

(No Model.)

3 Sheets—Sheet 2

S. CHADWICK.
LEATHER DRESSING MACHINE.

No. 595,669.

Patented Dec. 14, 1897.

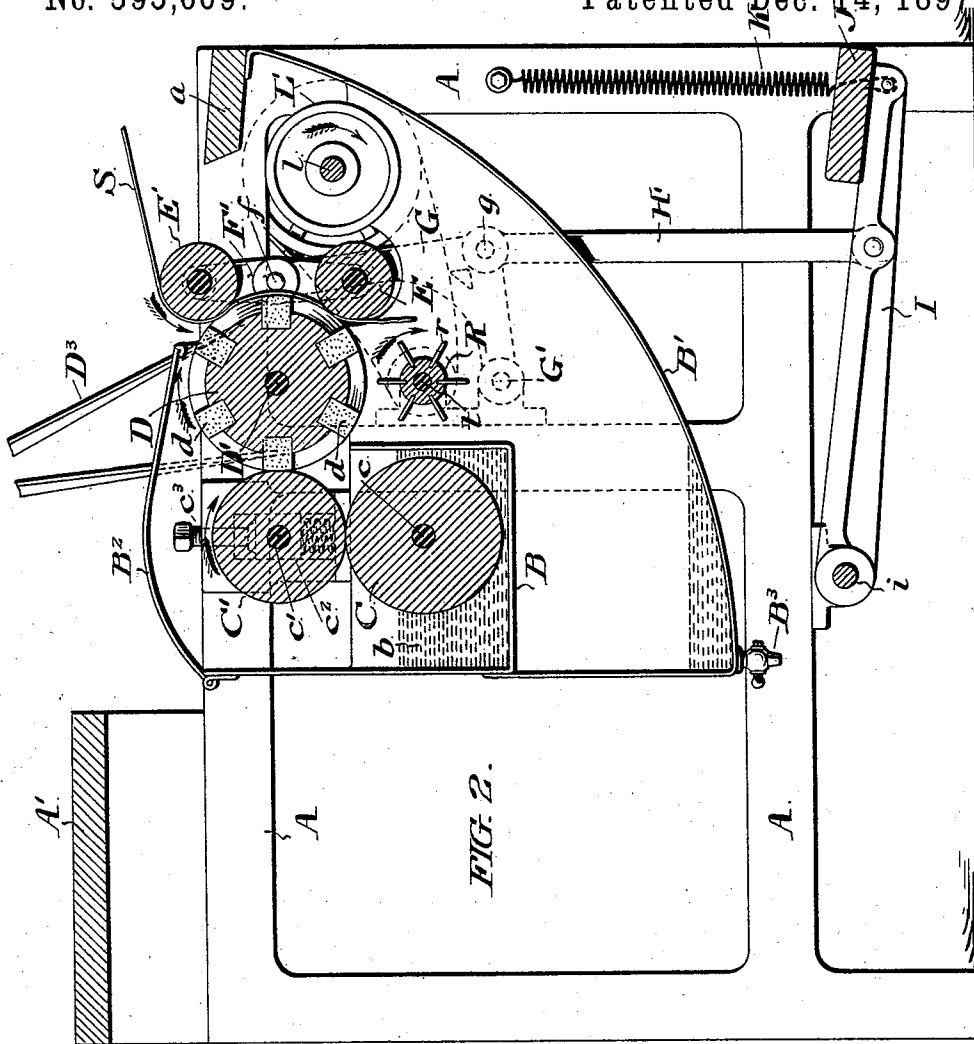


FIG. 2.

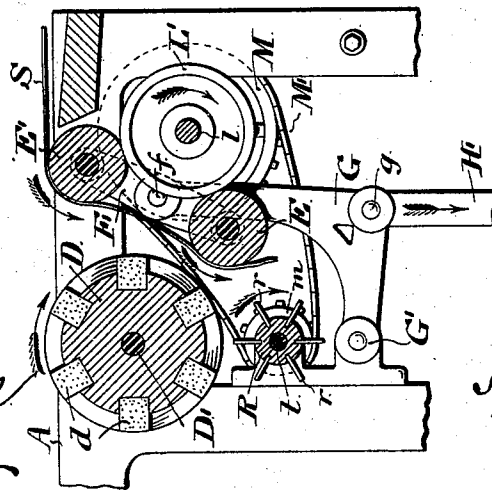


FIG. 3.

