Jan. 9, 1934. M. M. PERLSTEIN 1,942,728

CLOTH CLAMP

Filed May 29, 1931

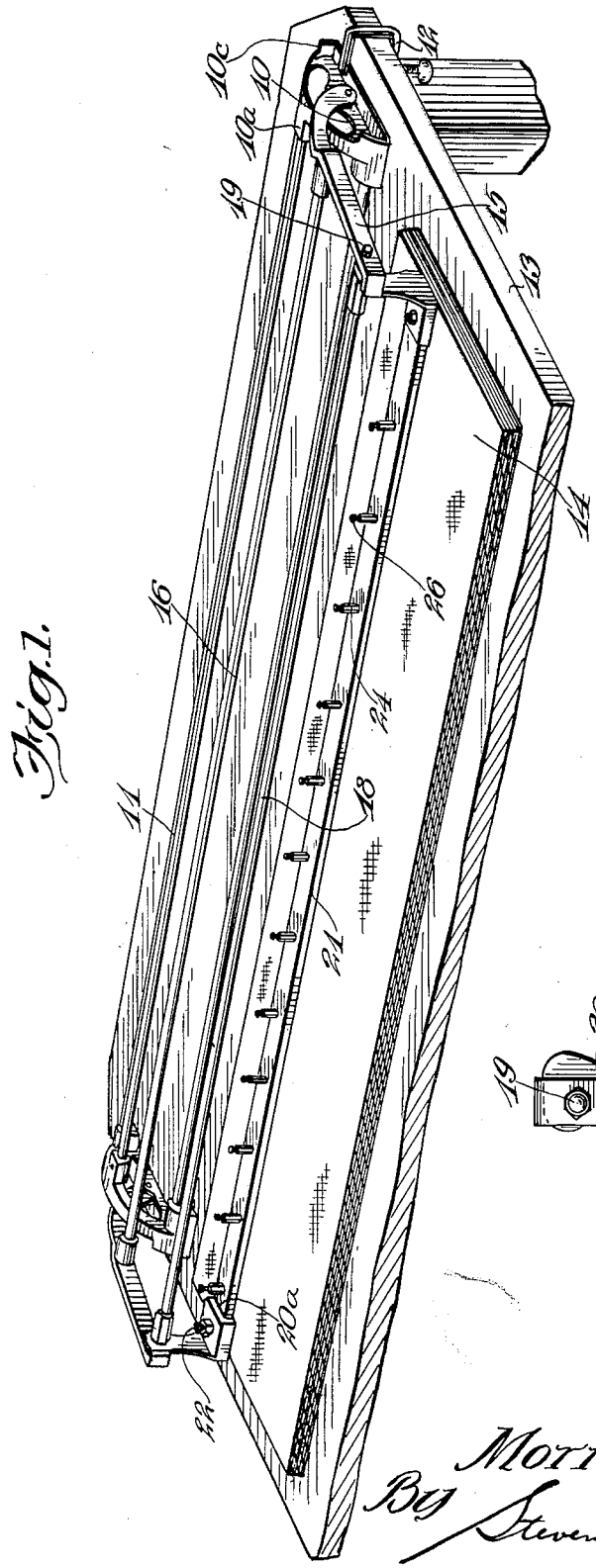


Fig. 1.

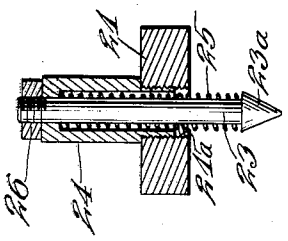


Fig. 4.

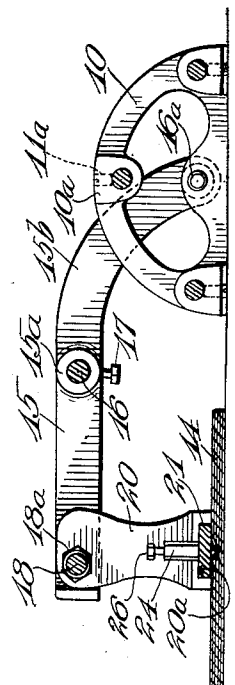


Fig. 2.

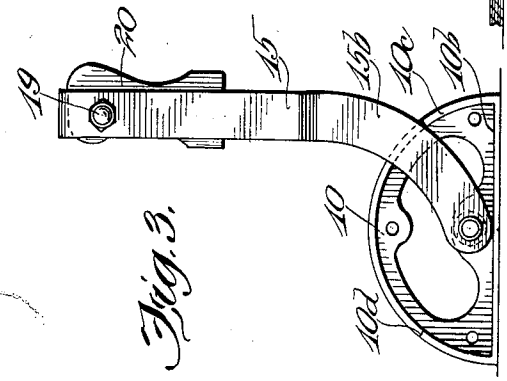


Fig. 3.

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CLOTH CLAMP

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4 Claims. (Cl. 164—79)

My invention relates to tailor shop equipment, and more particularly to devices used for holding down or clamping cloth on the cutting tables, and my main object is to provide a device of this kind which is simple and efficient.

A further object of the invention is to design the novel cloth clamp with means to adjust itself to inequalities in the level of the table or cloth, whereby to engage the cloth uniformly.

Another object of the invention is to design the clamping portion thereof on a pivot, whereby to be readily swung out of the way and with little effort.

