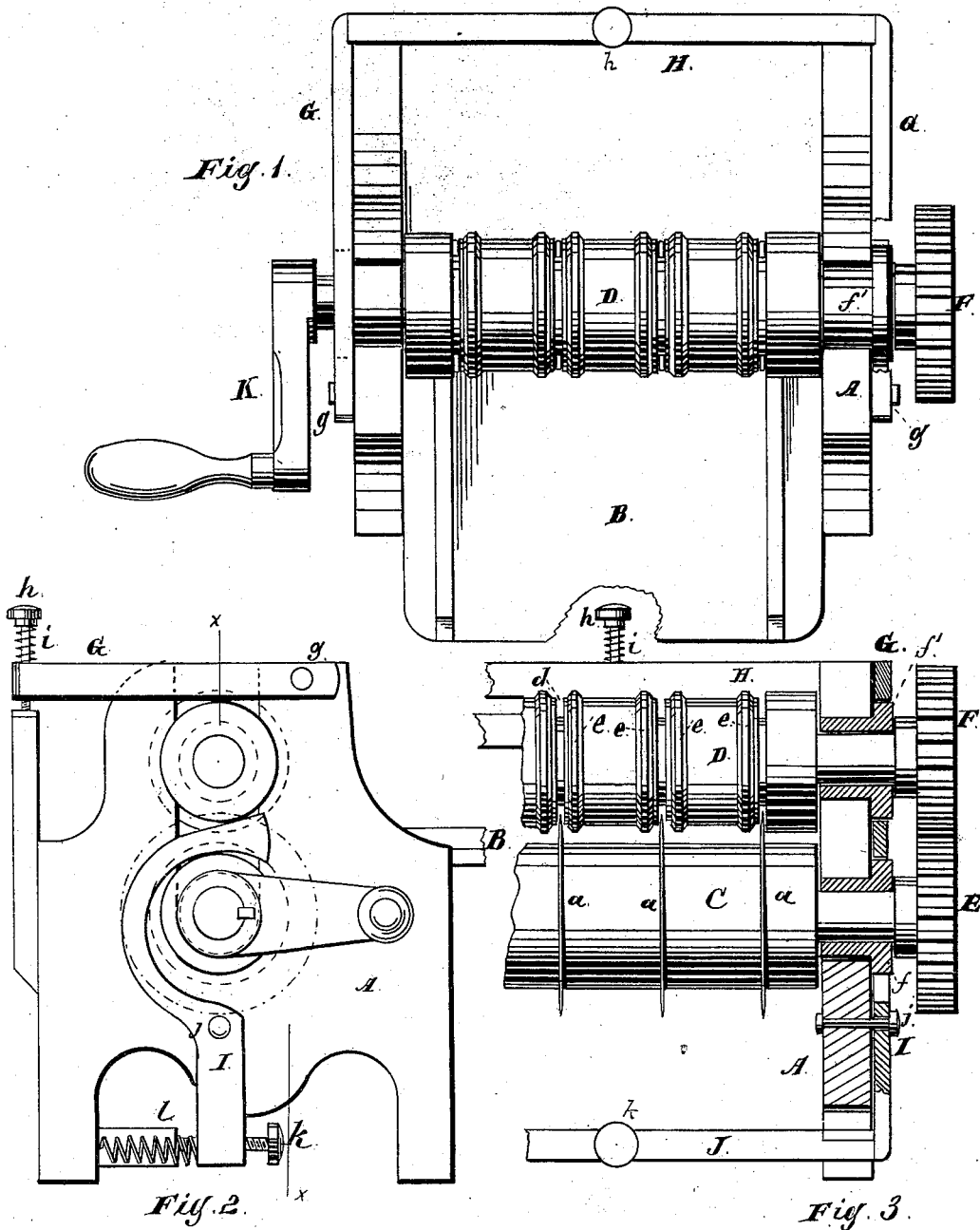


E. J. BLOOD.
Machine for Cutting and Creasing Straps.
No. 221,024. Patented Oct. 28, 1879.



Witnesses:
J. L. Smith.
W. Bond.

Inventor:
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UNITED STATES PATENT OFFICE.

EDWIN J. BLOOD, OF MUKWONAGO, WISCONSIN, ASSIGNOR TO HIMSELF,
GEORGE LANZ AND CHARLES A. WHITNEY, OF CHICAGO, ILLINOIS, AND
PHILIP DICK, OF ST. PETER, MINNESOTA.

