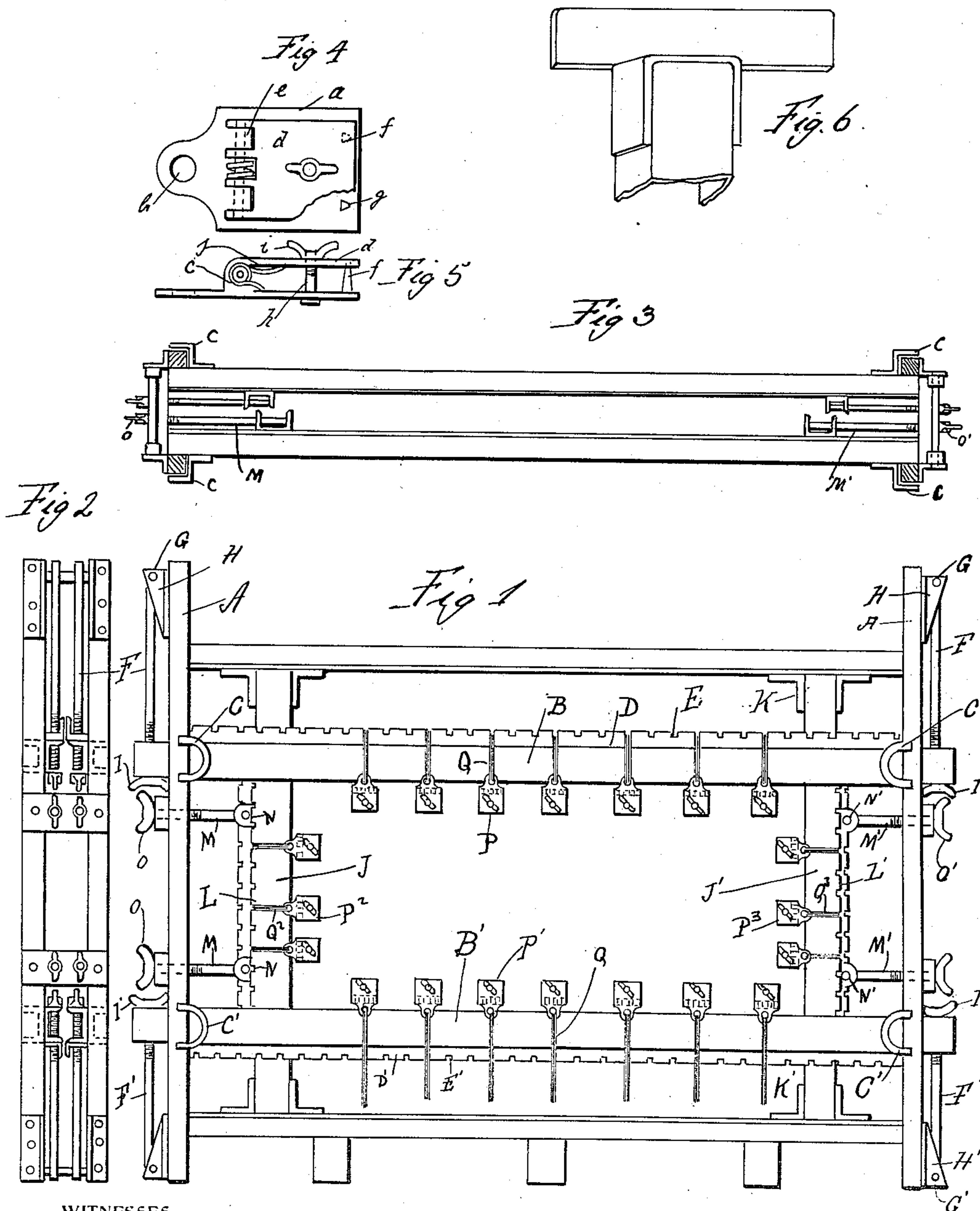


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PATENTED AUG. 18, 1908.