WITNESSES:

James H. Bell
V. E. Paige

INVENTOR:

Sager Chadwick
By Henry T. Paul
attorney

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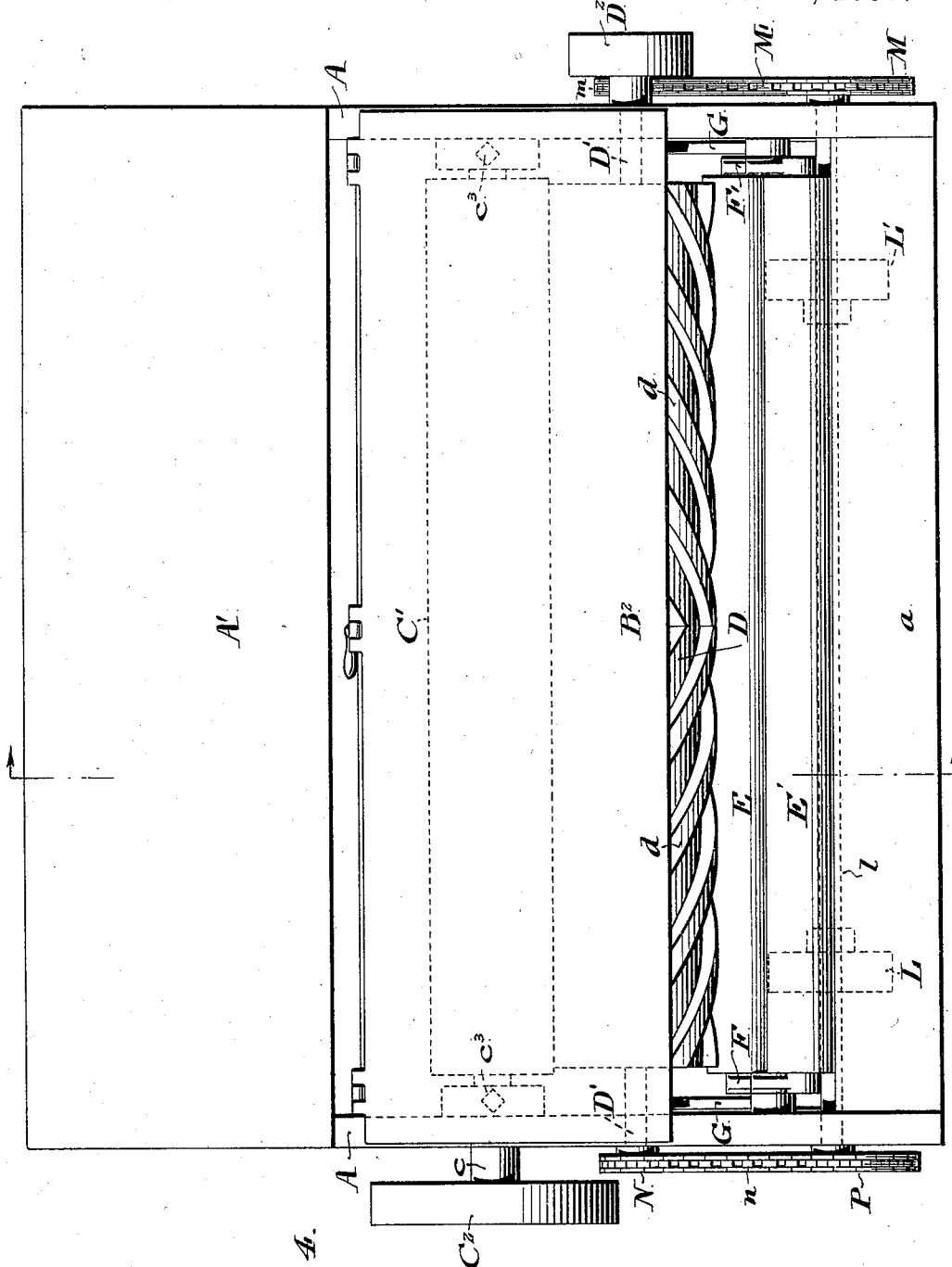


FIG. 4.

WITNESSES:

James H. Bell
A. E. Paige

INVENTOR:

Sage Chadwick
My Attorney

UNITED STATES PATENT OFFICE.

