(No Model.)

A. PROBST.

MACHINE FOR WORKING LEATHER.

No. 489,641. Patented Jan. 10, 1893.

Fig. 1

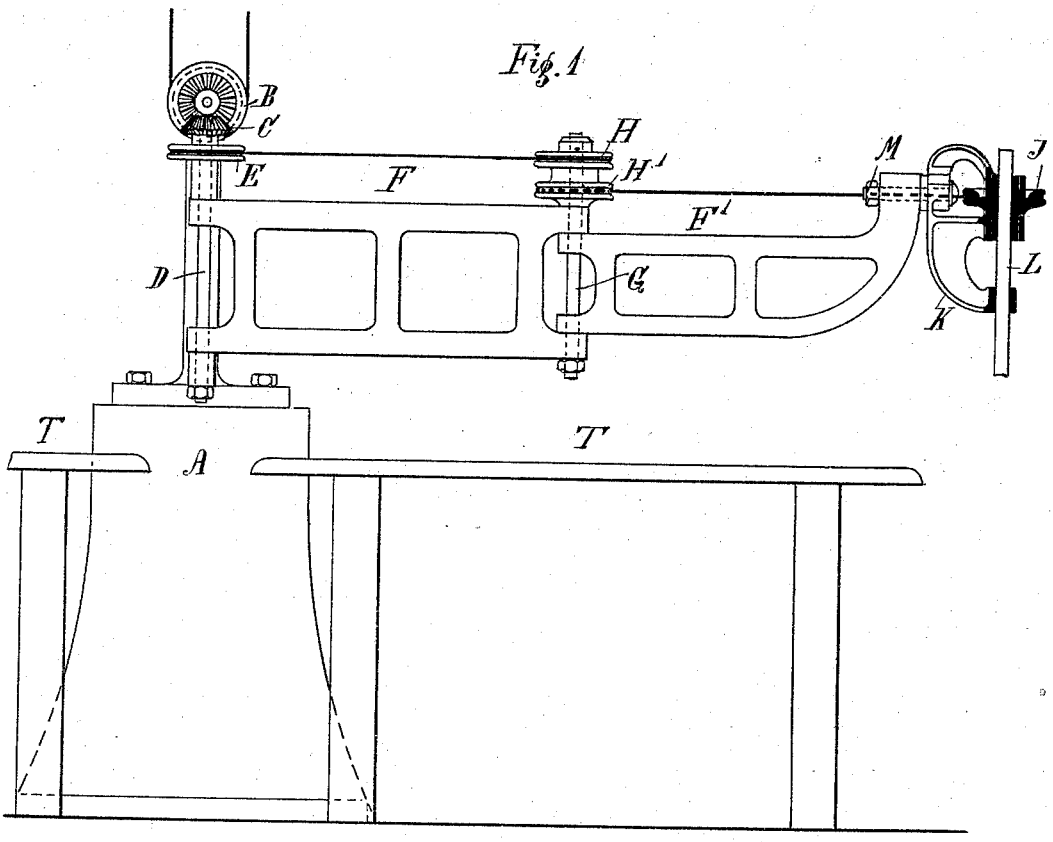


Fig. 2.

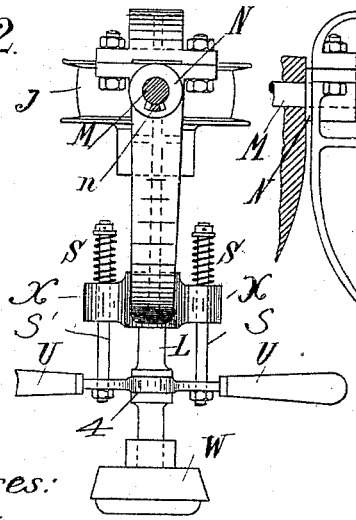
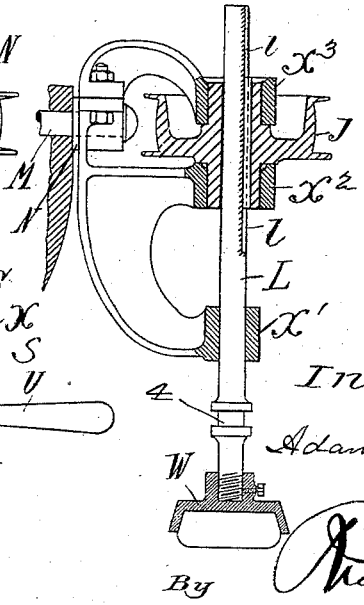


Fig. 3.