IMPROVEMENT IN MACHINES FOR CUTTING AND CREASING STRAPS.

Specification forming part of Letters Patent No. **221,024**, dated October 28, 1879; application filed
November 19, 1878.

To all whom it may concern:

Be it known that I, EDWIN J. BLOOD, of Mukwonago, Waukesha county, State of Wisconsin, have invented a new and useful Improvement, being a Machine for Cutting and Creasing Straps, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a plan; Fig. 2, an end elevation; Fig. 3, a vertical section at *x* of Fig. 2, some parts being shown in elevation.

It is customary to crease leather straps which are used in harness-making and for many other purposes, and this work is usually done by hand.

The object of my invention is to provide suitable and convenient means for cutting or slitting a side of leather into straps and creasing the straps at the same time, which I accomplish by the means hereinafter described; and its nature consists in providing a series of knives beneath a feeding-table; in combining the revolving cutters and their shaft with a creasing upper roller and the feed-table; and in the combination of parts hereinafter claimed as new.

In the drawings, A A represent parts of a suitable frame. B is a table, on which the leather to be cut and creased is placed. C is a roller carrying a number of circular knives, *a*. This roller runs in the collars *f*, through which its shaft passes.

D is another roller above C. Its shaft passes through collars *f'*. This roller is provided with a series of grooves, *d*, into which the edges of the knives *a* enter, and also with a series of projections, *e*, for creasing straps as they are cut.

As shown, the collars *f f'*, which are, in fact, the bearings for the shafts of the rollers C D, are located in slots in the frame, the collars *f* being at the lower ends of such slots, the upper ends of which are open to permit the ready insertion of the collars and rollers.

The roller D should be vertically adjustable relatively to C, as may be required by different thicknesses of leather.

G G are two arms, pivoted to the frame at

g g'. They pass over the collars *f'*, and to their outer ends the cross-piece H is secured.

h is a screw, which enters a fixed nut upon the rear portion of the machine after passing through H; and *i* is a coiled spring encircling the upper part of the shank of the screw *h*. By means of this screw and spring the pressure of the arms G on the roller D can be adjusted.

On each end of the frame is pivoted, at *j*, a curved arm, I, which partly encircles the collar *f* and passes between the two collars *f f'*. The inner portion or edge of this curved arm is designed to touch the lower collar, *f*, though the arm be placed in different positions; but the end of this arm which is between the collars is so formed that by moving the arm I on its pivot *j* the distance between the collars *f f'* can be adjusted. The lower ends of these arms I are connected firmly to a cross-bar, J.

k is a screw, by means of which the position of the arms I can be adjusted. This screw passes through a nut in J, and its inner end comes in contact with some fixed part of the frame.

l is a coiled spring. One end is connected to the frame, the other to the bar J, its office being to hold the bar and arms I in any given position. This might be done in some other known manner.

K is a crank; but the machine may be driven in any suitable manner.

In preparing the rollers C D, the knives or cutters *a* and the grooves *d* in D must be at such distances apart as required by the width of the straps.

In use a piece of leather which is to be cut into straps is to be placed on the table B, and being pushed along by hand, it will pass between the rollers C D and be cut up into strips. At the same time the projections *e* will make creases in the strips, the cutting and creasing both being performed at a single operation, saving much time and labor as compared with present methods.

It is desirable that the feed-roller D be at a little distance from the roller C, to facilitate the entry of the leather between the two roll-

ers, and this is the chief object of using the curved arms I; and the distance between these two rollers can be varied with varying thicknesses of leather by means of these arms I and devices connected therewith. The machine could be successfully used without these arms; but it will be desirable to have some support for the roller D.

The collars *f f'* are flattened on opposite sides, so that they cannot turn in the slots in which they are located.

It is evident that the roller D might be provided with various ornamental devices to be impressed upon the leather.

After the leather has entered between the rollers it will be drawn along by the action of the rollers.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. The roller or shaft C, having a series of cutters, *a*, operating from below, in combination with the feed-table B and the upper creasing-roller, D, the shaft C operating as a support against the creasing devices, substantially as specified.

2. The levers G and cross-bar H, in combination with the frame A, rollers G D, spring *i*, and adjusting-screw *h*, for adjusting the space and pressure, substantially as described.

3. The curved arms I and cross-piece J, in combination with the rollers C D, substantially as and for the purpose specified.

EDWIN J. BLOOD.

Witnesses:

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