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LEATHER STRETCHER.

APPLICATION FILED SEPT. 17, 1907.



WITNESSES

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LEATHER-STRETCHER.

No. 896,387.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed September 17, 1907. Serial No. 393,382.

To all whom it may concern:

Be it known that we, WILLIAM F. HYSORE and CHARLES G. BARNSTEAD, citizens of the United States and Canada, respectively, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Leather-Stretchers, of which the following is a specification.

10 Our invention relates to a new and useful improvement in leather stretchers, and has for its object to provide an exceedingly simple and effective device of this description by which a whole hide of leather or any part
15 thereof may be placed in position upon the stretching frames without wasting the stock by cutting off the edges to straighten that portion which is to be drawn upon, thus making a saving in the measurement of the
20 completed stock.

Another advantage of our improvement is that the leather may be stretched in any direction required from the center or "backbone", thereby giving an increased measure
25 of from 15 to 20 per cent. from the original size of the stock before being stretched.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth
30 and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, we will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation of our improved stretcher so constructed as to stretch two
40 pieces of leather at the same time. Fig. 2, an end view. Fig. 3, a top edge view. Fig. 4, a detail view of one of the clamps for engaging the edges of the leather. Fig. 5, an edge view of this clamp. Fig. 6, a detail
45 perspective of one end of one of the adjustable bars of the stretching frame.

In carrying out our invention as here embodied, A represents the stationary frame, which is composed of suitable uprights and
50 cross-bars for making a rigid structure that may be secured to the floor, and B and B' are horizontal stretching bars, near the ends of which are secured the guide strips C and C' embracing one side of the uprights of the

frame so as to hold the stretching bars in 55 place and permit them to slide vertically upon said uprights. The bar B has secured to its upper edge the channel iron D, in which are formed the notches E, while the bar B' has the channel iron D' secured to its lower 60 edge, having the notches E' formed therein.

F represents two bolt rods, which are pivoted at G in the brackets H, and these rods pass through the ends of the stretching bar B, and have threaded upon their lower ends 65 the thumb nuts I, and when these thumb nuts are manipulated the bar B will be raised or lowered as the case may be. F' are also bolt rods, which are pivoted at G' to the brackets H' and pass through the ends of the 70 stretching bar B', and have threaded thereon the thumb nuts I' for the same purpose as that described in connection with the bar B.

J and J' are two upright stretching bars, each of which is provided with a shoe K at 75 each end thereof adapted to travel upon and be guided by the horizontal bars of the frame, and L and L' are notched channel irons secured upon the outer edges of these upright stretching bars, for the purpose 80 hereinafter set forth.

M are bolt rods pivoted at N to the upright stretching bar J, and passing through one of the upright bars of the frame, having threaded thereon the thumb nuts O, whereby 85 this stretching bar may be drawn outward when occasion requires. M' are also bolt rods, pivoted at N' to the upright stretching bar J' and passed through the opposite upright bar of the frame, and having threaded 90 thereon the thumb nuts O', by which this stretching bar may be drawn outward.

P represents a series of clamps, having the chains Q secured thereto, said chains being adapted to be hooked into the notches E of 95 the channel irons D, and thus be held in place, and as is obvious, this arrangement will permit the adjustment of the clamps to the varying outline of the leather to be stretched. P' are also a series of clamps, 100 having the chains Q² attached thereto, which latter are adapted to engage the notches E' of the channel irons D'. Likewise the clamps P² carrying the chains Q² adapted to engage the notches in the channel 105 iron L are intended for the same purpose as that described in connection with the clamps P. Also the clamps P³ with their chains Q³

for engagement with the notches of the channel iron L' are for the same purpose.

