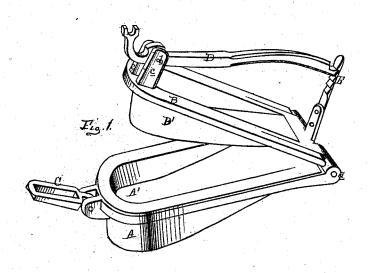
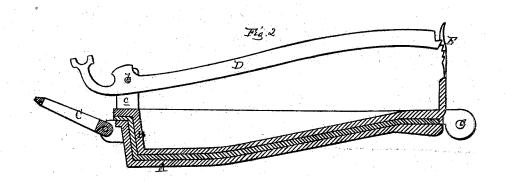
I. N. Harbur, Back Pad Press. No. 111.119, Fatented Jan. 24. 1871.





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## United States Patent Office.

## EDWIN W. HARLOW, OF HASTINGS, MICHIGAN.

Letters Patent No. 111,119, dated January 24, 1871.

## IMPROVEMENT IN BACK-PAD PRESSES.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Beit known that I, EDWIN W. HARLOW, of Hastings, in the county of Barry and State of Michigan, have invented a new and useful Improvement in a Back-pad Press; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of my device open,

and

Figure 2 is a vertical longitudinal section of the same.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved press or crimp for forming the face-leathers of the back-pads in harnesses, and consists in the peculiar arrangement of a lever with relation to a matrix and die of the proper form, whereby the greatest power of the former is applied at the point where the deepest crimping is to be done, as more fully hereinafter set forth.

In the drawing-

A represents a metallic plate, having formed therein a matrix, A', of the form and size of the exterior of the face-leather or cushion of the pad.

B is another plate, having a die, B', on its lower face, which projects into the matrix A', whose form it has, but of less size, by the thickness of the leather to be crimped. The die forms the interior of the

pad.

Both plates are hinged together at their rear or shallow ends, as seen at a.

C is a link, one end of which is pivoted between a pair of studs on the front end of the lower plate.

D is a lever, having for its fulcrum a shaft, b, inserted through a pair of standards, c, on the fore part of the plate B, with its short arm turned up and hollowed to receive the end of the link C, while the end of its long arm is formed to engage with a serrated spring-catch, E, rising from the rear end of the plate B.

The operation of the device is as follows:

A piece of leather of the proper size, and well soaked, is introduced between the opened plates, which are then closed and the short arm of the lever hooked into the link.

The long arm of the lever is then forced down until the leather is forced to the bottom of the matrix by the die, which is held down by the engagement of the lever with the spring-catch until the pad-leather has become set in its shape.

What I claim as my invention, and desire to secure

by Letters Patent, is-

The construction and arrangement of the matrix and die-plates A B, links C, lever D, and spring-catch E, as and for the purpose set forth.

EDWIN W. HARLOW.

Witnesses:

S. C. PRINDLE,

S. E. CRANDALL.