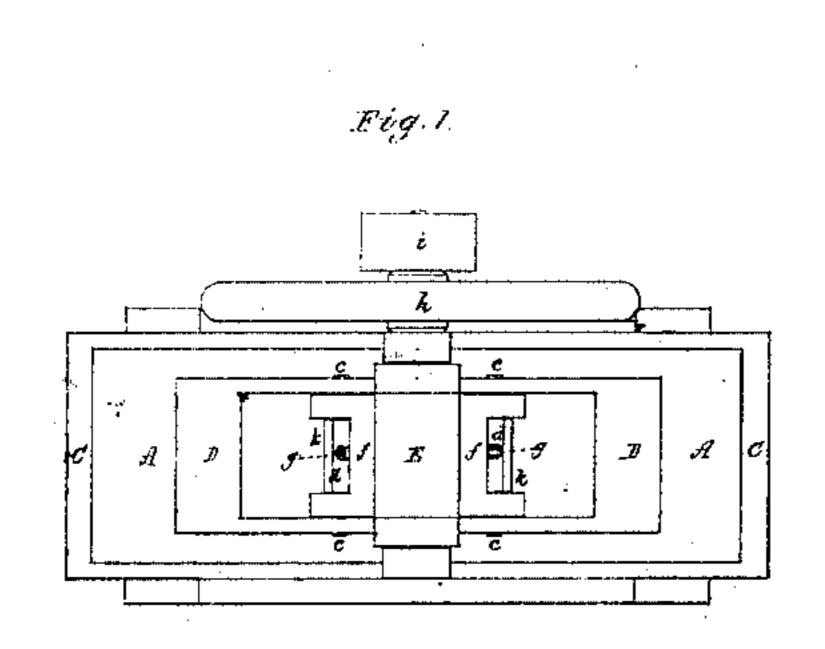
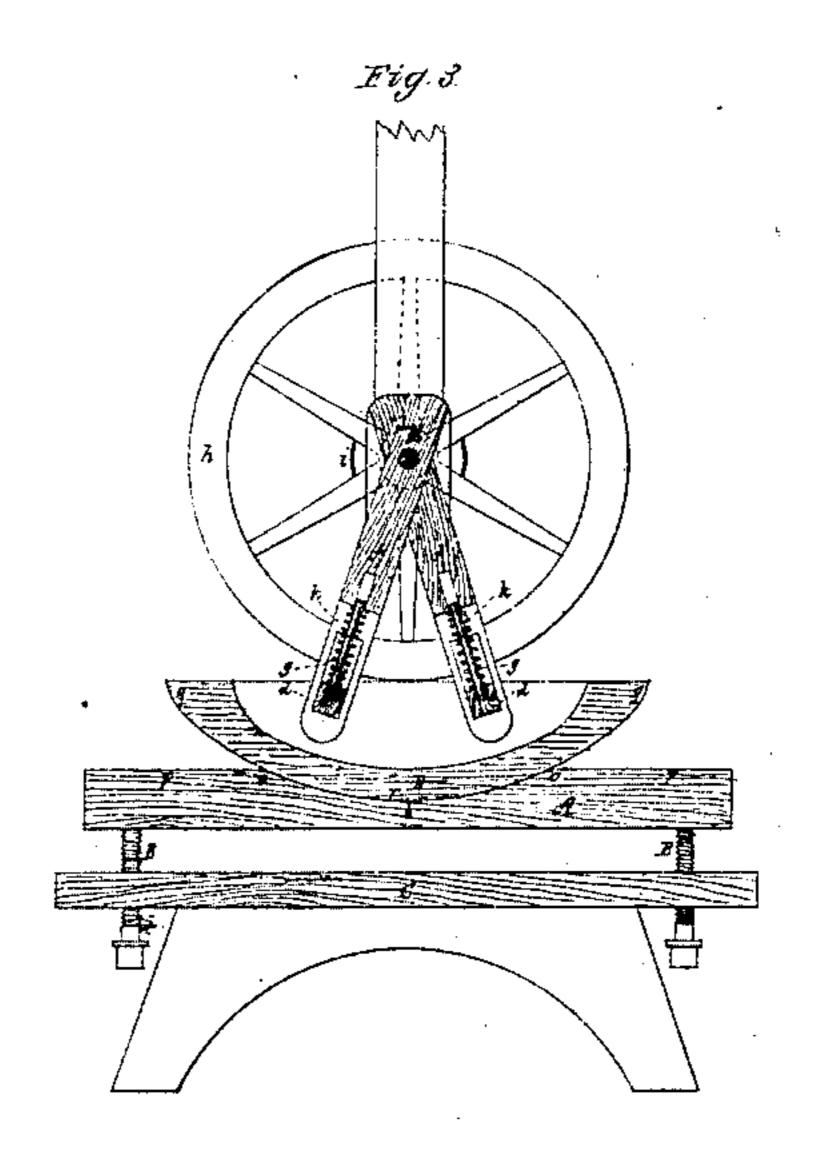
## M.B.Bishop,

