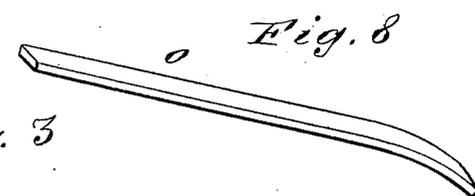
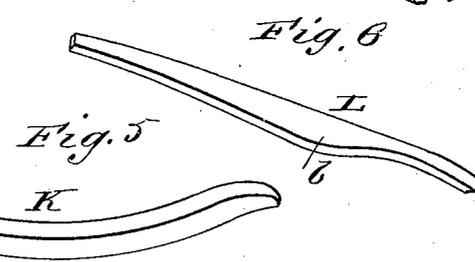
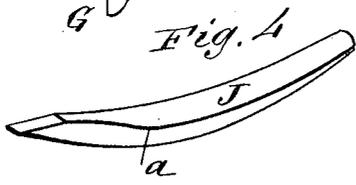
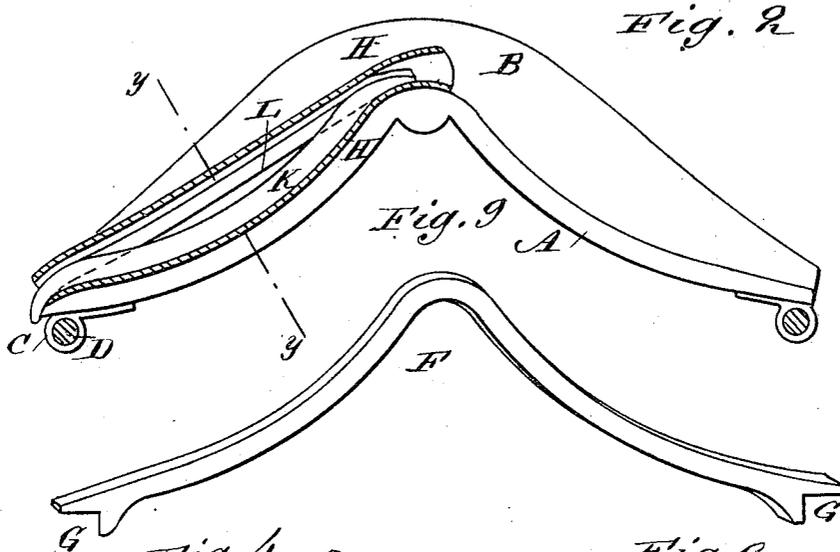
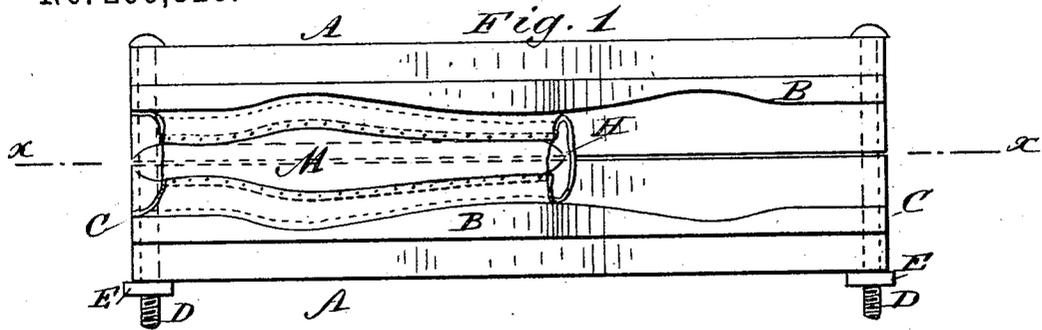


(No Model.)

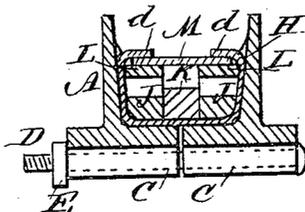
J. W. JOHNSON.
HARNESS PAD PRESS.

No. 266,828.

Patented Oct. 31, 1882.



WITNESSES:
C. Newell
L. Sedgwick



INVENTOR:
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UNITED STATES PATENT OFFICE.

JOSEPH W. JOHNSON, OF LATHROP, MISSOURI, ASSIGNOR TO HIMSELF
AND AUGUSTUS F. HOYT, OF SAME PLACE.

HARNESS-PAD PRESS.

SPECIFICATION forming part of Letters Patent No. 266,828, dated October 31, 1882.

Application filed August 22, 1882. (No model.)

To all whom it may concern :

Be it known that I, JOSEPH W. JOHNSON, of Lathrop, in the county of Clinton and State of Missouri, have invented a new and Improved Harness-Pad Press, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved press for making harness-pads of all kinds and of all sizes, and for completing them without removing them from the press.

