

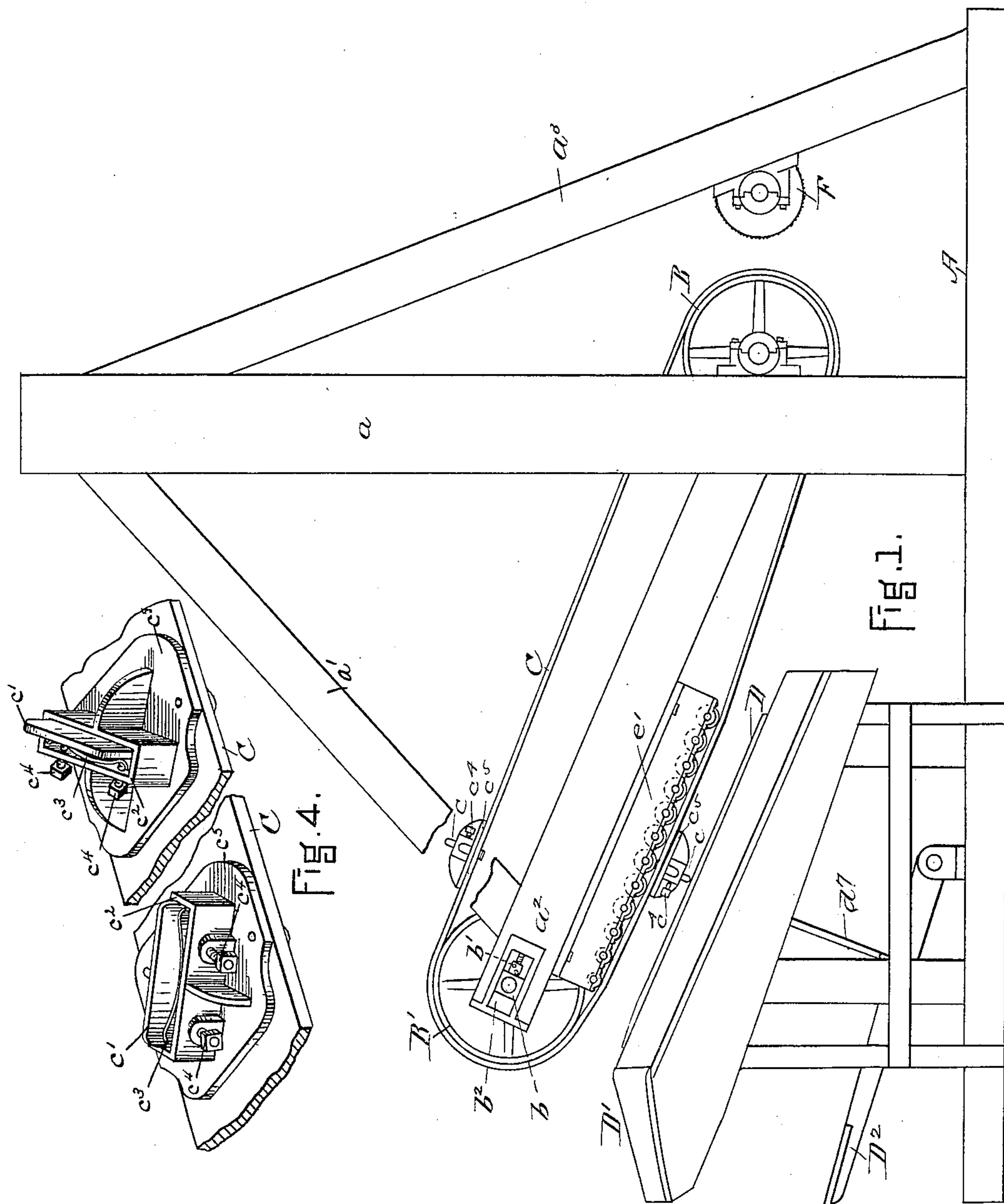
(No Model.)

2 Sheets—Sheet 1.

E. A. CURRY.  
LEATHER DRESSING MACHINE.

No. 356,191.

Patented Jan. 18, 1887.



WITNESSES.

