Dec. 5, 1950 H. FEHLMANN 2,532,398

LEATHER SPLITTING MACHINE

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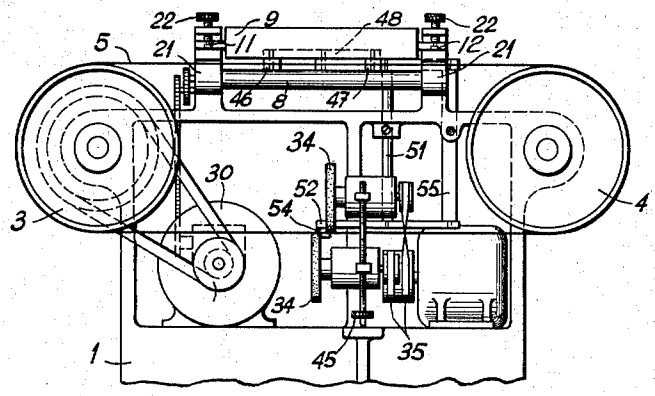


FIG. 1

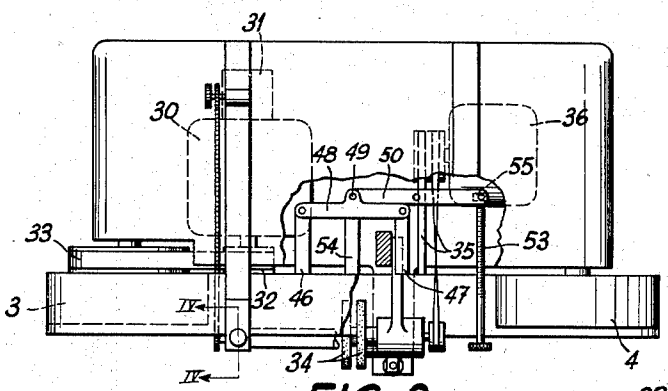


FIG. 2

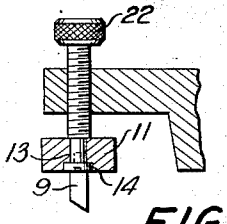


FIG. 4

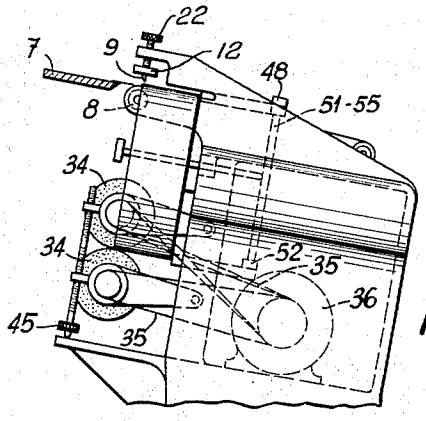


FIG. 3

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LEATHER SPLITTING MACHINE

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2 Claims. (Cl. 69—10)

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This invention relates to a leather splitting machine comprising a band cutter mounted on a driving pulley and a driven pulley.

An important feature of the invention resides in that the operative part of the cutting band bears against two blade guides hingedly connected to a swing lever pivoted on a first lever while the nonoperative part of the band bears against a guide hinged to a second lever, both said first and second levers being secured on a common shaft and controlled by a common adjusting member allowing the band cutter to be fed transversely in proportion as it wears away.

The annexed drawings represent by way of example a form of construction of the machine embodying the invention.

Referring to said drawings:

Fig. 1 is a partial front elevational view of the machine.

Fig. 2 is a partial top plan view thereof;

Fig. 3 is a side elevational view of the machine, and

Fig. 4 is a vertical section, on an enlarged scale, along line IV—IV of Fig. 2.

In the form of construction shown in the drawing, the machine comprises a base 1 on which are mounted a driving pulley 3 and a free or driven pulley 4 carrying a band cutter 5. The pulley 4 is adjustable in a direction perpendicular to its shaft in order to make it possible to tighten the band.

In front of the upper part of the band there is placed a feeding table 7 intended to guide the leather or hide to be split between a lower feed roller 8 and an upper guide fence 9 positioned below and above the cutting edge of the band respectively.

The fence 9 is supported, at its end lugs 11, 12, by means of setting screws 22 having a cylindrical smooth extension 13 loosely passing through a corresponding perforation in each of the lugs 11, 12. An abutment screw 14 is provided for transmitting the raising axial motion from screw 22 to the lug 11 (Fig. 4). The lower feed roller is journaled in two bearings as at 21. The parallelism between the fence and the band cutter may be adjusted by means of two set screws 22.

The driving shaft of an electric motor 30 is arranged parallelly to the shafts of the pulleys 3 and 4. The casing of the speed reducer 31 is made integral from cast iron with the flange of the motor. At its other end, the motor shaft carries a pulley 32 which drives the pulley 3 by means of a belt 33.

Two grinding wheels 34 are mounted scissors-like in front of the cutting edge of the lower part of the band; they are driven by means of belts 35 by a second electric motor 36 whose shaft is arranged perpendicularly to the shaft of the first one.

An adjusting screw 45 with right-and-left

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handed thread cooperates with two nuts, each of which directly controls a grinding wheel carrying bracket thus permitting said grinding wheels to be brought nearer according as they wear. The adjusting screw 45 itself can be lifted or lowered to adjust the height of the grinding wheels.

The back edge of the band cutter bears against two upper back guides 46 and 47 arranged on both sides of the free space for the leather to be split and against a lower back guide arranged in the medial plane of the machine. The upper back guides are hingedly mounted on a horizontal swing lever 48 fulcrumed by its center on a pin pivot 49 carried by one arm of a double armed lever 50 secured to a vertical shaft 51. On an extension of this shaft 51 is secured a double armed lever 52 on one arm of which the lower back guide 54 is hingedly mounted. An adjusting screw 53 acts on a cross bar 55 secured to the second arms of the levers 50 and 52 to permit the back guides to be pushed forward and the band cutter to be pushed against the grinding wheels 34 according as the band cutter wears. The back guides are provided on their side against which bears the back edge of the cutter with a piece of very hard metal or some other wear resistant material.

The casing 2 of the machine is shown sloping backwards in order to ensure sufficient declivity to the feed table 7, thus facilitating introduction and withdrawing of the hides and improving the working position of the operator.

As a modification the guide fence could be replaced by an upper feed roller, loosely mounted or driven by the lower roller.

The machine as described enables of splitting leather or hides into very thin sheets of uniform thickness and on account of its regular operation a high output is ensured.

What I claim is:

1. In a leather splitting machine comprising two grinding wheels and a band cutter mounted on a driving and a driven pulley, a first lever, a swing lever fulcrumed on said first lever, two back guides hingedly mounted on said swing lever intended to bear against the operative part of the band cutter, a second lever, a back guide hingedly mounted on said second lever intended to bear against the nonoperative part of said band, a common shaft to which both said first and second levers are secured, a common adjusting member for controlling said shaft, whereby the band cutter can be fed accordingly as it wears against said grinding wheels.

2. Leather splitting machine as claimed in claim 1, in which a piece of wear resistant material is secured to each cutter back guide, said piece being intended to be in contact with the cutter band.

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No references cited.