Witnesses:
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E. H. Sturtevant

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UNITED STATES PATENT OFFICE.

ADAM PROBST, OF WORMS, GERMANY, ASSIGNOR TO DOERR & REINHART, OF SAME PLACE.

MACHINE FOR WORKING LEATHER.

SPECIFICATION forming part of Letters Patent No. 489,641, dated January 10, 1893.

Application filed August 26, 1892. Serial No. 444,226. (No model.)

To all whom it may concern:

Be it known that I, ADAM PROBST, a subject of the Grand Duke of Hesse, residing at Worms, in the Grand Duchy of Hesse, Germany, have invented new and useful Improvements in Machines for Working Leather, of which the following is a specification.

The construction of the machine is illustrated in the accompanying drawings.

Figure 1 is a general view of the machine, while the Figs. 2 and 3 show on a larger scale the arrangement of the movable bracket in which the tool-holder is disposed.

As represented in Fig. 1 a frame A arranged in the midst behind the tables T carries the mechanism actuating the machine. A horizontal shaft B revolved from outside, transmits its motion by means of a pair of conical toothed wheels or of friction-wheels to the vertical shaft D. On this shaft D are movable and turn the horizontal arms F and F′, the latter of which carries on its free front end a peculiar bracket and in this bracket is the working shaft. The horizontal arms F F′ which preferably have the form of lattice holders, carry the mechanism for transmitting the movement to the tool-holder; to the upper end of shaft D is fastened the pulley E from which passes an endless belt, cord or chain to the pulley H secured to the rotatable shaft G arranged between the two arms F F′; from the shaft G the revolving movement is transmitted by means of the pulleys H′ and F to the working shaft L. The shaft L carrying the tool is not only adapted to revolve and to be moved up and down, but it must also be possible to displace it laterally. For this purpose the shaft carrying the working head is not arranged directly in the front end of arm F′, but in a peculiar bracket K connected by the bolt M with the end of arm F′ as shown in Fig. 3. The bracket is loose on its bolt M passed through the eye N provided with a sector-shaped recess (see Fig. 2) into which enters a projection *n* arranged on the under-side of the bolt M so as to have still sufficient play; this lateral play determines the stroke of the bracket and in consequence also that of the shaft L. The shaft L has cut into it a long groove *l* so as to be movable at will on the wedge of its driving pulley. By means of adjusting rings it is held in the required height.

In the lower part of Figs. 2 and 3 is illustrated the manner of attaching the tool to the shaft. According as the machine has to serve for polishing blacking, grounding, dyeing &c. leather, the threaded end of the shaft is secured in the suitable tool-holder W. carrying the rubber, brush, &c. The weight of the tool is compensated by spiral springs S arranged about the rods S′ extending vertically on each side of the shaft through projections X on the lower bearing X′ of the bracket. The lower pulley J on the vertical shaft L is arranged between the two bearings X^2, X^3 of the bracket. The handle is swiveled at 4 to the shaft L.

It will readily be understood, that the workman in guiding the head by the handles U U can easily arrive, owing to the arms F and F′ movable round the driving shaft D and also with respect to each other, to any point of the working table and treat anywhere easily the work-piece.

I claim—

1. In combination, the swinging frame, the bolt M extending horizontally through the end of said frame, the bracket K swiveled on the said bolt, the bearings on the said bracket arranged one above the other, the tool shaft L passing loosely through the said bearings, and the pulley J on the said vertical shaft between two of the bracket bearings, substantially as described.

2. In combination, the swinging frame, the bolt M arranged horizontally in the end of the frame and having a projection *n*, the bracket K having a recessed eye N arranged to swivel on the bolt and have limited lateral movement, the bearings on the bracket arranged one above the other, the vertical tool shaft passing through the bracket bearings and the pulley on the vertical shaft between the bearings, substantially as described.

3. In combination, the swinging frame, the bracket swiveled at the end thereof to have lateral swinging movement, the vertical tool

shaft passing loosely through the said bracket to have vertical adjustment, the handles swiveled on the lower part of the said shaft, the spring rod extending on each side of the shaft from the handles through projections on the bracket and the springs S on said rods tending normally to raise the handles, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ADAM PROBST.

Witnesses:
GEORG VAL KAHL,
GEORG BERTGES.