(No Model.)

L. A. MERRITHEW.

RAND TURNING MACHINE.

No. 494,378. Patented Mar. 28, 1893.

Fig. 1.

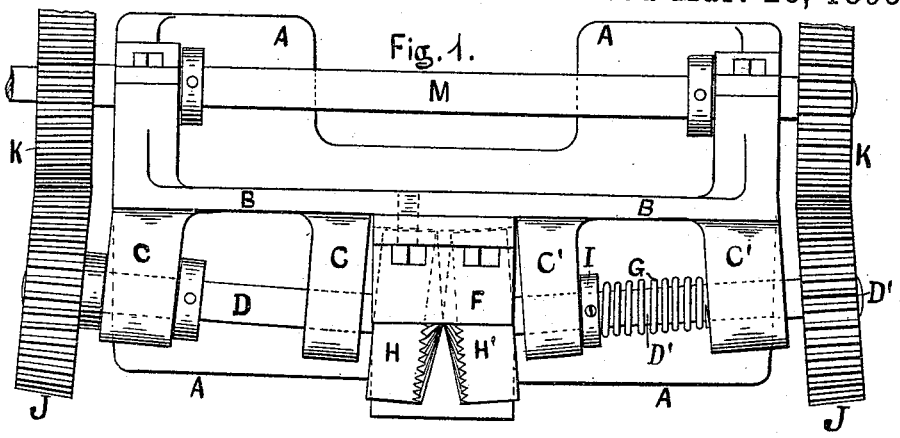


Fig. 2.

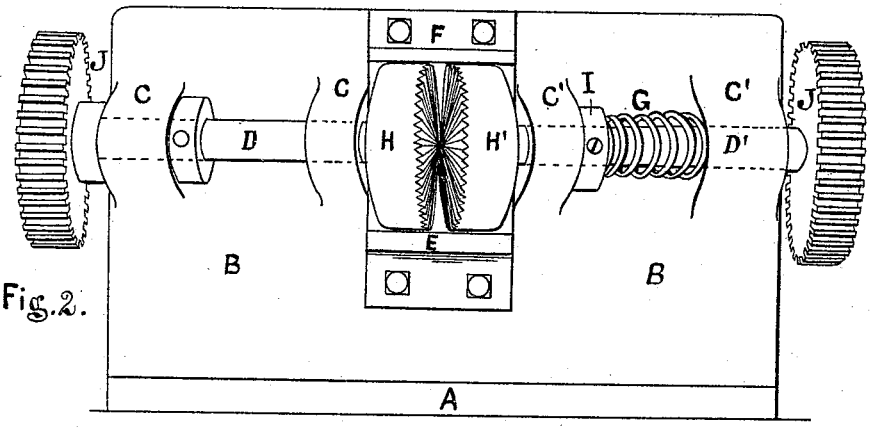
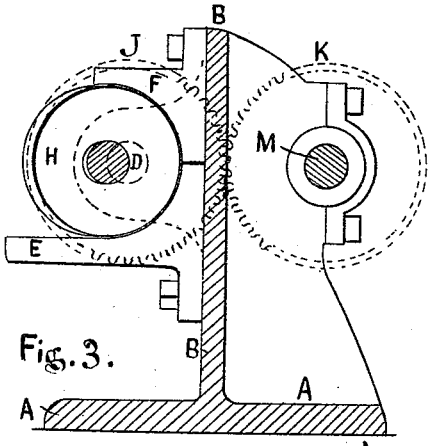


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LEVI A. MERRITHEW, OF BROCKTON, ASSIGNOR OF ONE-HALF TO ERNEST L. DREW, OF BOSTON, MASSACHUSETTS.

RAND-TURNING MACHINE.

SPECIFICATION forming part of Letters Patent No. 494,378, dated March 28, 1893.

Application filed September 28, 1892. Serial No. 447,193. (No model.)