With the above objects in view and any others that may suggest themselves from the specification and claims to follow, a better understanding of the invention may be had by reference to the accompanying drawing, in which—

Fig. 1 is a perspective view of the novel cloth clamp in working position on a cloth cutting table; and

Fig. 2 is a cross section of the embodiment shown in Fig. 1; and

Fig. 3 is an end view of the clamp showing its movable portion swung away; and

Fig. 4 is a cross section of a detail.

When cloth plies are stacked on a cutting table, they are unfolded from the bolt and extended to a considerable length along the table. The ordinary method of holding a length of cloth is to place weights thereon at intervals, this method having the disadvantages that some lengths are laid unevenly or too loose, and that the weights must be picked up and taken away to allow a new length to be laid. I am aware that some impaling means has been applied at the beginning of the cloth stack to hold each new length at its source, but such means does not function as a clamp and subjects the operator's hands to frequent injury or discomfort. In my embodiment, a clamping means is provided which is easy and safe to handle and contains none of the disadvantages of prior methods.

Referring specifically to the drawing, the base of the device is composed of a pair of end pieces 10 connected by stay rods 11 to make a rigid structure. The end pieces are preferably of cast iron and have inwardly projecting bosses 10*a* which are made with recesses to receive the ends of the rods 11, these being clamped by set screws 11*a* directed through the bosses. While the end pieces may be of any design, they are preferably arched and formed with outward base flanges 10*b* which are engageable by screw clamps 12 (see Fig. 1) to fasten the base to the top of a cloth cutting table 13. The device is secured at one end of the table, such end being at the point of origin from which the plies of a given cloth stack 14 are laid.

The unit which is movable to engage the cloth stack originates with a pair of arms 15 applied next outside the base end pieces 10 and having one of their ends pivotally applied to such bases as indicated at 16*a*. The medial portions of the arms 15 are made with inward bosses 15*a* which are recessed to receive a stay rod 16 and also tapped to receive set screws 17 to secure the stay rod to the arms.

The outer end portions of the arms 15 receive a stay rod 18 between them, the latter being extended through apertures in the arms to receive external cap nuts 19. The rod 18 also has an enlargement 18*a* near the arms 15 and so spaced as to permit the pivotal suspension of hangers 20. These are L-shaped having their bases directed inwardly, and are intended to swing free from the stay rod 18. The bases of the hangers 20 are recessed as indicated at 20*a* to receive a long horizontal bar 21, this bar being suitably secured by bolts 22. Along the length of the bar is a series of pointed pins 23, these projecting downwardly from the bar and operating in sockets 24 which are secured from above into tapped bores 21*a* made in the bar. A spring 25 is interposed between the head 23*a* of each pin and the bottom of the socket, and the pin rises through the said bottom in screw-threaded form to receive a nut 26. The spring 25 is a compression type and normally maintains the pin in downwardly projecting position, as indicated in Fig. 4.

It will be noted that the arms 15 extend from that source with a curvature 15*b*, whereby to locate their ensuing portions in a low horizontal position.

The bar 21 is thus easily placed upon the starting end of the cloth stack 14, and owing to its weight and that of its associated parts will hold such end down firmly. Thus, the balance of the top length of cloth may be unfolded and drawn to lie flatly on the balance of the stack. The pins 23 are not sufficiently sharp to pierce the cloth, but indent it sufficiently to prevent the deviation of the plies in any direction. Also, should portions of the table be warped or out of level, causing the surface of the stack to be uneven in height, the spring construction of the pins will cause them to take up the irregularities,

exerting a uniform pressure upon the stack of its entire width.

The stay rod 18 serves as a handle to enable the clamping unit to be lifted and swung back out of the way when it is not needed for use, as indicated in Fig. 3. In this position, the curved portions of the arms 15 rest against ledges 10*c* forming continuations of the base flanges 10*b* in an outward direction, so that these ledges form stops to prevent the extreme sweep of the unit. Likewise, inwardly located ledges 10*d* are similarly formed, in order to prevent the forward swing of the unit beyond a predetermined position. It will be seen that the novel cloth clamp furnishes a simple yet substantial apparatus for the purposes anticipated. The base unit is of a skeleton yet rigid construction; and the clamping unit is also of few parts which have sufficient weight to apply the requisite pressure to the top of the cloth stack. In operating the device, the clamping unit is not contended with as the starting end of a new cloth ply is laid and adjusted in place, as such unit is designed to be swung aside as soon as the operator returns to the point of origin to start a new cloth ply. The device is thus entirely out of the way as the new ply is handled and laid, yet the clamping unit is immediately applicable if the operator is about to unfold the length of the ply. In conclusion, it is apparent that the device is sufficiently simple for economical production and its parts are of a type to serve without necessity for adjustment or repair for long periods.

I claim:—

1. A cloth clamp comprising laterally-spaced standards, arms pivoted at medial points in the outer faces of the standards for rotary motion, cloth clamping means carried by the outer portions of the arms, and projections from said faces on both sides of the pivot and adapted to receive the arms at one end of their travel for rest and shortly beyond the pressing zone at the other end of their travel for safety.

2. A cloth clamp comprising a base, brackets pivotally attached to the sides of the base and close to the bottom thereof, said brackets rising in forward direction from the pivots, and a frame horizontally extended from the brackets to a position over the cloth, said frame being of a weight to press down on the cloth.

3. A cloth clamp comprising a base, a frame horizontally pivoted to the same, and a hanger suspended over the cloth in free pivotal relation to the frame, such hanger being weighted and by its free suspension descending in a vertical course to press down on the cloth as the frame is lowered upon the latter.

4. The structure of claim 3, said hanger including a horizontal base bar having a flat and wide bottom surface to serve as a press for the cloth.

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