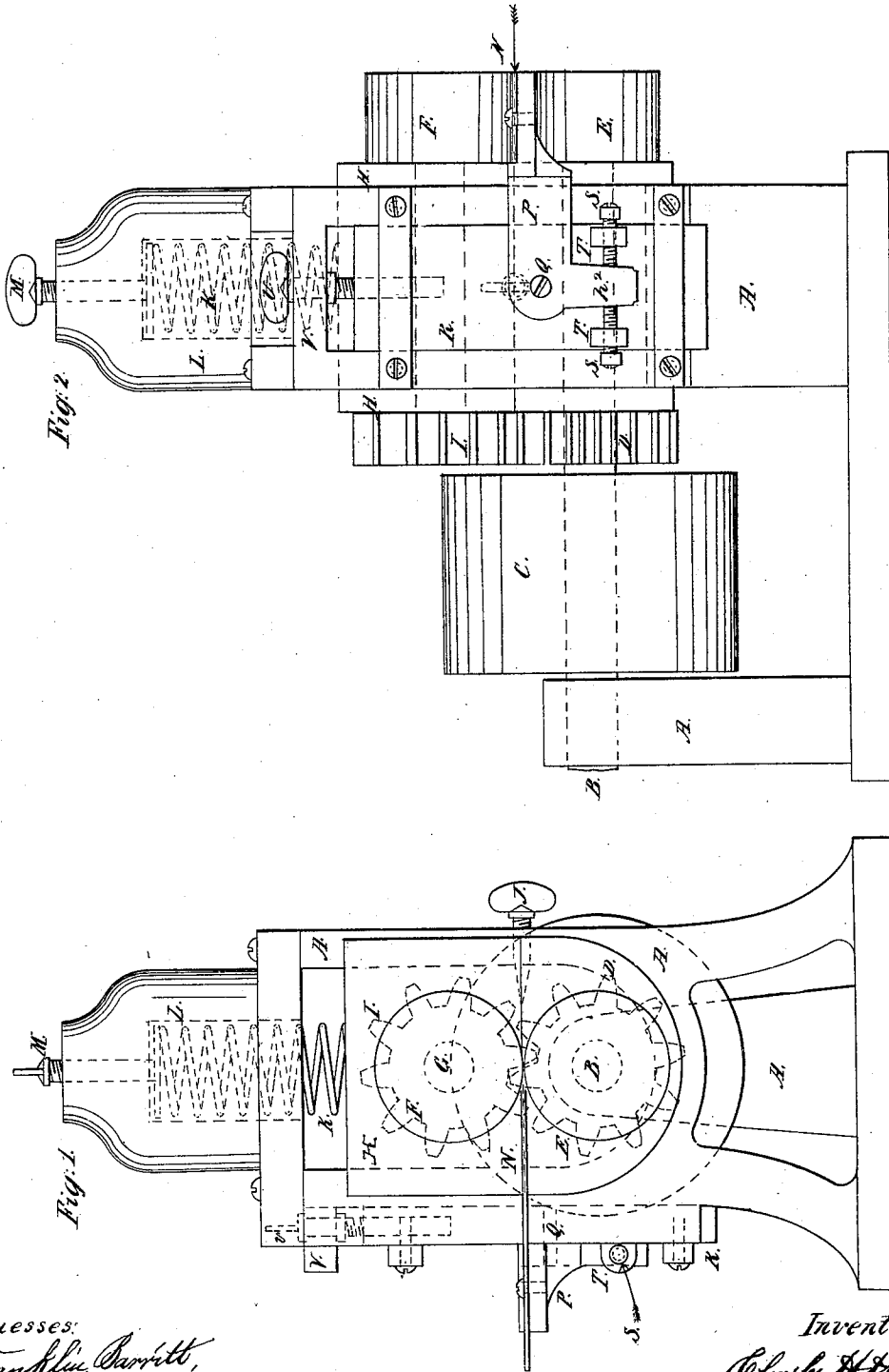


C. H. Helms.

Leather-Scarving Machine.

N^o 100,890.

Patented Mar. 15, 1870.



Witnesses:
Franklin Barrett,
Charles E. Smith

Inventor:
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United States Patent Office.

CHARLES H. HELMS, OF POUGHKEEPSIE, NEW YORK.

