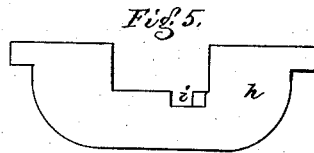
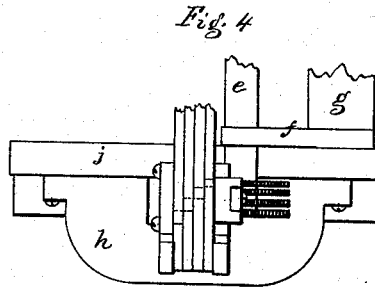
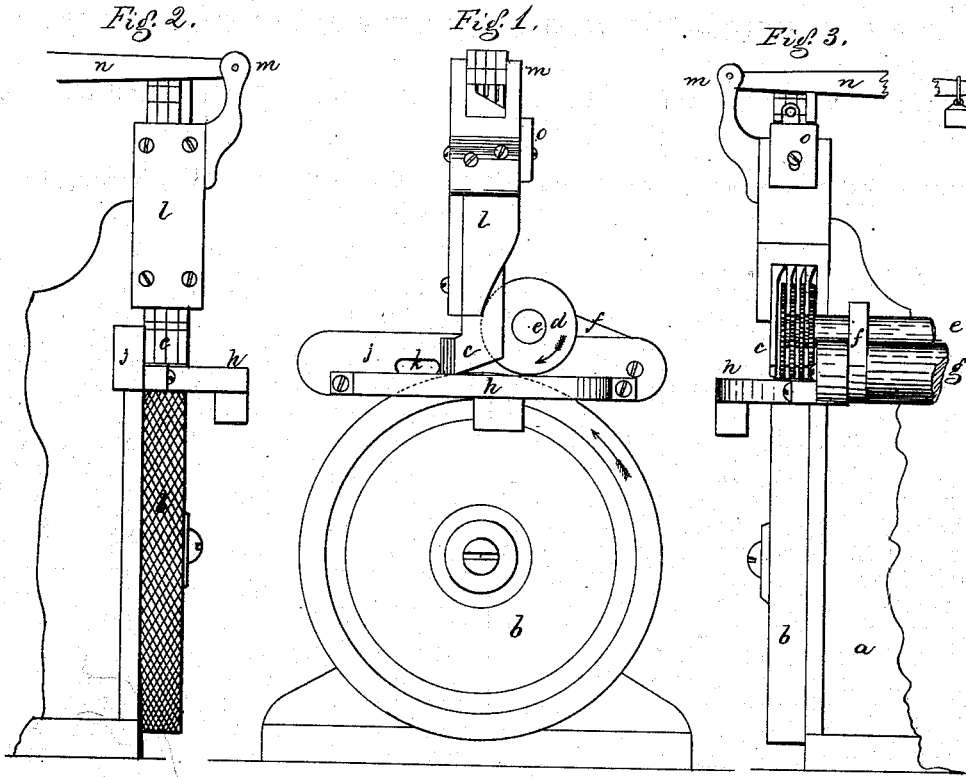


J. W. FIFIELD.

Skiving and Welt-Splitting Machine.

No. 165,412.

Patented July 13, 1875.



WITNESSES.
L. H. Latimer,
Wm Pratt.

INVENTOR.
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PER *Erving Langory* ATTYS.

UNITED STATES PATENT OFFICE.

JOHN W. FIFIELD, OF NORTH BROOKFIELD, MASSACHUSETTS.

IMPROVEMENT IN SKIVING AND WELT-SPLITTING MACHINES.

Specification forming part of Letters Patent No. 165,412, dated July 13, 1875; application filed April 23, 1875.

To all whom it may concern:

Be it known that I, JOHN W. FIFIELD, of North Brookfield, in the county of Worcester and State of Massachusetts, have invented an Improved Skiver and Welt-Splitter, of which the following is a specification:

This invention is an improvement upon the machine patented August 6, 1872, under the number 130,330, for the invention of Curtis Stoddard and Henry J. Newman, by which improvement the feeding-power of the machine to and against the knife or knives is increased, by which the machine is made capable of cutting leather into strips of uniform width, as well as of skiving it, and by which it can split such strips into two, each of triangular section, at the same time that the strips are cut from wider pieces, or after they are so cut, and by which the amount of stress upon each or upon all the parts of the sectional presser-foot is readily modified in amount, or is removed altogether.