To all whom it may concern:

Be it known that I, LEVI A. MERRITHEW, of Brockton, in the county of Plymouth and State of Massachusetts, have invented an Improvement in Rand-Turning Machines, of which the following is a specification.

The object of my invention is to provide a cheap, simple, convenient, durable and efficient rand turning machine whereby the rands for boots and shoes may be turned in a more rapid manner, and with a greatly reduced amount of friction on the sides of the rands, than by machines heretofore employed for the purpose and now in use, and it consists in the construction, combination, and arrangement of the several parts of the device hereinafter more fully described and specifically set forth in the claims.

To the drawings hereto annexed and which form a part of this specification, reference is made.

Figure 1 represents a top plan of a machine for turning rands, for boots and shoes, embodying my invention. Fig. 2 represents a front elevation of the same. Fig. 3 represents a vertical sectional elevation, showing the rand turning blocks in position.

A represents the main frame of the machine, consisting of a horizontal base plate having a vertical support plate B, provided on its front side with journal bearings C, C, C′, C′, through which pass the two oblique journals, or shafts D, D′, one of which is adapted to move or slide horizontally and is provided with a yielding spiral spring G, one end of which has a bearing against the said journal box C′, and the opposite end against the adjustable collar I, secured on the said shaft D′, whereby the tension or pressure of the said spring may be adjusted, or regulated as may be desired, for the purpose hereinafter more fully described. The outward ends of the said shafts, or journals D, are each provided with a fixed gear wheel J, and which connect with the driving gears K, K, on the horizontal driving shaft M, one end of which is provided with fixed and loose pulleys (not shown) so as to communicate power and motion to the operative parts of the machine as hereinafter described. To the front side of the said vertical support plate B, is removably secured, or bolted, the lower rand turning block E, and the upper rand forming, or turning block F, the lower one E, extending or projecting outward, or forward, some distance beyond the upper one, F, to form a guide or support for the end of the strip of leather to be drawn into the machine by the action of the cone faced heads H, removably secured upon the inward ends of the said oblique shafts D, D′ as shown, their working faces being roughened, milled, or slightly toothed, as shown in Figs. 1, and 2, so as to draw the said leather, or rand material in between the same, the thick outward edge of the rand being drawn into close contact with the interior, or inward segmental faces of the said rand former-blocks E, F, is thereby bent and curved into a semicircle, with its inward thinner edge pressed quite flat, or even, or free from wrinkles, by the driving power applied equally to both sides of the rand stock simultaneously by the action of the said cone faced drive-heads H, as the material passes beneath the same inward. It will be seen that the faces of the same are gradually nearer to each other until the point of their horizontal axial line is reached, where they gradually recede from each other to the corresponding axial line in front, whereby the turned rand is free to drop out from between the faces of the said drive-heads H, as they are rotated downward and forward at their front peripheries, when in operation for the purpose.

I contemplate the removal of the driving cone faced heads H, and the substitution of different sizes, and also the removal and substitution of corresponding sizes of former-blocks E, F, so as to turn various sizes of rands, to meet the requirements of the boot and shoe manufacturers. It will be seen and understood that the yielding head H′, through the action of the said spring G, permits different thicknesses of rands to be turned by the action of the same heads upon opposite sides of such rand stock, or material as may be desired to form.

Having thus described my invention, I claim—

1. A rand turning machine consisting of a frame having two oblique rotary drive-heads, one of which is adapted to yield axially by means of a spring, and a segmental faced former-block partially surrounding the said heads, substantially as described.

2. In a rand turning machine, the combination of two oblique rotary drive-heads, and a segmental faced former-block partially surrounding the said drive-heads, for the purpose set forth.

In witness whereof I hereunto sign my name, this 5th day of July, 1892, in presence of these witnesses.

LEVI A. MERRITHEW.

Witnesses:
SYLVENUS WALKER,
STEPHEN E. TEMPLE.