form of my construction. Fig. 2 is a similar view showing the body portion of the frame bent or sprung, so as to permit the heddles to be threaded thereon or removed therefrom, as indicated by dotted lines; and Fig. 3 is a side view illustrating a modified form of construction.

To form the selvages at the opposite edges of a piece of cloth which is woven in a loom, a number of heavy warp-threads are usually employed at each side. The selvage-thread heddles, through which the selvage-threads pass, have usually been threaded into or fastened into saddle-pieces at their opposite ends, which saddle-pieces are connected to the cam mechanism and returning-springs for raising and lowering the selvage-heddles. This in practice I have found to be objectionable, as the heddles are usually supported so that they are liable to become twisted or snarled together, and in any event the entire strain of operation is brought upon the heddles themselves, while the ordinary construction does not allow the heddles to be readily replaced or renewed. To overcome these defects, I have provided a construction in which the selvage-thread heddles are carried in a frame, in which the heddles are mounted so that they are not liable to twist together, and instead of having the strain of operation borne by the heddles the strain of operation is taken upon the frame, which may be made as strong as necessary and which is constructed so that the heddles can quickly be threaded onto or removed therefrom when it is desired to replace broken heddles or vary the number of selvage-thread heddles employed.

In Figs. 1 and 2, which illustrate the preferred form of my construction, the frame is formed from a single piece of spring-wire and comprises a spring body portion A, having loops or return-bends B at its ends. Extending from the loops B are arms C, forming supports or heddle-rods, which may be threaded through the eyes of a number of heddles, as shown, the ends of the wire being bent, as at D, to hold the heddles in place. Engaging the loops B at the ends of the spring body portion A are hooks E, which may be connected to the operating connections and to the returning-spring in the ordinary manner.

In using this construction when it is desired to remove or replace the heddles the spring body portion may be flexed or bent, as illustrated in Fig. 2, or in practice more frequently at right angles to the position illustrated in Fig. 2, so that the heddle-rods C will be brought closer together, permitting the heddles to be removed or replaced, as illustrated by dotted lines.

Instead of making my heddle-supporting frame from spring-wire the same, if preferred, can be formed from sheet metal, and I have illustrated such a construction in Fig. 3. As shown in Fig. 3, the device may comprise a sheet-metal body portion F, having eyes G at its opposite ends for receiving the operating connections and having extending arms or integral heddle-rods H with projections or lips I for holding the heddles in place thereon. In order to remove or replace the heddles upon the heddle-rods H, the sheet-metal body portion F instead of being bent or flexed as illustrated in Fig 2 is bent or flexed sidewise.

I am aware that changes may be made in the construction of my device for supporting and operating the selvage-heddles in looms and in the manner in which the heddles are removed from or replaced thereon without

departing from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the forms I have herein shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a frame for operating the selvage-heddles of a loom, comprising arms or heddle-rods with a flexible body between them which may be bent or flexed when the heddles are to be removed from or replaced onto the arms, substantially as described.

2. As an article of manufacture, a selvage-heddle frame for use in connection with, and in addition to the ordinary heddle-frames, comprising an upright or body portion located entirely at one side of the selvage-heddles, extending arms or heddle-rods on which the heddles are strung, and means for connecting the body portion with the operating devices, said parts being arranged so that the strain of operation will be borne by the frame, substantially as described.

3. As an article of manufacture, a spring-wire heddle-frame for operating the selvage-heddles of looms, comprising a spring body portion having return-bends at its ends, with extending arms or heddle-rods for engaging the eyes of the heddles, the ends of the wire being bent to form stops for retaining the heddles in place, and said parts being arranged so that the body portion thereof may be bent or flexed when the heddles are to be removed or replaced, substantially as described.

4. As an article of manufacture, a spring-wire frame for supporting and operating the selvage-heddles of a loom, comprising a spring body portion A, having return-bends B at its ends, with projecting arms C forming heddle-rods for receiving the eyes of the heddles, the ends of the wire being bent to form stops D for holding the heddles in place, and hooks E for connecting the frame to the operating devices, said parts being arranged so that by bending or flexing the body portion A, the heddles may be removed or replaced, substantially as described.

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

THOMAS D. WILMARTH.

Witnesses:

LOUIS W. SOUTHGATE,

PHILIP W. SOUTHGATE.