(No Model.)

C. M. KIMBALL.

APPARATUS FOR TREATING SKINS.

No. 381,932. Patented May 1, 1888.

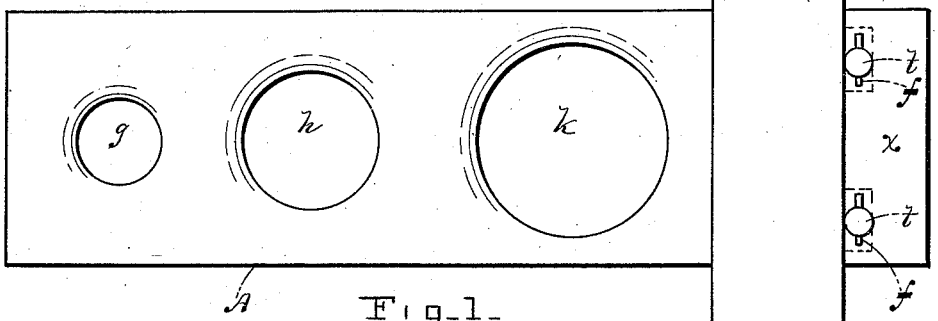


Fig. 1.

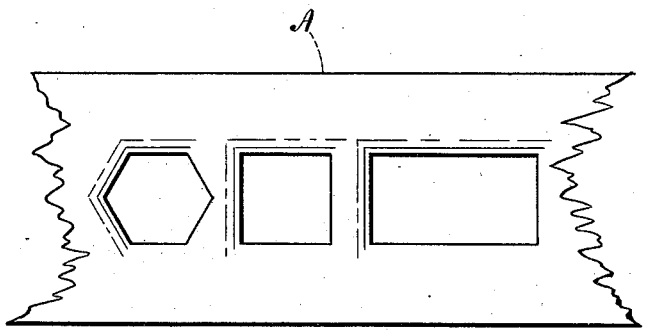


Fig. 2.

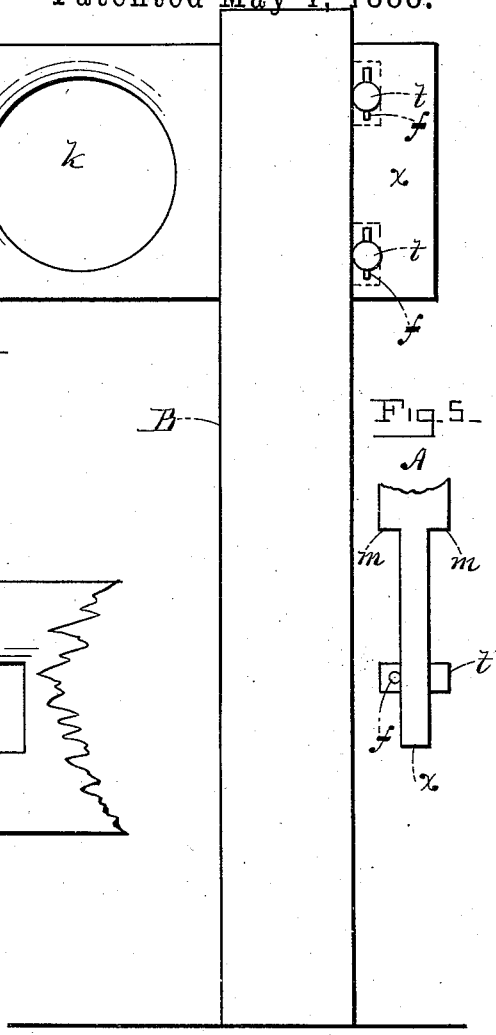


Fig. 5.

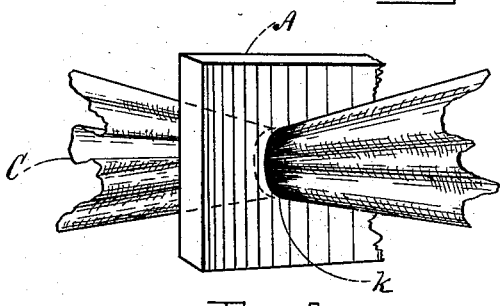
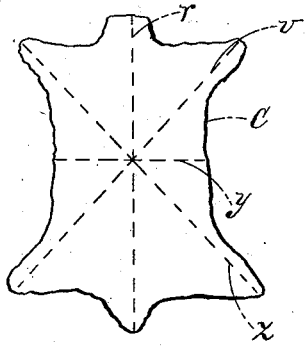


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES M. KIMBALL, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND BENJAMIN MILTON KIMBALL, OF SAME PLACE.