J. M. Dolan  
Fred. B. Dolan

INVENTOR.

Edmund A. Curry  
by his attys  
Charles T. Raymond

(No Model.)

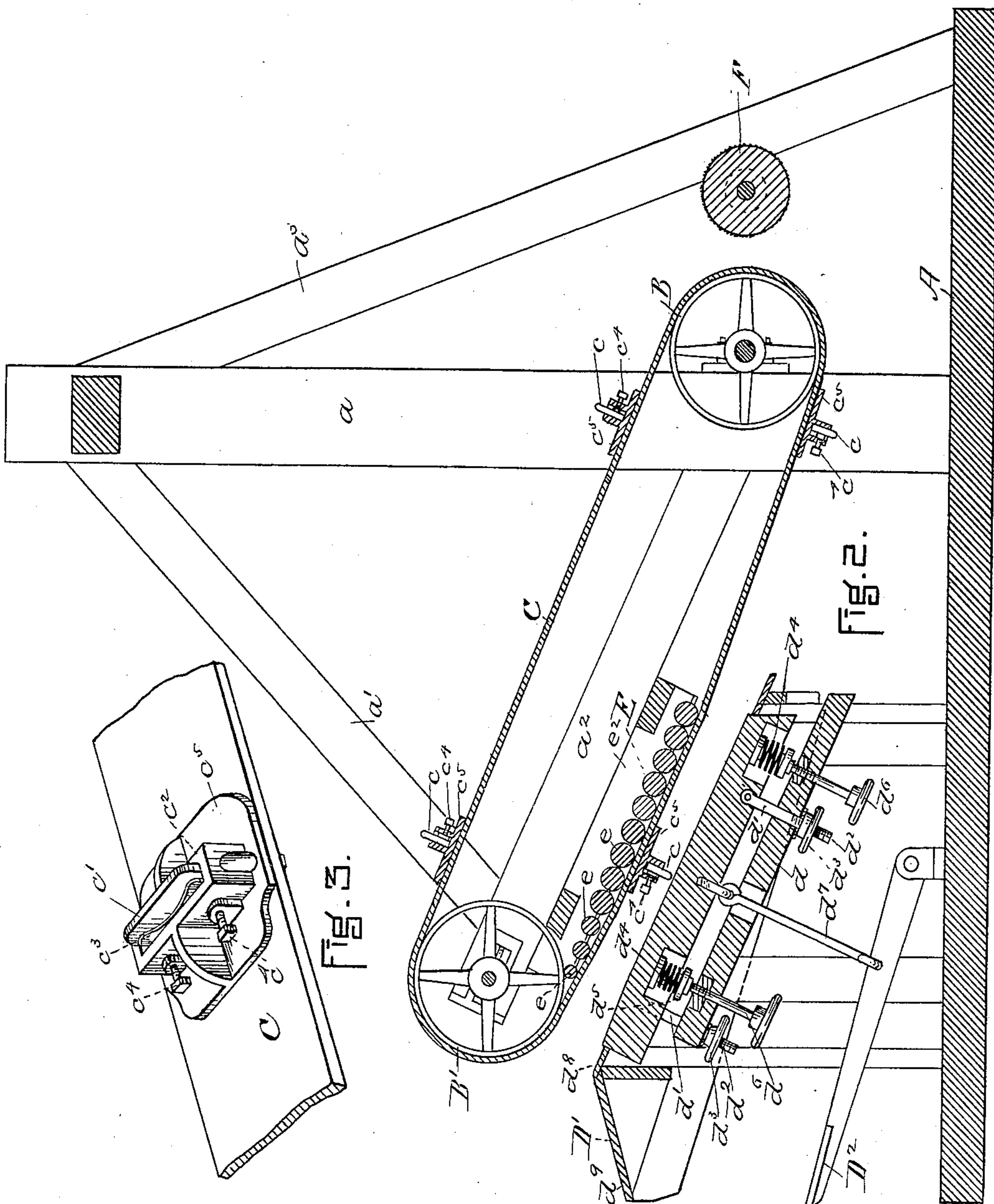
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Clarke & Raymond.