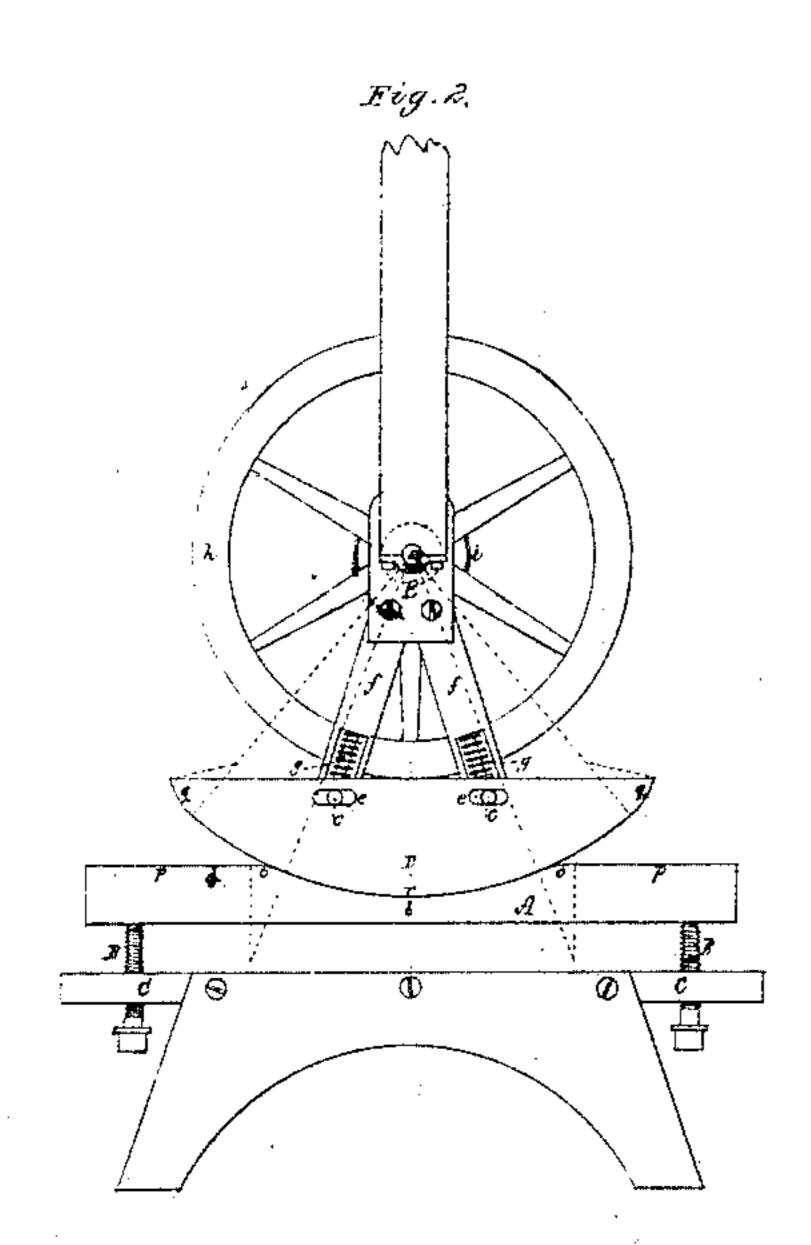
Inespire Leather.

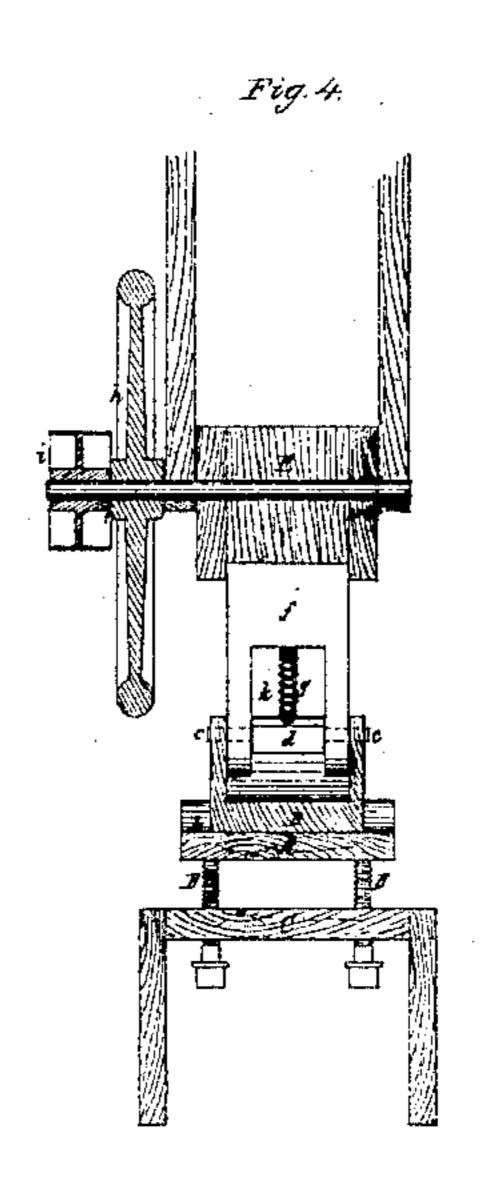
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Palented Oct. 18.18/10.









