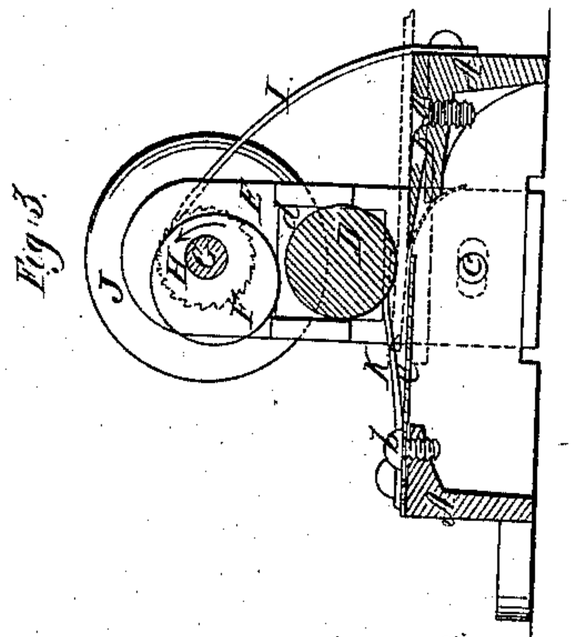
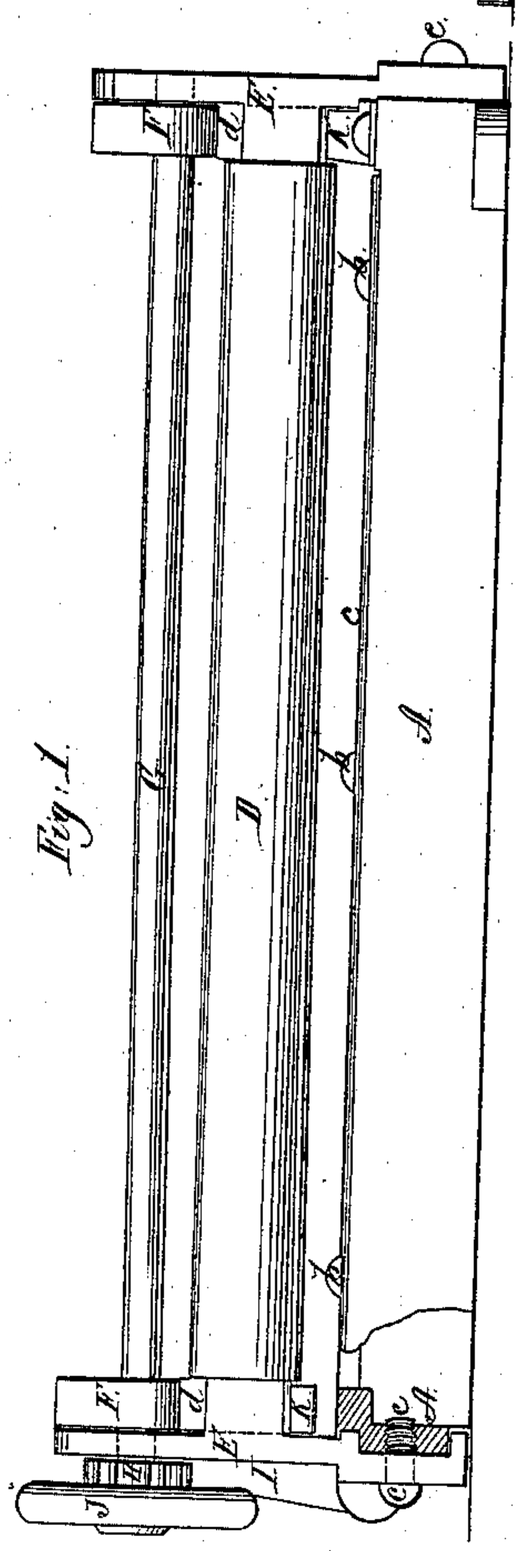
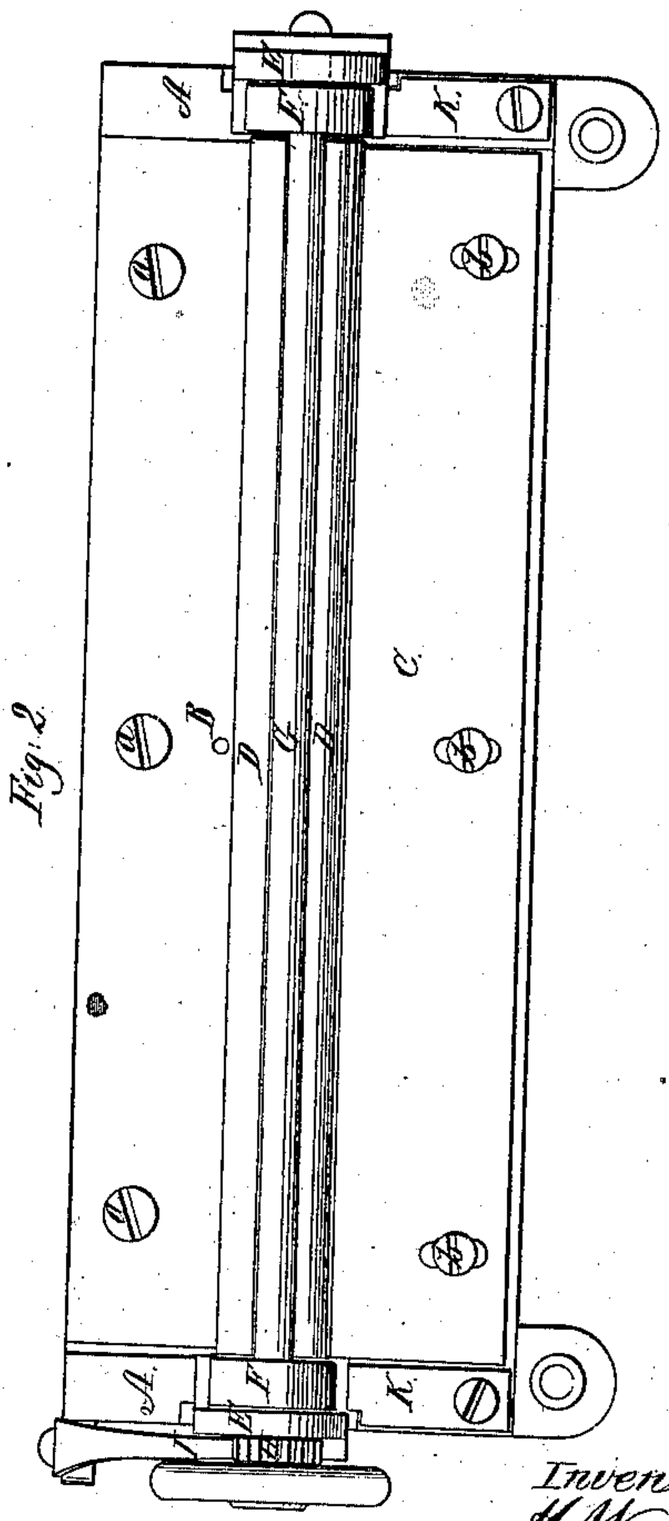
H. Wing,

