No. 868,033. PATENTED OCT. 15, 1907.

M. THORER.

APPARATUS FOR STRETCHING HIDES AND SKINS.

APPLICATION FILED MAY 6, 1907.

Fig. 1

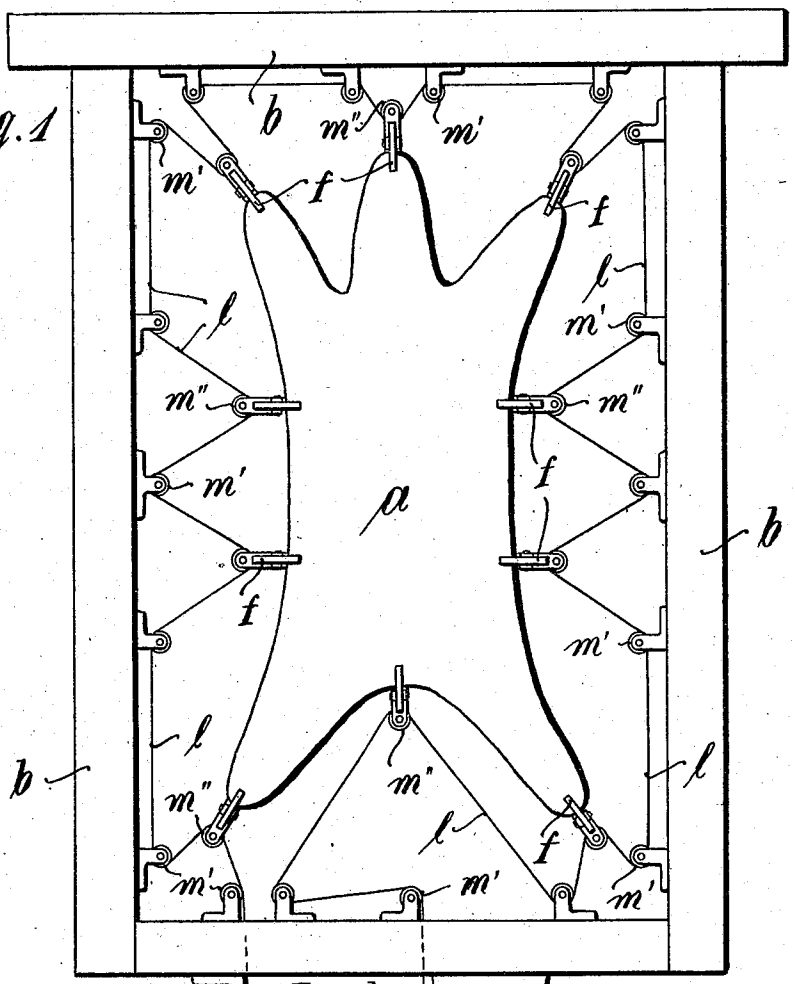
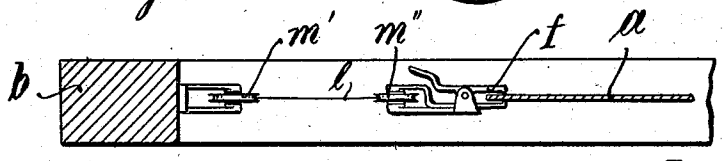


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

MAX THORER, OF LEUTZSCH, NEAR LEIPZIG, GERMANY.

APPARATUS FOR STRETCHING HIDES AND SKINS.

No. 868,033. Specification of Letters Patent. Patented Oct. 15, 1907.

Application filed May 6, 1907. Serial No. 372,049.

To all whom it may concern:

Be it known that I, MAX THORER, a subject of the King of Saxony, residing at Leutzsch, near Leipzig, in Germany, have invented certain new and useful Apparatus for Stretching Hides and Skins, of which the following is a specification.

This invention relates to apparatus for stretching hides and skins and its object is to provide for the equalization of strain thereon.

A construction embodying the invention is shown in the annexed drawing, in which

Figure 1 is a front-view of the apparatus and Fig. 2 a cross-section of a portion thereof, on a larger scale.

It is known to use, for stretching hides and skins, a frame into which the hide is fastened by means of a cord arranged in zig-zag fashion and alternately engaging the hide and frame. With this arrangement it is difficult to uniformly stretch the hide, since the sharp angles at which the cord is bent prevent uniform distribution of the tension. It is, however, essential that all parts of the hide are, as nearly as possible, subjected to equal strain, since otherwise it is inevitable that some parts of the hide will be excessively stretched and thereby damaged, and that the hide will be distorted.

The present invention secures uniform stretching by providing a frame having pulleys over which passes a single cord, and by causing the latter to pass over pulleys to which are connected grippers or the like adapted to engage the hide. When the hide has been connected to these latter pulleys, by means of the grippers, a pull exerted on the free end of the cord causes the hide to be uniformly stretched in all directions and subjected to equal tension at all parts, since the pulleys cause the tension to be uniformly distributed.

The frame b is provided at suitable intervals with pulleys m^1 over which passes a cord l. The latter passes round the frame, and returns to the point from which it started. Between the pulleys m^1 or some of them the cord l passes over pulleys m'' connected to fastening devices f, for example spring-clips or grippers (Fig. 2) by means of which the pulleys m'' can be connected to the hide a. To enable the frame to be used for hides of different sizes, neither end of the cord is permanently attached to the frame, but one end is engaged by a clamp k comprising a lever and eccentric. The other end of the cord is attached to a spring-barrel n containing a helical spring which keeps the cord in a state of tension.

Fixed to the spring-barrel is a ratchet-wheel o engaged by a pawl p to prevent the unwinding of the cord. When the hide has been placed in the frame and stretched the spring-barrel takes up the slack of the cord, and the ratchet gear prevents re-contraction of the hide. If the hide to be treated is very thin the pawl is preferably disengaged, to obviate risk of tearing the hide when the latter contracts on drying. The force with which the cord is pulled determines the extent to which the spring is tensioned, and the tension applied to the hide can thus be regulated according to the strength of the latter.

For removing the hide from the frame it is only necessary to exert slight pressure on the spring-clips, since the action of the spring-barrel on the cord immediately causes the clips to be pulled away from the hide.

What I claim as my invention and desire to secure by Letters Patent of the United States is:—

1. Apparatus for stretching hides and skins, the combination with a stretching-frame and pulleys m' mounted thereon of grippers f provided with pulleys m'' a single cord passing round said pulleys m' m'', and means of attachment for the ends of said cord.

2. Apparatus for stretching hides and skins, the combination with a stretching-frame and pulleys m' mounted thereon of grippers f provided with pulleys m'' a single cord passing round said pulleys m' m'', and means of attachment for the ends of said cord, said means of attachment comprising a spring barrel for applying a continuous and regulatable tension to the cord.

In witness whereof I have signed this specification in the presence of two witnesses.

MAX THORER.

Witnesses:
HERM. SACK,
RUDOLPH FRICKE.