# UNITED STATES PATENT OFFICE.

EDMUND A. CURRY, OF WINCHESTER, ASSIGNOR OF ONE-HALF TO  
FREDERICK C. PARKER, OF WOBURN, MASSACHUSETTS.

## LEATHER-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 356,191, dated January 18, 1887.

Application filed October 7, 1886. Serial No. 215,524. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND A. CURRY, of Winchester, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Leather Glassing and Finishing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a view, in elevation, of my improved machine. Fig. 2 is a vertical section thereof. Fig. 3 is a view in perspective, enlarged, of the belt and one of the tools carried thereby. Fig. 4 is a view in perspective illustrating the tools as placed angularly upon the belt, for the purpose hereinafter indicated.

The invention comprises a belt carrying a number of glassing or finishing tools, and pulleys supported by a common frame and arranged in relation to each other to provide the belt with a movement parallel with an inclined bed or support for holding the side of leather during the finishing or glassing treatment.

It further relates to the employment of a holding or guiding mechanism for directing the course of the belt, and consequently of the tools while they are in contact with the leather or doing their work.

It further relates to the use, in connection with devices of the character above described, of an inclined yielding bed for supporting the leather or other material and presenting it to the action of the tools.

It further relates to the combination of such devices with a yielding bed and a foot-treadle, whereby the bed may be moved downward or away from the working-tools.

It also relates to the manner of attaching the tools to the surface of the belt, and to various details of construction, which will hereinafter be described.

Referring to the drawings, A represents the base-section of the frame, or it may be the floor. It supports the upright posts  $a$ , which are connected at their tops and carry or hold the bars or supports  $a'$   $a^2$ , and which are stayed by the stay-bar  $a^3$ .

B is one of the belt-pulleys. It has bearings upon the posts  $a$ , and is continuously re-

volved by a pulley and belt. B' is the other pulley. It preferably is mounted upon the ends of the bars or supports  $a^2$  in boxes  $b$ , movable by screws  $b'$  in the recess  $b^2$ , formed in the ends of the bars, so that the distance between the two pulleys may be varied for the purpose of increasing or decreasing the tightness of the belt.

C is the belt. It carries a number of tools,  $c$ , which are secured to the outer surface thereof, as will be hereinafter indicated. Attached to the under surface of the bars or supports  $a^2$ , and so as to be over the working-surface of the bed D, is the guide E, for governing the line of movement of the belt and tools in relation to the said bed. I have represented as forming this guide a series of rolls,  $e$ , which are journaled in the side pieces,  $e'$ , of the frame  $e^2$ , securing them to the under surface of the said support or bar  $a^2$ . These rolls are free to turn, but are otherwise immovable.

I prefer to use rolls for providing the guide, because the shape of the guiding-surface may be easily varied by varying the size of the rolls, and because they form an anti-friction guide—that is, they do not wear the belt to any appreciable extent. I would say, however, that I do not confine myself to a guide formed of rolls, as of course the guide may be made of metal, wood, or any other material arranged or shaped to govern the position of the belt and of its tools while they are in working position and with special reference to the bed.

The tools employed are of the character ordinarily used in finishing and glassing leather, and are made of lignum-vitæ, glass, stone, and steel, which are used for the following purposes: The lignum-vitæ is ordinarily used for polishing the leather, the glass for glassing it, the stone for stoning it, and the steel or "slicker," as it is sometimes called, for whitening it and running off the grease.

Each tool has a working-surface,  $c'$ , preferably somewhat rounded, and is held in a holding-box,  $c^2$ , by means of a spring,  $c^3$ , and screws  $c^4$ , which bear against the spring to hold it against the side of the tool with sufficient pressure to keep it in place in the box, while they permit it to have a slight yielding movement



in relation thereto. Of course the working-edge of the tool extends beyond the edge of the box. The box has a flat plate,  $c^5$ , which rests upon the outer surface of the belt, and is fast-  
 5 ened thereto by riveting or by bolting, or in any other desired way.

The boxes may be placed so that the tools shall extend straight across the belt, as shown in Figs. 2 and 3, or shall have any angle in relation to the edge thereof desired; and in Fig.  
 10 4 I have shown them placed angularly.