The invention consists in a harness-pad press formed of two V-shaped frames, provided with longitudinal vertical ridges having one side flat and the other side recessed or curved to adapt the frame to form straight or swelled pads. The two frames are united by bolts, and the leather for forming the pad is placed between them and formed by means of the forming-irons, wedges, and clinching-irons placed between the leather on the frame, upon which the edges of the leather are lapped over the clinching-irons, and a piece of leather is placed under the said edges, and is secured to the same by means of tacks or rivets driven through the overlapping edges of the two pieces of leather, and having their points bent over or clinched by the clinching-irons, whereby the two pieces of leather will be united and a perfect pocket or casing for the filling of the pad will be formed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved harness-pad press, showing a pad in the same. Fig. 2 is a longitudinal sectional elevation of the same on line *xx*, Fig. 1. Fig. 3 is a cross-sectional elevation on line *yy*, Fig. 2. Fig. 4 is a perspective view of one of the forming-irons for forming the swelled pads. Fig. 5 is a perspective view of the wedge for separating the forming-irons. Fig. 6 is a perspective view of the clinching-irons for swelled pads. Fig. 7 is a perspective view of one of the forming-irons for straight pads. Fig. 8 is a perspective view of the clinching-iron for the same, and Fig. 9 is a perspective view of the filling-piece.

The pad-press is formed of two V-shaped frames, A, which have the shanks curved in-

ward, which frames are each provided on the surface with a longitudinal vertical ridge, B, having one surface flat and the other surface curved—that is, recesses are gradually formed toward the ends of the sides of the ridges B.

The frames A are provided at the ends with bolt-loops C, through which bolts D are passed, on which the nuts E are screwed for the purpose of pressing the two frames together.

If very wide pads are to be formed, a filling-piece, F, formed of the same shape as the frames A, is placed between the frames. The said filling-piece F is provided with shoulders G G at the ends, which shoulders rest against the bolts D for the purpose of holding them in place.

If a swelled pad is to be formed, the frames A are so held against each other that the curved or recessed surfaces of the ridges B face each other, and the leather H of which the pad is to be formed is placed on the frames A, between the ridges B B and against the curved sides of the said ridges, upon which the forming-irons J are placed on the leather and against the sides of the ridges B.

The forming-irons are each formed with a swelled part, *a*, which rests against the recessed part of a ridge, B, and presses the leather H against the said recessed part of the ridge.

A wedge, K, which is curved the same as one of the shanks of the frame A, is inserted between the forming-irons J in such a manner that the convex surface of the said wedge K rests against the concave surface of a frame, A. The said wedge separates the two forming-irons and presses them against the leather, which is thus pressed against the curved or recessed sides of the ridges B.

The flat clinching-irons L, which are each provided with a swelled part and adapted to rest against a curved or recessed side of a ridge, B, are placed on the forming-irons J, and the longitudinal edges of the leather H are drawn over the said clinching-irons. A piece of leather, M, is then placed under the edges of the leather H, which rests on the clinching-irons L, and tacks or rivets *d* are driven through the overlapping parts of the pieces of leather M and H. The points of the tacks or rivets strike against the upper surfaces of the clinching-

irons L and are bent over, as shown in Fig. 3, whereby the pieces of leather H and M will be united and will form a pocket or casing for the pad-filling. Then the wedge K is withdrawn and permits the removal of the forming-irons J and the clinching-irons L. The pad can then be stuffed in the usual manner.

The forming-irons J are curved, but the clinching-irons L are flat, and consequently the ends of the clinching-irons rest on the ends of the forming-irons; but at the middle there will be some space between the adjoining surfaces of the clinching-irons and the forming-irons, as shown in Figs. 2 and 3, whereby the completed pad-casings will increase in thickness from the ends toward the middle and increase in width from the ends toward the middle, on account of the peculiar shape of the curved surfaces of the ridges B.

The wedge K may be made of any required width according to the distance that the ridges B of the frames A are separated. If a straight pad is to be formed, the frames A are reversed, so that the straight sides of the ridges B will face each other. The leather H is placed between the ridges on the frames A. The forming-pieces N, which are not provided with the swelled part *a*, are placed on the frames A, the wedge K is inserted between them, and the flat clinching-irons *o*, which are not provided with the swelled parts *b*, are placed on the forming-irons N. The piece of leather M is attached to the piece of leather H, and the pad is formed in the manner described above.

Pads of any desired width can be made on the above-described press, and the pads can be completed without removing them from the press.

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

1. An improved harness-pad press consisting of two V-shaped frames, each provided with a longitudinal vertical ridge having one surface flat and the other curved, and secured together, substantially as herein shown and described, whereby both swelled and plain pads can be made with the said frames, as set forth.

2. The combination, with the frames A, provided with longitudinal ridges B, having one surface flat and the other curved, and bolt-loops C at their ends, of the bolts D and the V-shaped filling-piece F, having shoulders G, substantially as shown and described.

3. In a harness-pad press, the combination, with the frames A, provided with longitudinal vertical ridges B, having one surface flat and the other curved, of the forming-irons J, for shaping the leather, of a wedge for separating the forming-irons, and of a clinching-iron to be placed on the forming-irons, substantially as herein shown and described, and for the purpose set forth.

JOSEPH W. JOHNSON.

Witnesses:

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WILLIAM L. DOUGLAS.