L. N. Milley

M.B. Bishop.

by his attorney.

Milled

## Anited States Patent Office.

## MILTON B. BISHOP, OF WHITINGHAM, VERMONT.

Letters Patent No. 108,319, dated October 18, 1870.

## IMPROVEMENT IN MACHINES FOR BOARDING LEATHER.

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

To all persons to whom these presents may come:

Be it known that I, MILTON B. BISHOP, of Whitingham, of the county of Windham, of the State of Vermont, have invented a new and useful Machine for Boarding Leather; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view; Figure 2, a side elevation;

Figure 3, a longitudinal section; and

Figure 4, a transverse section of such machine.

In the drawing—

A denotes an adjustable bed, supported by screws, B B B, which are screwed upward through the top of a table or bench, C.

The said bed has a hollow or concavity, b, concentric with the lower surface of the rotary boarder D, which, as shown in the drawing, is a trough, having a convex bottom to work within the concavity of the bed.

At one or either end the concavity of the bed should terminate against a short convexity or convex surface, o, arranged with the concavity b, and the next adjacent flat surface p of the bed, in manner as shown.

The convex surface of the boarder, at one or either end, is to have, near the end, a quicker curve, q, arranged with the main circular curve r, in manner as shown, the dotted lines in fig. 2 exhibiting the radii of curvature of both the bed and the boarder.

Now, were it not for the short convexity o of the bed, and the quicker curve or convexity q of the boarder, arranged with the main curves b and r, in manner substantially as represented, the boarder, on first inserting the leather, would so strike against it, where doubled, as to force the leather out of and off the bed.

The said boarder is supported by four study c c, extended from the opposite ends of two transverse bars d d into four slots e e e e, made in opposite sides of the trough or boarder, in manner as repesented.

The said bars dd, arranged as shown in the drawing, go through and are sustained in radial slots k k, made in two forked arms ff, that are extended radially from a common rotary shaft or head, E, whose pivots or journals are to be properly supported by suitable standards or brackets, so as to enable the head or shaft, with its arms and the boarder, to be simultaneously revolved in a circle.

Each bar d rests against the lower end or ends of one or more springs g, arranged in manner as shown, in the arm, in which the said bar is dispose I.

The upper surface of the hollow of the bed, as well as the lower surface of the boarder, should be lined or covered with India rubber, or other proper elastic or yielding material.

There may be a fly-wheel, h, and a driving-pulley,

i, fixed on the shaft or head of the boarder.

When the machine is at work, a continuous rotary motion is to be imparted to the shaft and the boarder. whereby the latter will, at one movement, be entirely above, and at the next entirely below the shaft.

The boarder, while acting on the leather previously doubled and laid on the bed, will be pressed downward by the springs, and will be able to move longitudinally a little on the supporting studs, so as to admit of it adjusting itself to and properly hold to the leather, in order to draw out the overlapping. portion thereof in a manner to effect the boarding of it.

One half of the skin is to be boarded at a time,

the other half being next boarded.

While the boarder is in or near its highest position the skin is to be applied to the bed, and properly folded and adjusted thereon for being acted on by the boarder while it may be next passing through the lower half or part of its revolution.

After the boarder may have left the bed, and while such boarder may be at or near its greatest altitude, the skin may be again folded and readjusted on the bed, so as to cause the balance of the skin to be boarded during another and the next passage of the

boarder on and over the skin.

I claim—

1. The machine, constructed substantially as described, viz., with the adjustable concave bed A, and with the rotary convex boarder D, arranged together as represented, and with the latter combined with currying-arms f f, and springs g g, by bars d d, studs c c c c, and slots e k, or their equivalents, all arranged as explained, such arms being projected from a rotary shaft or head, and the whole being to operate as and for the purpose hereinbefore specified.

2. In the above-described machine, the boarder and the bed, as made with the differential curved sur-

faces b o g r, as arranged and described.

MILTON B. BISHOP.

Witnesses:

CALVIN BAKER, ROMINA F. BAKER.