From the foregoing description the operation of our improvement will be as follows:—

- 5 The clamps P, P', P² and P³ are secured around the edges of the leather to be stretched and the chains of these clamps are attached to their respective stretching bars, as before described, after which the proper
- 10 manipulation of the thumb nuts I, I', O and O' will draw these stretching bars outward from the center and consequently stretch the leather to the degree desired, and as the stretching bars are independent of each other
- 15 the stretching of the leather can be so carried on as to produce the best results, as for instance, the upper and lower stretching bars may be drawn apart to a greater degree than the upright stretching bars so as to stretch
- 20 the leather from the "backbone", or the leather may be stretched to a greater degree lengthwise than sidewise by giving the upright stretching bars the greatest amount of movement, as will be readily understood.
- 25 As here shown two sets of stretching bars are arranged side by side in the same frame so that two pieces of leather may be stretched upon the frame at the same time, thus economizing space and material, and lessening
- 30 the cost of construction, as it will require less space and less material to arrange the two series of stretching bars upon the same frame than to provide two separate frames for each series of stretching bars.
- 35 In Figs. 4 and 5 we have shown the construction in detail of the clamps, and each of these clamps consists of a base plate *a*, having a hole *b* in the rear end thereof for the attachment of a chain, and upon this base
- 40 plate are the lugs *c*, to which is pivoted the jaw *d* by the pintle *e*. *f* represents two teeth, preferably triangular in cross section, as indicated in dotted lines in Fig. 4; and the points of these teeth are adapted to enter
- 45 the holes *b* formed in the base plate for that purpose. *h* represents a threaded bolt projecting upward from the base plate and through a suitable hole in the jaw, and having threaded thereon the thumb nut *i*.
- 50 This arrangement provides for forcing the jaw toward the base plate against the action of the spring *j*, the latter being intended to force the jaw open when the thumb nut is backed off. In securing these clamps to the
- 55 leather to be stretched, the jaw is opened and the edges of the leather inserted between the base plate and the points of the teeth *f*, after which the thumb nut is screwed down so as to drive the points of the teeth
- 60 through the leather and into the holes *g*. This will securely attach the clamps to the

leather and prevent any slipping or tearing of the same.

Of course we do not wish to be limited to the exact details of construction here shown 65 as these may be varied within certain limits without departing from the spirit of our invention.

Having thus fully described our invention, what we claim as new and useful, is— 70

1. In a leather stretching device, the combination of a stationary frame, horizontal stretching bars arranged to slide upon said frame, means for drawing said bars apart, a series of clamps adjustably attached to the 75 bars for holding the leather, upright stretching bars, means for moving said upright bars apart, a series of clamps for each of said upright bars, and means for attaching said clamps to said upright bars, as specified. 80

2. The herein described combination of a stationary frame, horizontal stretching bars arranged to slide upon said frame, a channel iron secured to said bars, said channel irons having notches therein, a series of clamps for 85 each horizontal bar, chains to which said clamps are secured, said chains adapted to engage said notches, means for drawing said horizontal bars away from each other, upright bars, notched channel irons carried by 90 said upright bars, a series of clamps for each upright bar, chains secured to said clamps and adapted to engage the notches in the channel irons and means for drawing the upright bars away from each other, as specified. 95

3. The herein described combination of a stationary frame, horizontal bars, strips attached to said stretching bars in such manner as to hold and guide said bars upon the frame, pivoted screw bolts passing through the ends 100 of said bars, thumb nuts threaded upon said screw bolts, upright stretching bars, shoes secured to the ends of said upright bars for holding and guiding said bars upon the frame, threaded bolts pivoted to the upright 105 bars, said bolts passing through the frame, thumb nuts run upon the last named threaded bolts, notched channel irons secured to each of the stretching bars, a series of clamps for each stretching bar and chains secured to 110 said clamps and adapted to be adjustably attached to the channel irons by engagement with the notches therein, as specified.

In testimony whereof, we have hereunto affixed our signatures in the presence of two 115 subscribing witnesses.

WILLIAM F. HYSORE.
CHARLES G. BARNSTEAD.

Witnesses:

S. M. GALLAGHER,
E. N. SCHOFIELD.