The bed D is mounted in a table,  $D'$ , and it has an inclined working surface, which is very nearly parallel to the lower surface of the guide E. It is mounted so as to have a straight  
 15 movement toward and from said guiding-surface, and also to have a yielding movement in relation thereto or to the tool. It is mounted upon the support  $d$ , and it has the rods  $d'$ ,  
 20 which extend upwardly therefrom through holes in the support  $d$ , and each have screws  $d^2$  at their ends, which receive the nuts  $d^3$  for limiting or regulating the limit of the upward movement of the bed. These rods also serve  
 25 as guides. For providing the bed with a yielding pressure I employ springs  $d^4$ , which enter holes or recesses formed in the under surface of the bed, and are carried by the plates or supports  $d^5$ , which are vertically movable by  
 30 means of the screws  $d^6$ , carried by the support  $d$ , for the purpose of varying their tension.

The bed is connected with the treadle  $D^2$  by means of the rod  $d^7$ , which passes through a hole in the support  $d$ , and is secured to the under  
 5 surface of the bed, so that by depressing the treadle the bed is moved downward against the pressure of the springs  $d^4$ .

The table  $D'$  has the section  $d^8$ , which surrounds the bed D and the inclined front section,  $d^9$ . F is a sand-paper or other grinding-roll, which is constantly rotated and used for grinding the various tools.

In use the leather to be glassed, rubbed, slicked, or otherwise treated or finished is  
 5 placed upon the bed D, the bed being somewhat depressed by the treadle  $D^2$ , in order that the leather may be placed properly thereon. The bed is then allowed to lift, and the tools  $c$  are caused to be moved rapidly over the sur-  
 10 face of the leather, the leather being moved from time to time by the operator upon the bed to present new surfaces to the action of the tools. As the bed is provided with a yielding movement, the guiding-surface E may  
 15 be fixed, and any inequalities in the thickness of the stock or any differences therein are taken up by the bed. By this construction the material is so held and the tools are so operated that they have a long movement upon  
 20 the leather, and as the tools are constantly

moving in the same direction, and a number of them are employed, the operation of the machine is very much facilitated over that of the ordinary machine of the market.

It will be seen that the bed C is inclined, 65 also the belts and guide thereof, that the leather or material be worked or finished and easily handled and guided to the action of the tools.

The tools are preferably held so as to have 70 a slight yielding movement, in order that they may not strike the material too rapidly or sharply, thereby damaging it, and for the same reason I prefer to make the surface of the guide E of a shape to cause the tools to 75 gradually approach the line of their greatest pressure over the material.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the pulleys B B', the 80 belt C, the guide E, the tools  $c$ , carried by said belt, and the yielding bed D, substantially as described.

2. In a leather glassing and finishing ma- 85 chine having a belt supporting and operating a series of tools,  $c$ , a guide for governing the position of the belt and the tools in relation to the bed of the machine, comprising a series of rolls or line of rolls,  $e$ , substantially as de- 90 scribed.

3. As a guide for belt-operated tools on leather glassing and finishing machines, the rolls  $e$ , varying in diameter and arranged in relation to the bed of the machine, as specified, 95 substantially as described.

4. The combination of the belt C, tools  $c$  carried thereby, the guide E, the bed D, and treadle  $D^2$  for depressing or moving the same away from the guide, substantially as de- 100 scribed.

5. The combination of the bed D with the rods  $d'$ , having screw-threads  $d^2$  and nuts  $d^3$ , the support  $d$ , the springs  $d^4$ , and adjustable plates or supports  $d^5$ , as and for the purposes 105 described.

6. As a means for holding a tool upon a belt in a glassing and finishing machine, the box  $c^2$ , fastened to the belt, the spring  $c^3$ , arranged to bear against the side of the tool, 100 and the screws  $c^4$ , substantially as described.

7. The combination of the pulleys B B', guide E, belt C, the tools  $c$  carried thereby, and the movable boxes of the pulley B' and their adjusting screws  $b'$ , substantially as de- 115 scribed.

EDMUND A. CURRY.

Witnesses:

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 FRED. B. DOLAN.