SAGER CHADWICK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
ROBERT K. MCNEELY, OF SAME PLACE.

LEATHER-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 595,669, dated December 14, 1897.

Application filed May 12, 1896. Serial No. 591,208. (No model.)

To all whom it may concern:

Be it known that I, SAGER CHADWICK, of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful
5 Leather-Dressing Machine, whereof the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to provide an apparatus for the mechanical dressing of
10 leather, including the application of oil or other material to the skin.

In the accompanying drawings, Figure 1 represents a side elevation of the apparatus. Fig. 2 is a longitudinal vertical section through
15 the same. Fig. 3 is a partial section on a plane similar to that of Fig. 2, but showing certain of the parts in different positions. Fig. 4 is a top or plan view of the apparatus, and Fig. 5 is a view of the dressing-roller.

20 The housings of the machine are represented at A and preferably consist of an open framework substantially of the character indicated. Extending transversely across the interior of the framework is a horizontal
25 trough B to contain oil or other material which is to be applied to the skin. A roller C, mounted upon the shaft *c*, is adapted to rotate within said trough, the shaft extending through the ends thereof and being provided
30 at one end with a driving-pulley C², actuated by means of a belt C³. Immediately above said roller is a second roller C', whose shaft *c'* is supported in adjustable journal-boxes *c*², which may be of any well-known construction
35 and capable of adjustment by means of a set-screw *c*³, so as to bring the surface of the roller C' into more or less intimate contact with that of the roller C. This roller C' is driven by frictional contact with the roller C and is
40 adapted to take up oil or other material supplied by the latter and feed it to the dressing-roller D. Said dressing-roller consists of a cylinder mounted upon a shaft D' and having arranged longitudinally along its periphery
45 projecting strips *d*, preferably of felt or other comparatively firm material, capable by its texture or by the mode of its disposition of taking up the dressing. Each of these strips extends in a V-shaped or waved line, as indicated in Fig. 5, and the exterior surfaces
50 thereof rotate successively into contact with

the surface of the feeding-roller C', so as to take the oil or other dressing material therefrom. The dressing-roller D is positively
55 driven by means of a pulley D² and belt D³.

Adjacent to the dressing-roller are two
60 smaller rollers E E', (which I term the "carrying-rollers,") which are supported upon yokes F F' upon transverse studs *f*, so that said rollers E E' can rock or play freely about
65 the studs *f*. Said studs *f* are mounted upon a shifting frame G of bell-crank form, which is pivoted to the housings at G'. Links H H' are pivotally connected at *g* to the frame G
70 and extend down to the treadle I, pivoted at *i* to the housings and provided with a foot-board J and springs K K', which latter normally tend to hold the treadle, and consequently the frame G, in its extreme upward
75 position. (Indicated in Fig. 2.) The motion of the frame throws the carrying-rollers E E' toward or away from the dressing-roller D, the extreme position of said rollers being indicated, respectively, in Figs. 2 and 3.
80 When in their outermost position, (indicated in Fig. 3,) said carrying-rollers E E' are in frictional contact with a pair of disks L L', rigidly secured to a shaft *l*, which is provided at one end with a sprocket-wheel P, having a chain *n* engaging with a driving sprocket-
85 pinion N, mounted upon the end of the shaft D' of the dressing-roller D, so that the said disks are positively driven thereby. Upon the other end of the shaft *l* is a sprocket-wheel M, whose chain M' engages with a
90 sprocket-pinion *m*, mounted upon a shaft *t*, which carries a beater R, having radially-projecting strips *r*, said beater being arranged a short distance below the dressing-roller D. The several rollers are inclosed within a large
95 tank B', which extends between the housings and which serves to catch the drippings from the rollers and skins, said tank being provided with an outlet B³ at the bottom to draw off the accumulations. A hinged cover B²
100 also extends partially over the top of the machine to prevent the oil or other material from being flung off upward. A table A' for skins may be conveniently arranged across one end of the apparatus and a ledge or feed-
ing-board *a* at the opposite end.