Splitting Leather,

No. 39695. Patented Aug. 25, 1863.







Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

HORACE WING, OF BUFFALO, NEW YORK.

IMPROVEMENT IN MACHINES FOR SPLITTING LEATHER.

Specification forming part of Letters Patent No. **39,695,** dated August 25, 1863.

To all whom it may concern:

Be it known that I, HORACE WING, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Machines for Splitting Leather; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of a machine with my improvements. Fig. 2 is a plan of the same. Fig. 3 is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists, first, in the employment, for adjusting the gage-roller at the proper distance from the plane of the edge of the splitting-knife, according to the thickness to which the skin is to be reduced, of a pair of eccentrics or cams attached to the same shaft, and arranged to act, one upon each of the journal-boxes of the said roller, whereby the uniform adjustment of both ends of the said roller is insured and the difficulty of adjusting the said roller correctly by separate adjustments—such as the screws commonly employed—at each end is overcome.

It also consists in making the standards or housings which contain the journal-boxes of the gage-roller adjustable to bring the said roller more or less over the edge of the splitting-knife, whereby, by obviating the necessity of adjusting the knife, I am enabled to keep the knife better secured against springing or accidental displacement.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the bed-plate of the machine, having firmly screwed down to its back part the splitting-knife B, which is of ordinary construction, except that the holes provided in it for the reception of the screws *a a*, which secure it to the bed, are only large enough for the reception of the screws, and not elongated, as when the knife is intended to be adjustable.

C is the yielding plate which supports the skin on its way under the gage-roller to the edge of the knife, attached to the front part of the bed-plate by screws *b b*, and made adjustable toward and from the edge of the knife.

D is the cylindrical gage-roller; *d d*, its journal-boxes, and E E the standards or bearings, in which the said boxes are fitted in such manner as to be capable of sliding up and down therein, the said standards or housings being firmly secured by screws *c c* to the ends of the bed-plate.

G is a shaft, arranged above the roller in suitable bearings in the upper parts of the housings, parallel with the bed-plate and face of the knife, and having secured to it the two precisely similar eccentrics or cams F F, which are situated directly over the boxes *d d*.

This shaft is furnished at one end with a hand-wheel, J, by which to enable it to be turned for the purpose of bringing the eccentrics or cams into action upon the journal-boxes, and thereby adjusting the roller at the proper distance from the edge of the knife; and the said shaft has also secured to it a ratchet-wheel, H, which is engaged by the point of a spring-pawl, I, secured to the bed-plate for the purpose of preventing the said shaft and its cams from turning in the opposite direction to the arrow shown in Fig. 3. K K are springs secured to the bed-plate and pressing upward against the journal-boxes *d d* for the purpose of keeping them always in contact with the eccentrics.

By turning the shaft G in the direction of the arrow shown in Fig. 3 the two eccentrics are caused to press down the two journal-boxes, and so depress the roller D and bring it nearer to the knife, and by turning the said shaft in the opposite direction the eccentrics permit the springs to raise the journal-boxes and the roller; and, as the two cams are both alike and set in corresponding positions on the shaft, which is parallel with the knife, the roller, if parallel with the knife in any position, will be kept parallel therewith in all positions, both ends of the roller being always raised and lowered in an exactly corresponding degree, and the skin will be reduced to a uniform thickness by the action of the knife.

The standards E E are so fitted to the ends of the bed-plate, as shown at the left-hand end of Fig. 1, where the portions of the bed-plate and one standard are shown in section, that while they are prevented from moving vertically they can be moved back and forth parallel with the face of the knife to adjust

the roller more or less over the edge of the knife, and the holes provided in the said standards for the screws *c c* are elongated horizontally to permit such adjustment.

By thus providing for the adjustment of the roller the necessity for adjustment of the knife is obviated, and facility is afforded for securing the knife more firmly in place than when it is made adjustable.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The employment, for adjusting the gage-roller D at a proper distance from the plane of the edge of the splitting-knife, of a pair of eccentrics or cams, F F, attached to the same shaft, and arranged to operate one upon each of the journal-boxes of the rollers, substantially in the manner and for the purpose herein specified.

2. Making the standards or housings E E, which contain the roller journal-boxes, adjustable to bring the roller more or less over the edge of the knife, substantially as and for the purpose herein specified.

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Witnesses:

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