

A. M. L. GROFF & J. A. MARVEL.
Machinery for Finishing Leather.

No. 159,092.

Patented Jan. 26, 1875.

Fig. 1

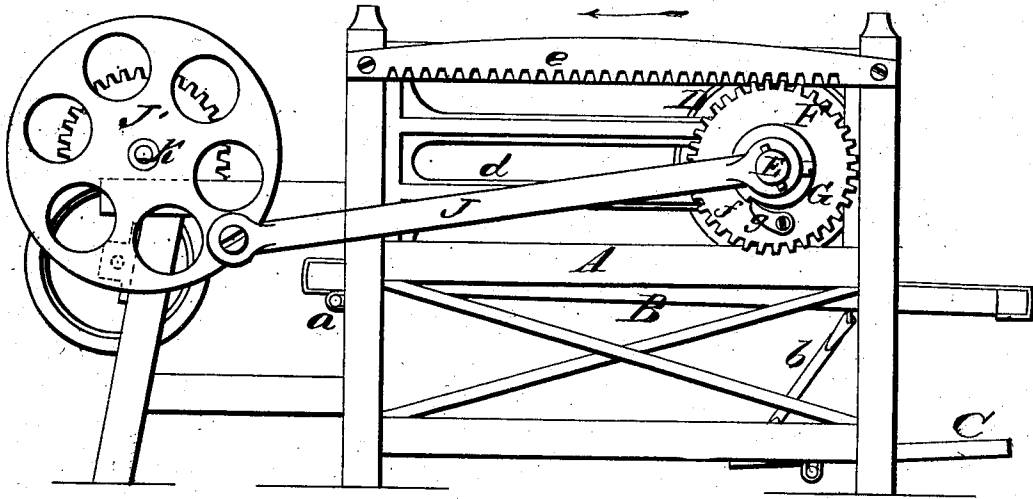
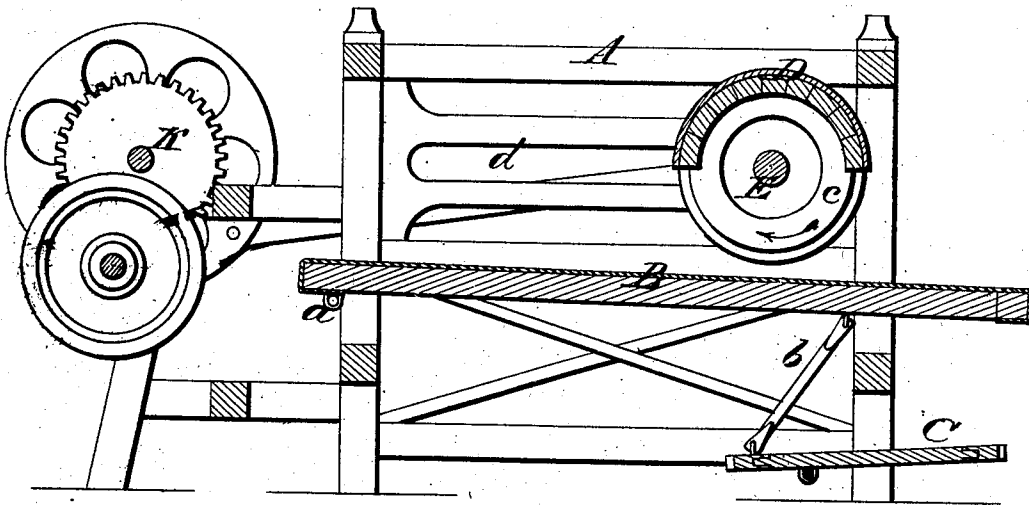