The operation of the apparatus is as fol-

lows: The tank B being supplied with oil or other dressing material, (indicated by *b*.) the roller C rotates therein and supplies said material to the feeding-roller C', also positively rotating the latter to supply the same to the surfaces of the strips *d* upon the dressing-roller. The amount of material thus supplied can be regulated by the pressure of the feeding-roller upon the roller C. The operator, standing at the right-hand end of the frame in Figs. 1 and 2, draws the skin from the table A', and then depressing the treadle I throws the carrying-rollers EE' into their extreme outward position, thus bringing them into frictional contact with the disks L L', so that they are rotated thereby in the direction proper to carry a skin S down into the apparatus. The operator, holding the skin, allows it to be thus carried down until it is properly within the grasp of said rollers, when he releases the treadle, and the bell-crank G is then thrown upward and brings the carrying-rollers E E' into their extreme inward position. (Indicated in Fig. 2.) The skin S is then between the carrying-rollers EE' and the dressing-roller D and in frictional contact therewith. The rotation of the dressing-roller D carries the skin downward (the operator still holding the same and usually pulling backward upon it to obtain a more vigorous action) and rubs or wipes the dressing material into it. The strips *r* of the beater prevent the lower end of the skin, however, from being carried around and becoming entangled with the strips *d*, and when the operator has thus fed the skin in as far as may be done without releasing the same he pulls it out wholly or partially and repeats this operation as often as may be necessary. Then entirely withdrawing the skin, he inserts the other end thereof in a similar manner and dresses the portion which has previously been withheld from the action of the rollers. The skin is thus subjected to a very thorough dressing, the V-shaped arrangement of the strips and play of the carrying-rollers E E' permitting a very effective kneading or working of the dressing material into the skin.

Having thus described my invention, I wish it to be understood that I do not limit myself to the precise mechanical details of the several parts which are set forth in the above description of a preferred embodiment of my invention; but

I claim—

1. The combination, with a frame, a dressing-roller, and a roller engaging the dressing-roller and supplying the dressing material thereto, of a feed or carrying roller movable toward and from the dressing-roller and means for rotating the feed or carrying roller when moved away from the dressing-roller, substantially as described.

2. The combination, with a frame, an oil or dressing receptacle thereon, a roller journaled in said receptacle, and a second roller con-

tacting with the first roller, of a dressing-roller contacting with the said second roller and supplied therefrom with dressing, and a pair of feed or carrying rollers movable toward the dressing-roller to hold the skin thereto and movable away therefrom to permit the entrance of a skin, substantially as described.

3. The combination of a dressing-roller; means substantially as set forth for supplying dressing material thereto; a pair of freely-mounted carrying-rollers arranged adjacent to said dressing-roller; a shifting frame supporting said carrying-rollers; and actuating mechanism (as disks, L, L') arranged with relation to the extreme outward position of said carrying-rollers, substantially as set forth.

4. The combination, with a frame, and a dressing-roller, of a pair of carrying-rollers to hold the skin to the dressing-roller, bell-crank levers pivoted to the frame and to which the yokes or arms carrying the feed or carrying rolls are pivoted and a treadle mechanism connected with said bell-cranks to move the feed or carrying rollers toward and from the dressing-roller, substantially as described.

5. The combination with a dressing-roller and means for rotating it, of a normally-adjacent carrying-roller free to rotate in either direction to permit the operator to pull the skin outwardly for successive actions by said dressing-roller, a driving means beyond and at that side of the carrying-roller opposite the dressing-roller, and means for moving said carrying-roller away from the dressing-roller and into contact or mesh with said driving means whereby the said carrying-roller will then become a positively-driven roll to feed the skin inwardly into position for action by the dressing-roller, substantially as described.

6. A leather-dressing machine, comprising a frame, a dressing-roller, dressing contacting supply-rollers, one of which engages the dressing-roller and the other of which enters a dressing-receptacle, feed or carrying rollers movable toward and from the forward side of the dressing-roller, means for rotating the feed or carrying rollers when moved outwardly, and a beater rotating beneath the dressing-roller, substantially as described.

7. A leather-dressing machine, comprising the frame, a dressing-roller, a dressing-trough, rollers for conveying the dressing from the trough to the dressing-roller, feed or carrying rollers in front of the dressing-roller to hold the skin thereto, means for moving the feed or carrying rollers toward and from the dressing-roller, a drive-shaft in the outward path of the feed-rollers to rotate the same when moved away from the dressing-roller, a beater under the dressing-roller and the large enclosing tank, substantially as set forth.

SAGER CHADWICK.

Witnesses:

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G. HERBERT JENKINS.