Letters Patent No. 100,890, dated March 15, 1870.

IMPROVEMENT IN LEATHER-SCARFING MACHINES.

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

To all whom it may concern:

Be it known that I, CHARLES H. HELMS, of Poughkeepsie, Dutchess county, and State of New York, have invented certain new and useful Improvements in Scarfing-Machines; and I do hereby declare that the following is a full description of the same.

The nature of my invention consists—

First, in the use of a wedge-pointed screw, in combination with the side of the frame and adjustable roller-box, for the purpose of controlling the set of the rollers between which the leather is scarfed.

Second, in the method of adjusting the set of the knife at any required pitch or bevel between the scarfing-rollers, by means of an angular lever, adjustable knife-holder, in combination with an adjustable vertical sliding plate.

Third, in the method of regulating the pressure of the adjustable feed-roller, by means of a spiral spring secured in a box on top of the roller-frame, and by means of a set-screw operating on the adjustable roller-box, to keep the roller down upon the leather with an elastic pressure while passing between the scarfing rollers, and being acted upon by the knife; but, to describe my invention more particularly, I will refer to the accompanying drawings forming a part of this specification, the same letters of reference, wherever they occur, referring to like parts.

Figure 1 is a front side view of the scarfing-machine.

Figure 2 is a side view of the same.

Letter A represents the frame of the machine, in which is arranged a horizontal propelling-shaft, B, having on its back end a driving-pulley, C, and a driving cog-wheel, D, and its front end a roller, E, as the lower roller of the two scarfing-rollers.

Directly above this lower roller is a second roller, F, arranged or secured on the end of an axis, G, (working in an adjustable sliding box, H, secured between the cheeks or sides of the frame A,) and having on its back end a cog-wheel, I, to engage into the cog-wheel D, so that a simultaneous and uniform rotary motion will be given to the scarfing-rollers.

For the purpose of adjusting the set of the rollers to different thicknesses of leather, a wedge-pointed screw, J, or other equivalent device, is inserted through the side of the frame A on a line with the lower edge of the sliding box H, so that, by graduating the set of the screw, the box will be elevated, and with it the roller secured therein, and thus accommodate the admission of leather of any thickness.

To keep the pressure of the roller uniform on the leather, and to accommodate unequal thicknesses of

it, a spiral spring, K, is secured in a box or cap, L, attached to the frame A, so as to admit of the lower end of the spring to press upon the upper side of the box H, and thus, by the set of the adjusting-screw M, any amount of tension may be given to the spring to hold the leather securely while being scarfed by the knife N.

This knife is secured by a set-screw to an adjustable holder, P, made in the shape of a right-angled lever, and secured by a center-pin or screw, Q, to a vertically-adjusting sliding plate, R, working in guide-ways in the side of the frame A. The object of this right-angled lever-shaped knife-holder is to admit of the set of the edge of the knife obliquely across the space between the upper and lower rollers, so as to scarf or cut away one edge of the piece of leather to any thickness required; and to accomplish this object, two adjusting-screws, S, are arranged in ear pieces T on the sliding-plate R, at opposite sides of the pendant arm p^2 of the knife-holder P, so that, by the set of these two screws, the edge of the knife will be set to any inclination across the space between the scarfing-rollers desired.

To elevate or depress the knife according to the thickness of the piece of leather to be operated on, the sliding plate R is made adjustable up and down by means of a set-screw, U, working through a stationary shoulder, V, at the head of the frame A, and into a female screw secured to the upper end of the sliding plate.

Having now described my invention, I will proceed to set forth what I claim and desire to secure by Letters Patent of the United States:

1. In a machine for scarfing leather, the hereinbefore-described manner of regulating the thickness of the scarf by means of the wedge-pointed screw or equivalent device, acting upon the sliding box H, carrying the roller F, substantially as hereinbefore set forth.

2. The adjustable knife-holder P, when made as hereinbefore described, in combination with the adjusting-screws S, and adjustable sliding plate R, all arranged and operating substantially as described.

3. In combination, the spiral spring K, sliding-box H, and wedge-pointed screw J, for the purpose of regulating the pressure of the roller F on the piece of leather while being scarfed.

CHARLES H. HELMS.

Witnesses:

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CHARLES L. BARRITT.