Fig. 2



WITNESSES

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Fig. 3

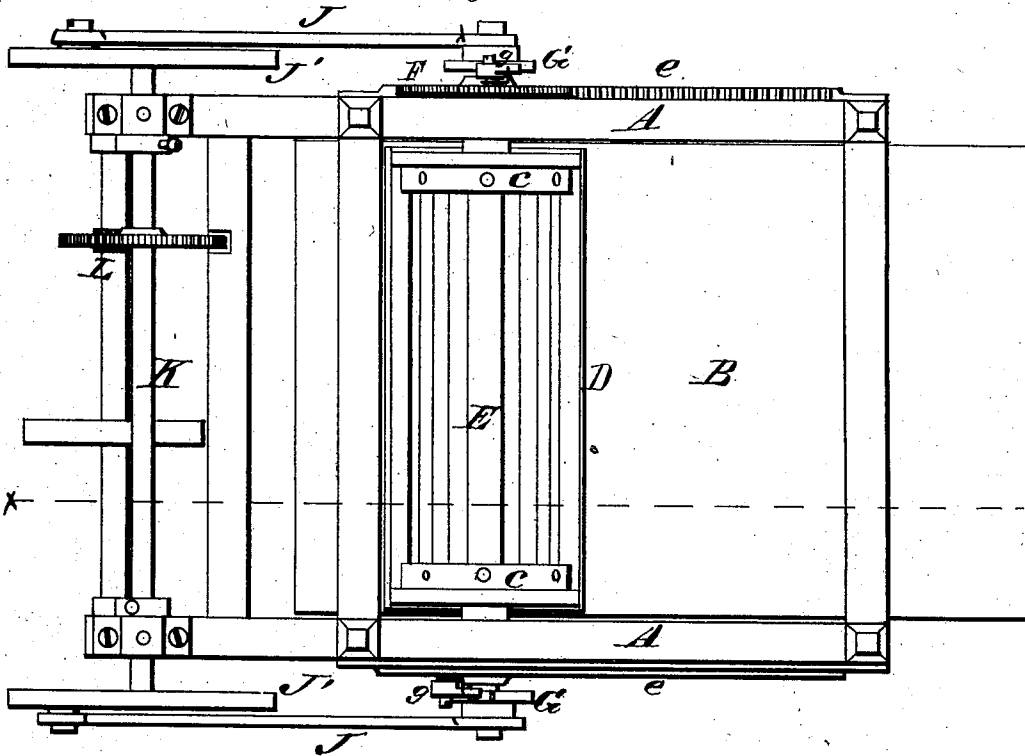
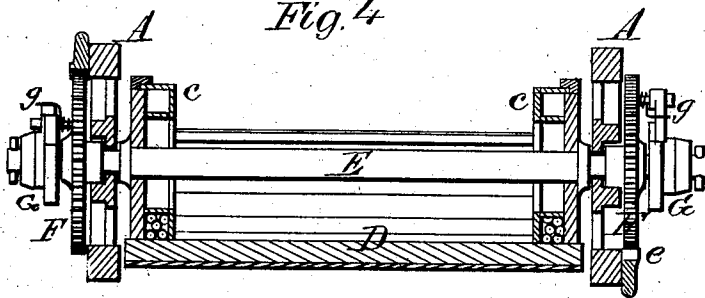


Fig. 4



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UNITED STATES PATENT OFFICE.

AUGUSTUS M. L. GROFF AND JOHN A. MARVEL, OF WILMINGTON, DEL.

IMPROVEMENT IN MACHINERY FOR FINISHING LEATHER.

Specification forming part of Letters Patent No. 159,092, dated January 26, 1875; application filed November 7, 1874.

To all whom it may concern:

Be it known that we, AUGUSTUS M. L. GROFF and JOHN A. MARVEL, of Wilmington, in the county of New Castle and State of Delaware, have invented a new and valuable Improvement in Morocco and Leather Finishers; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of our leather-finishing machine. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a plan view. Fig. 4 is a transverse sectional view of the same.

This invention has relation to machines which are designed for pebbling, graining, and softening morocco and all other kinds of leather; and it consists in an oscillating semi-cylindrical rubber, which also receives a rectilinear reciprocating motion bodily, in combination with an adjustable table, which is arranged beneath this rubber and adapted for receiving the leather which is to be treated, as will be understood from the following description.

In the annexed drawings, A designates the frame of the machine, and B the table on which the leather to be treated is applied. This table is hinged at *a* to the frame A, and connected by its free end to a treadle, C, by means of rods *b*, so that the attendant can raise the table with the work on it, and apply any desired pressure, and vary the pressure as the nature of the work requires. D designates a semi-cylindrical rubber, which is properly covered, and which is constructed with hollow heads *c c*, containing shot or other movable weights. This rubber D is made fast on a horizontal shaft, E, which plays between guideways *d*, secured in the frame A at right angles to the shaft E. Where the shaft E plays between the guideways it is annularly grooved, for preventing endwise play of this shaft. F F designate toothed wheels, which

are applied loosely on the shaft E, and which engage with racks *e e*, on the outer sides of the frame A. G G designate cam-shaped plates, which are constructed with shoulders *f* on their peripheries, and which are keyed on the shaft E outside of the wheels F F.

My object is to communicate a partial rotary motion to the semi-cylindrical rubber D, while moving over the table in the direction indicated by the arrow in Fig. 1, then to turn the rubber over during the return stroke, and bring its convex side into play again for another working stroke. This I do by pivoting to the faces of the wheels F pawls *g g*, which engage with the two shoulders *f* on the plates G, and turn the rubber over while it is making its back stroke to the front of the table. During the forward strokes of the rubber only one of the pawls *g* act, which causes it to turn in the direction indicated by the arrow in Fig. 2. The rubber receives a reciprocating motion backward and forward over the table B, by means of pitman-rods J J, wheels J' J', and a shaft, K, which latter receives motion from a pinion on a shaft, L.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a machine for pebbling, graining, and softening leather, the semi-cylindrical rotary rubber, D, having an oscillating rectilinear and reciprocating motion, in combination with an adjustable table, B, which is arranged beneath said rubber, substantially as and for the purpose set forth.

2. The semi-cylindrical rubber D, the axis of which is provided with cog-wheels F F and notched cams G G, in combination with the racks *e e*, pawls *g g*, wheels J' J', and pitman J J, substantially as and for the purpose set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

AUGUSTUS M. L. GROFF.
JOHN A. MARVEL.

Witnesses:

CHAS. E. FRITZ,
JACKSON JONES.