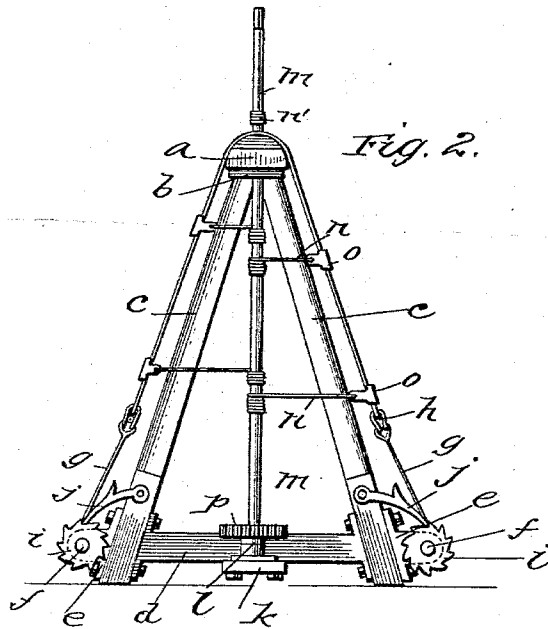
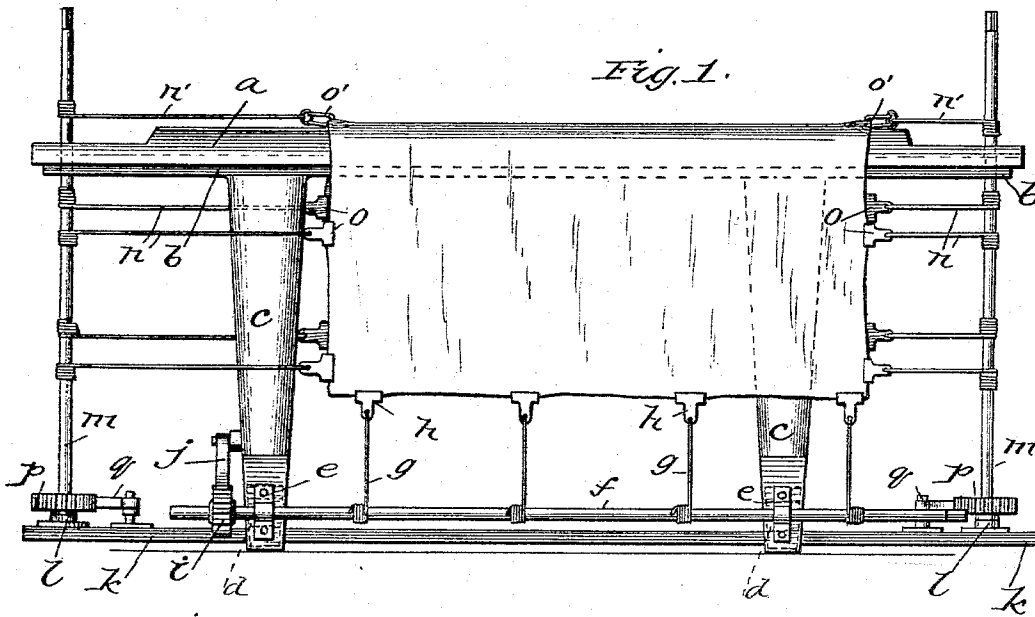


(No Model.)

L. F. CAUFFIELD.
LEATHER FRAME.

No. 490,338.

Patented Jan. 24, 1893.



Witnesses
E. M. Smith Davis
Charles H. Muzzey

Inventor
Luke F. Cauffield
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UNITED STATES PATENT OFFICE.

LUKE F. CAUFFIELD, OF ASHTABULA, OHIO.

LEATHER-FRAME.

SPECIFICATION forming part of Letters Patent No. 490,338, dated January 24, 1893.

Application filed October 8, 1892. Serial No. 448,211. (No model.)

To all whom it may concern:

Be it known that I, LUKE F. CAUFFIELD, a citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Leather-Frames, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in devices for stretching leather; and it has for its object to provide a device by means of which leather may be stretched in any direction desired, or in all directions, as the exigencies of the case may require.

