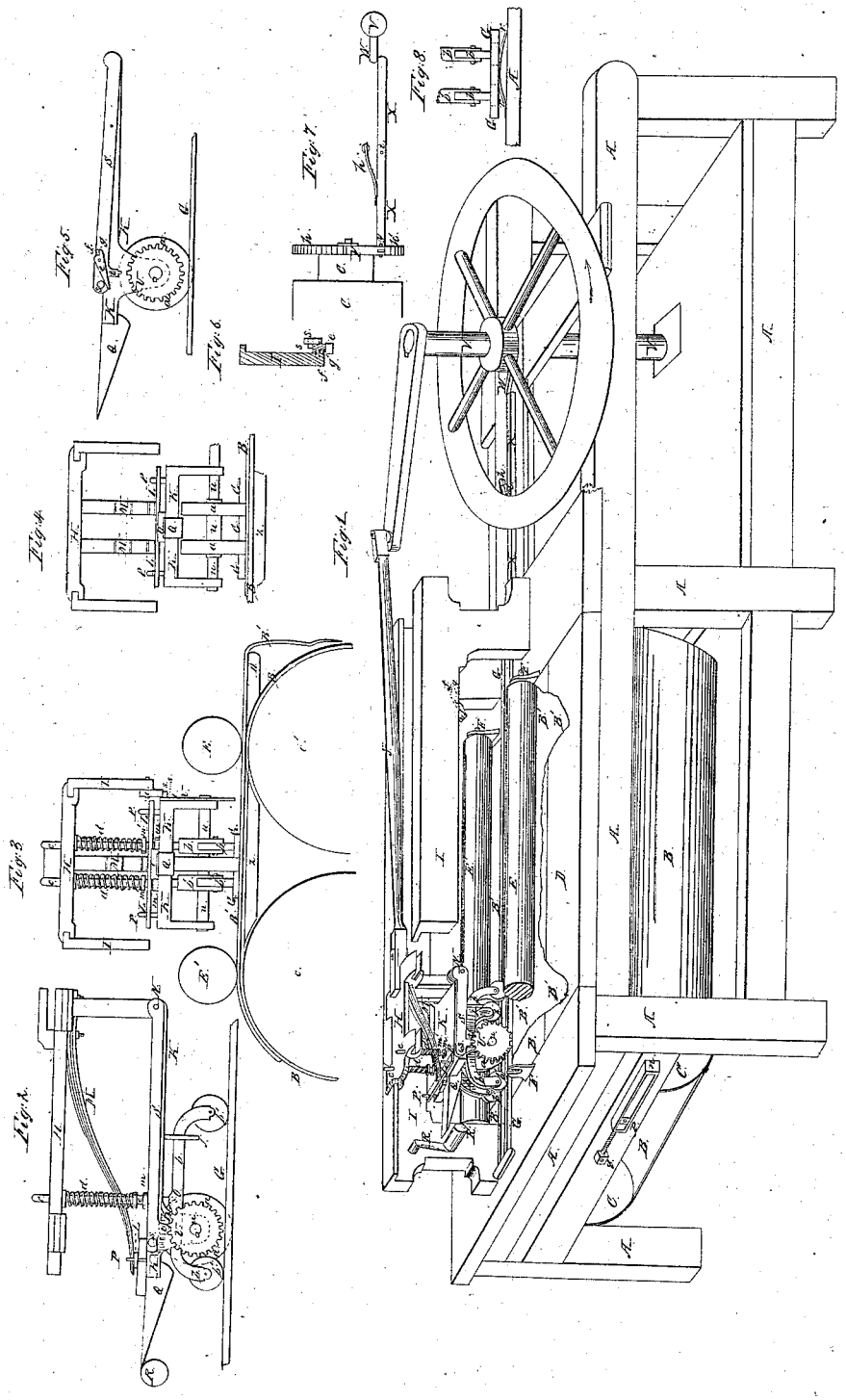
E. Bookhout & H. Cochen.

Dressing Leather.

No. 7,133. Patented June 18, 1850.



UNITED STATES PATENT OFFICE.

EDWARD BOOKHOUT AND HENRY COCHEN, JR., OF WILLIAMSBURGH, NEW YORK.

MACHINE FOR FINISHING MOROCCO.

Specification of Letters Patent No. 7,433, dated June 18, 1850.

To all whom it may concern:

Be it known that we, EDWARD BOOKHOUT and HENRY COCHEN, Jr., of the village of Williamsburgh, in the county of Kings and State of New York, have invented a new and useful Machine for Rolling, Figuring, and Finishing Morocco, Hides, Leather, and Paper; and we do hereby declare that the following is a full and exact description.