Figure 1 of the drawing is a front view, showing my improvement. Figs. 2 and 3 are side views, and Fig. 4 is plan. The detail Fig. 5 is a plan view of the removable auxiliary bed removed from the machine.

The frame *a*, feed-wheel *b*, and sectional presser-foot *c* are similar to those shown in the aforesaid patent, except that each section of the presser-foot is reduced in thickness, so as to form recesses to admit in the recesses a series of feeding wheels or disks, serrated on their edges and given such rotation by means of suitable gearing as will make the circumferential movement of the disk feed-wheels *d* the same with that of the wheel *b*, the axis of rotation of wheels *b* and *d* being parallel. The shaft *e*, which carries the feed-wheels *d*, is journaled in suitable bearings made in the arms *f* of the rocker-shaft *g*, so that the feed-wheels *d* can rise and fall to accommodate different thicknesses of material on which they act. These feed-wheels bear upon the stock which passes under them with the weight of themselves and of the shaft on which they are mounted, and the degree of pressure exerted may be increased or diminished at will by the adjustment of a weight or spring. By recessing the parts of the sectional presser-foot the bearing of the series of feed-wheels *d* is brought nearer to the bearing-line of the sectional

presser-foot than would otherwise be practicable without an injurious diminution of the diameter of the feed-wheels *d*. The bed *h* is used to support wide strips of leather, which are to be reduced to narrower strips as they are fed by the joint action of the feed-wheels *b* *d* against a knife which is secured and properly adjusted in the recess in the bed, shown at *i*, the distance between the edge of the knife set at *i*, and the face of the piece *j*, determining the width of the strips produced by the machine; or a gage or gage-pieces adjustable with reference to the stripper-knife may be secured either to the bed *h* or to the piece *j*. To this piece *j*, and projecting through the slot *k* therein, and with suitable provision for the adjustments needed, is secured the knife, which, cutting on an angle to the face of the feed-wheel *b*, skives the edges of leather forced against its edge under the presser *c* by the action of the feed-wheels *b* and *d*, or splits into two pieces, of triangular cross-sectional shape, pieces or strips of leather. The arrangement of this cutter projecting through slot *k*, and its purposes and applications, are the same as in the aforesaid patent; but the addition of the feed and presser wheels *d* enable me at the same time to cut wide strips into narrow ones, and the narrow ones each into two of triangular cross-section. As the bed *h* is adjustably attached, it and the cutter therewith connected can be removed at pleasure and the feed-wheels *d* can be lifted and sustained out of position for action when deemed desirable.

Convenience in means for modifying the degree of pressure exerted on the stock by each part of the sectional presser-foot is a desideratum which I arrive at as follows: To the top of the case *l*, which holds and guides the presser-foot shanks, is fixed a fulcrum, *m*, for the levers *n*, each of which bears on a projection from one of the presser-foot shanks, the projections being arranged as seen in dotted lines, Fig. 4. On these levers, as on scale-beams, weights may be hung, so as to be adjustable at pleasure with reference to the fulcrum *m*, or, of course, springs may be substituted for the weights, and may like them be adjusted as to position, or the stress upon them may be modified or increased or decreased.

It will be seen that pressure may be removed

from any one or any number of the sections of the presser-foot.

To keep the presser from absolute contact with the serrations of the feed-wheel *d* a shoulder on the upper end of the shank of each section of the presser rests on a flanged piece, *o*, which, when lifted by any suitable means, raises all the sections of the presser-foot. If the wheel *b* is covered with rubber, as explained in the patent referred to, it is still equally important to keep the presser-foot from the acting face of the wheel.

I claim—

1. The combination, with the main and auxiliary feed-wheels, of the sectional presser-foot, substantially as described.

2. The recessed sectional presser-foot combined with the auxiliary feed-wheels, and ar-

ranged with relation to each other substantially as described.

3. The combination, with the sectional presser-foot and auxiliary feed-wheels, of a series of levers, adapted to bear upon the sections of the foot with like or with varying degrees of force, substantially as described.

4. The combination of the removable knife-bearing table with the main and auxiliary feed-wheels and presser-foot, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. FIFIELD.

Witnesses:

CURTIS STODDARD,
JAMES MILLER.