APPARATUS FOR TREATING SKINS.

SPECIFICATION forming part of Letters Patent No. 381,932, dated May 1, 1888.

Application filed December 28, 1887. Serial No. 259,233. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. KIMBALL, of Haverhill, in the county of Essex, State of Massachusetts, have invented a certain new and useful Improvement in Mechanism for Treating Morocco-Skins and other Finished Leather, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which--

Figure 1 is a side elevation of my improved die; Fig. 2, a view showing certain details of construction; Fig. 3, an isometrical perspective view showing the skin on its passage through the die; Fig. 4, a reduced plan view of the skin before it is drawn through the die; and Fig. 5, a plan view of the inner end of the die, showing method of attaching it to the standard or support.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to mechanism for breaking up or disintegrating the grain of morocco-skins and other finished leather to meet the requirements of fashion and trade in that respect; and it consists in certain novel features, as hereinafter more fully set forth and claimed, the object being to produce a simpler, cheaper, and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the die, and B the standard or support for the same. The die is preferably composed of hard wood, but may be made of metal or any other suitable material and of any suitable length, width, and thickness, the size of course corresponding with the work to be done. It may also be supported in any suitable manner. In the instance shown the die is provided with a tenon, *x*, and shoulder *m*, the tenon being inserted in a horizontally-arranged mortise formed in the upper portion of a fixed standard, B, and secured by keys *t* and cross-pins *f*. The die is provided with a series of holes *g h k*, which pass transversely through it from side to side, the holes being preferably round and varying gradually in size, as shown in Fig. 1. They may, however, be oblong, square, or hexagonal, as shown in Fig. 2, or of any other suitable shape or size to qualify the die for properly performing its functions, and one or more holes may be used, in accordance with the requirements of the work.

In carrying out my improvement the skin C is loosely folded or rolled together on the dotted line *r* and drawn through the large hole *k* in the die, after which it is folded successively on the lines *v y z* and again drawn through said hole at each folding. After being drawn through the large hole *k*, as described, the skin is again folded in like manner and drawn at each folding through the medium sized hole *h*, the process being concluded by again folding and drawing it through the small hole *g*. If it is found that the grain has been sufficiently disintegrated or broken up by drawing the skin through one of the holes, as described, it will not be necessary to repeat the operation by drawing it through a smaller hole or holes.

It will be understood that the hole in the die through which the skin is drawn should be small enough to render the application of considerable force necessary to pull the skin through it, the strain on the skin stretching it and the die crowding its folds together, thereby imparting to the grain a peculiar and very beautiful finish which cannot be readily produced by any other means within my knowledge.

By folding the skin successively on the lines *r v y z* the grain will, in most instances, be more thoroughly disintegrated than when folded on one line only, although good results may be obtained by folding it continually on the same line and repeatedly drawing it through the die.

The outer edges or ends of the hole are rounded or chamfered slightly to prevent them from catching and injuring the skin.

The skin may be drawn through the die alternately from the opposite sides thereof, instead of being passed through from the same side at each folding, if preferred.

By "folding" the skin I do not mean that

it is evenly folded or laid in plaits, but merely crowded together at each side of the central folding-line to enable it to be inserted in and through the die.

As I have made the process herein described the subject-matter of another application for Letters Patent, filed December 28, 1887, Serial No. 259,234, I do not claim the same broadly herein.

Having thus explained my invention, what I claim is—

In a device of the character described, the die A, provided with one or more holes and having the tenon *x*, in combination with the standard B, provided with a mortise for receiving said tenon, the keys *t*, passing through said tenon adjacent the outer edge of the standard, and the cross-pins *f*, passing through said keys, substantially as described.

CHARLES M. KIMBALL.

Witnesses:
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