Figure 1 is a perspective view of the machine. Fig. 2 a side elevation of the sliding head, raising bar (R) &c. Fig. 3 a front elevation of the sliding head, finishing tools or rollers, (*a a*) clasps, (G G) &c., with a skin passing under, (B′). Fig. 4 a front elevation of the sliding head with two finishing tools (*a a*) and clasps to correspond. Fig. 5 a side view of the lower section of the sliding head, drop (S) &c. Fig. 6 a section of one of the ways, (I) showing the comb (*e*) and front end of the drop or lever (*s*). Fig. 7 shows a part of the large roller or cylinder (*c*) with the ratchet wheel attached, the moving lever &c. Fig. 8 a front view of the clasps, (G G) and spring for raising the same.

Fig. 1 A A A the frame of the machine; B B B is a wide strip of well rolled leather, passing around the two rollers (C C′) and over the stationary table (Z) Fig. 3 forming an endless belt, the objects of which are, first, to carry the skin or paper to be finished in its proper place, and out again; secondly to prevent the finishing tool or tools (*a a*) from getting scratched, as they would if they were allowed to run off the skin upon an iron or wooden table; C C′ Figs. 1 and 3 two large rollers around which the endless band runs; the rollers are made to revolve by a ratchet wheel (*k*) which is fastened to the back end of roller (C Fig. 7), said ratchet wheel being moved by the short bar (W) projecting from the shaft (V) of the fly wheel (Figs. 1 and 7) coming in contact with the lever (X X) which forces the ratchet (Y) against the teeth of the said ratchet wheel, (*k*) and at each revolution of the fly wheel the rollers (C C′) are made to revolve sufficiently to carry the skin or paper to be finished under the finishing tools, at a distance of not more than three quarters the width of the finishing tools at a time. D, D that part of the table on which the unfinished part of the skin or paper lays before being drawn in by the revolving of the rollers (C C′) and the feeding roller. E, Figs. 1 and 3 feeding roller made of hard, heavy wood or metal with its journals working in vertical grooves at F, (Fig. 1) the object of this roller is to help carry the skin or paper in its place to be finished. E′ Figs. 1 and 3 an escape roller, made and working the same as the feeding roller (E) its object being to keep the skin or paper from dropping off when it shall have passed the feeding roller. G G the clasps made of wood or metal and lying parallel with each other (Figs. 1, 3 and 4) and having a spring (*r*) under each end which keeps them off from the leather (Fig. 8) unless when held down by the sliding pieces (*b b*) (Figs. 1, 2 and 8) which is always the case while the operation of finishing is going on; the objects of these clasps are to hold the skin or paper in its place, and to prevent it from being torn when the finishing tools come in contact with the edge, or a hole, and to prevent the same from rolling up.

H H is that part (upper section) of the sliding head which is attached to the connecting rod (J) by which it gets its backward and forward motion. I, I, the ways on which the sliding head runs, said ways, clasps, feeding and escape rollers being parallel with the motion of the finishing tool or tools, (*a, a.*)

K is the lower section of the sliding-head working on a hinge at N and pressed down by weights or springs. (M, Figs. 1, 2, 3 and 4.) L, Figs. 1, 2, 3, and 4 an oblong piece of metal working up and down, guided by bolts (P, P, Figs. 1, 2, 3 and 4) on which the springs (M, M) rest.

O, Figs. 1, 2, 3 and 4 is a wedge, the object of which is to increase the pressure of the finishing tools on the skin or paper by driving it in, or decrease by drawing out. *a, a,* Figs. 1, 2, 3, 4, and 5 the finishing tools, made of wood, metal, glass, stone or ivory about four inches in diameter and one inch thick, and fastened to the shaft *u* Figs. 1, 2, 3, and 4.

U, Figs. 1, 2, 3 and 5 is a small cog wheel made fast to the shaft (*u*) at its end. S, Figs. 1, 2, 3 and 5 is a drop or lever working on a pivot at N with a small projection (*t*) at the bottom of the front end, which drops in between the cogs of the wheel (U,

Figs. 1, 2, 3 and 5) thereby holding the finishing tools stationary and preventing their revolving while the sliding head is in motion. *s*, Figs. 1, 2, 3, 5 and 6 a small projecting stump made fast to the drop or lever (S) directly above the center of the cog wheel (U) its object is to relieve the cog wheel and allow the finishing tools (*a*, *a*) to revolve a little that the wear on their peripheries may be equal all around, thus, while the sliding head, &c., are on their backward motion, (or forward, or both if required) and as soon as the finishing tools (*a a*) run off the skin or paper which is being finished (B′) the projecting stump (*s*) catches upon the movable cam, (*e*, Figs. 1, 3, 5 and 6) which raises the lever or drop, (S) relieves the cog wheel (U) and allows the finishers to revolve a little; it (the stump *s*) drops off the back part of the cam (*e*) and falls again in its place. It may be necessary to state that the stop (*f*, Figs. 1, 5 and 6) which prevents the cam (*e*) from dropping too far by its standing in the way of the projection (*g*) on the back part of the cam is made sufficiently short for the stump (*s*) to pass without interfering. We will also state that in rolling heavy hides the finishing tools may revolve all the time, as it is not necessary to have so high a polish as morocco, the object is to have it rolled hard.