The invention relates to that class of leather frames covered by my former patent No. 484,137, issued October 11, 1892, and consists in the novel combination and arrangement of parts hereinafter described, and claimed.

In the drawings:—Figure 1 is a side elevation showing the parts in operative position; and Fig. 2 is an end elevation.

Referring to the drawings by letter, *a* designates the horizontal convex stretching-beam which is supported by the horizontal beam *b*, and this beam is supported by the diverging legs *c c* located near the ends thereof, as shown. These legs *c c* are connected and braced at their lower ends by the cross bar *d*; and on their outer sides near the lower ends thereof are secured bearings *e e* for the longitudinal shafts *f f*. To the shafts *f f* are secured, at suitable intervals, cords or chains *g* and to the free ends of these cords are secured clasps or grippers *h* which grip the lower horizontal edges of the leather to be stretched. A gear or ratchet-wheel *i* is secured on each of these shafts, and located in position to engage the teeth of said wheel to prevent it turning, is a pawl *j*; and one end of each of these shafts is squared to receive a handle or crank for revolving it.

The leather to be stretched is placed over the beam *a* and the clasps *h* are secured to its lower edges. The shafts *f* are then revolved winding up the cords *g* and drawing down the leather on each side of the stretching beam until the desired tension is reached, when the shafts may be locked, and the leather held at the desired tension, by means of the pawls and ratchet-wheels *i* and *j*.

To provide for stretching the leather end-

wise or longitudinally of the frame I secure to the middle of the cross-bars *d* the longitudinal beam *k*, and on this beam near the ends thereof I mount the bearings *l* for the lower ends of the vertical shafts *m, m*. These shafts pass upwardly through the beams *a* and *b* near the ends thereof, and are squared at their upper ends to receive a handle or crank for revolving them. To the shafts *m* are secured one end of each of the cords *n*, the other ends of said cords being secured to clasps or grippers *O O* which grasp the vertical edges of the leather. Above the beam *a* are secured to the shafts *m*, cords *n'*, which are provided with the clasps *O'* for gripping the leather at the top of the stretching-beam. On the shafts *m* near their lower ends are secured the ratchet wheels *p*, and located near said wheels in position to engage their teeth and thereby prevent said wheels turning are the pawls *q*.

When it is desired to stretch the leather longitudinally of the frame its vertical edges are grasped by the grippers *O*, one half the number of grippers at each end of the frame being secured to the leather on each side of the legs *c*. The shafts *m* are then revolved and the leather drawn outwardly until the desired tension is secured, when the shafts may be locked by means of the pawl and ratchet described, and the leather retained in its stretched position.

The object of providing the cords *n'* and clasps *O'* above the beams *a* is that that portion of the leather resting on the beams may be drawn outwardly, effectually preventing any wrinkling or buckling of the leather at that point when it is being pulled downwardly by the clasps *h* and cords *g*.

The outer sides of the legs *c* are rounded in order that the leather will not be injured by contact with the legs while it is being operated upon.

The grippers or clasps designed for use on this machine are the same as those covered by Letters Patent No. 484,137 hereinbefore mentioned, said clasps being so constructed that the tighter their attached cords or chains are drawn the tighter they grip the leather.

Having thus fully described my invention what I claim is:

In a leather-stretching machine, the combi-

nation of a frame, a stretching-beam supported thereon, devices for engaging the horizontal edges of the leather and drawing the same taut over the beam, a vertical shaft
5 journaled at each end of the frame, means for locking these shafts against rotation, cords connected at intervals to these shafts and carrying means for gripping the vertical edges
of the leather, a cord connected to each of
10 the shafts near its upper end and carrying

means for gripping that portion of the leather adjacent to the beam, whereby gathering on the beam is prevented, substantially as described.

In testimony whereof I affix my signature in 15
presence of two witnesses.

LUKE F. CAUFFIELD.

Witnesses:

F. H. WOODBURY,
A. C. WHITE.