b,—*b*,—Figs. 1, 2, 3 and 8 are sliding pieces (they may in order to prevent friction have rollers attached as is shown at *b′*, *b′* Figs. 1, 2, 3 and 8) which press upon the clasps (G, G) and hold them down upon the skin or paper (B′) while the finishing is being performed for the purposes before described.

c,—*c* Figs. 1, 2, 3, are rods which guide said sliding pieces (*b*,—*b*,—) by running through holes in the lower section of the sliding head (K) sufficiently large so that they shall not bind, thence each rod passes through a nut (*m*) which is always screwed close to the lower section of the sliding head so that as soon as the lower section of the sliding head is raised the sliding pieces (*b*,—*b*) will raise also, thus allowing the springs (*r*,—*r*, Fig. 8) to raise the clasps (G, G,) which will permit the skin or paper to pass under; the rods (*b*,—*b*,—) each passes through another nut (*m′*) (just above *m*,) which supports the spiral spring (*d*,—*d*) thence through said spiral spring, and also through a hole in the top of the sliding head; the spiral spring (*d*, *d*) by pressing against the upper section of the sliding head, and resting upon the nut *m′* causes the sliding pieces (*b*, *b*, Figs. 1, 2, 3) to bear down upon, and keep the clasps tight upon the skin or paper (B′ B′).

J,—J are guides in the bottom of the lower section of the sliding head, which prevents the sliding pieces (*b*,—*b*) from wabbling or getting off the clasps (G G).

R,—Figs. 1 and 2, is a raising bar, (which may have a roller on to avoid friction), the object of which is to raise the finishing tools, sliding pieces, &c., by the projecting piece (Q Fig. 1 and 2) being forced upon it; the projecting piece Q is sufficiently inclined at the bottom to raise the lower section of the sliding head from the table, (Z,—Fig. 3) and as it raises it carries the finishing tools, (*a a*) the nut, (*m*) and traveling pieces along with it, which releases the skin or paper as above described, at the same time the projecting bar (W,—Figs. 1 and 7) on the shaft (V,—Figs. 1 and 7) of the fly wheel strikes the lever (X X) with the ratchet (Y Fig. 7) attached, which causes the endless band (B, B, B Figs 1 and 3) to move and carry the skin or paper through as fast as required. *r*,—*r*, Fig. 8 is a spring at the ends of the clasps, (G, G,).

The clasps may be made separate from each other if required, with a spring under the ends of each of them or joined together as per drawing (Fig. 1). *n* Fig. 1 is a metal slot on the front bottom rail of the frame (A, A,) in which the journal of roller (C′) works, with a tightening screw (*q*) to tighten the endless belt in case it should get stretched, (there is one at each end of this roller C′).

In describing the rod (*c*) and sliding piece (*b*) we forgot to mention they are connected by a pivot (*o*) so that when the lower part of the sliding head (K) is raised both of the lower ends (or rollers *b′ b′*) of the sliding pieces may be kept upon the clasps, this allowing them to raise sufficiently high for the skin or paper to pass under without catching.

Mode of operation: The machine being in motion, the skin or paper to be finished is placed between the feeding roller (E) and the endless band (B, B) which draws it in and carries it to its place under the clasps and finishing tools, (*a*, *a* Figs. 1 and 3) where it is finished as per description. After the skin or paper has been rubbed once backward and forward the lower part of the sliding head raised and the skin is carried about three quarters the distance of the thickness of the finishing tools through, and so on till finished, when it drops into anything placed on the other side of the machine to receive it.

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

1. A sliding-head with finishing tools (one or more) attached, said tools to be held down by weight or springs; said sliding head to do its work while in a backward and forward motion, and running on straight ways as herein set forth.

2. We claim as our invention the appli-

cation of one or more clasps (G,—G) for the purposes described in the specification, in combination with one or more finishing tools whose motions are parallel with said clasps; we also claim the application of one or more finishing tools which are held stationary while rubbing the skin or paper and allowed to revolve a little when required to equalize the wear on the peripheries of the same.

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Witnesses:
W. S. ROWLAND,
G. W. HATCHER.