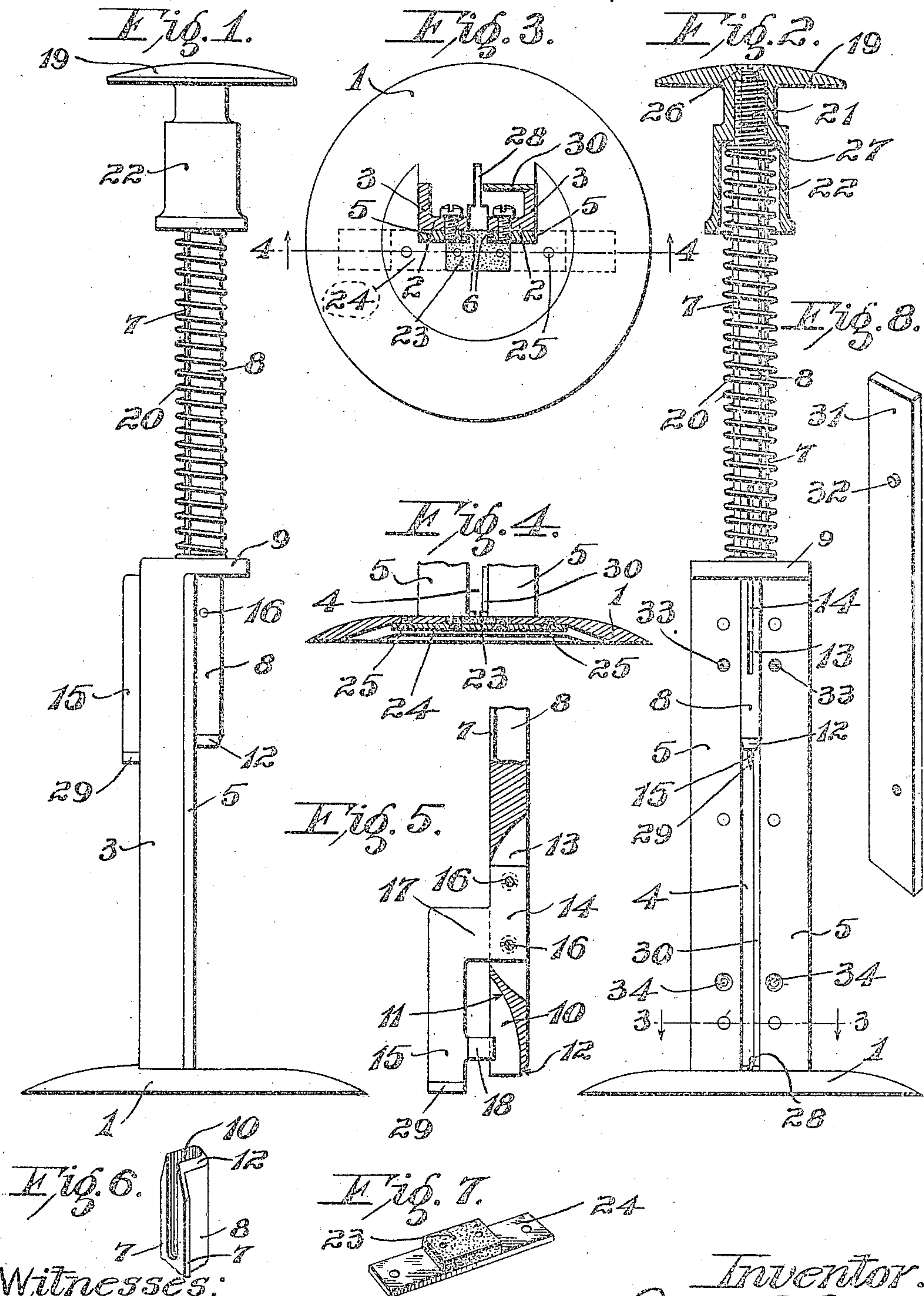


J. B. GURY.
CLOTH NOTCHING MACHINE.
APPLICATION FILED MAR. 1, 1909.

952,446.

Patented Mar. 22, 1910.



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UNITED STATES PATENT OFFICE.

JOHN B. GURY, OF ST. LOUIS, MISSOURI.

CLOTH-NOTCHING MACHINE.

952,446.

Specification of Letters Patent. Patented Mar. 22, 1910.

Application filed March 1, 1909. Serial No. 480,569.

To all whom it may concern:

Be it known that I, JOHN B. GURY, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Cloth-Notching Machines, of which the following is a specification.

This invention relates to cloth notching machines, and more particularly to machines for making notches in the margins of cut patterns of cloth for wearing apparel in order to mark or indicate certain parts of the work in making up the garments.

The invention has for its principal objects to provide for the cutting of a marginal groove or slit in a pile of cut patterns or layers of cloth, to insure a clean and uniform cut through the pile from the topmost to the lowermost layer thereof, to simplify the construction, facilitate adjustments and secure other advantages hereinafter more fully appearing.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawings forming part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a side elevation of a cloth notching machine embodying my invention; Fig. 2 is a front elevation of said machine; Fig. 3 is a horizontal section through the supporting standard taken on or about the line 3—3 of Fig. 2; Fig. 4 is a vertical section taken on or about the line 4—4 of Fig. 3; Fig. 5 is a fragmentary view, partly in elevation and partly in section, showing the form and arrangement of the cutters; Fig. 6 is a fragmentary perspective view of the cutting end portion of the cutter bar; Fig. 7 is a perspective view of the cutter block and the resilient supporting member therefor; and, Fig. 8 is a detail perspective view of the supplemental plate.

The machine comprises a foot or base plate 1 having an upstanding member or standard thereon. Preferably, the base plate is circular and slightly rounded or beveled around its marginal portion so as to provide a sharpened edge which will readily slide under a layer of cloth. The standard is preferably angular or channel shape in cross section, comprising a flat front portion 2 and side flanges 3. The front portion 2 is slotted lengthwise as at 4; and on each side of the slot is secured a plate 5. The inner

edges of these plates 5 are rabbeted so as to constitute, with the adjacent edges of the slotted portion of the standard a grooved slideway 6 for flanges or ribs 7 on a cutter bar 8. The major portion of this cutter bar is substantially T-shape in cross section, the edge of the stem portion being slightly rounded. At the top of the standard is an overhanging portion or ledge 9 which is provided with a perforation corresponding to the shape of the cutter bar which projects upwardly therethrough. The lower end portion of the cutter bar has a longitudinal groove 10 in the middle of its rear face, which groove reaches nearly to the front face of the cutter bar at the lower end thereof. The bottom of the groove is turned or rounded upwardly and outwardly as at 11 until it terminates at the rear face of the cutter bar. The lower edge portions of the cutter bar surrounding the groove 10 are beveled or sharpened to a cutting edge 12, thereby forming a substantially U-shaped cutter. Above the grooved portion 10, the cutter bar is slotted as at 13 to receive the shank portion 14 of a knife blade or member 15. This blade is secured by screws 16 which are inserted through registering perforations in said shank and cutter bar. The knife blade proper depends from a lateral extension or neck portion 17 on the shank and it is provided with a widened lug or extension 18 which fits tightly in the slot 10, whereby the lower or cutting edge of the knife blade is rigidly held.

Coiled loosely about the upper portion of the cutter bar 8, between a knob 19 on the end thereof and the top of the standard, is a spring 20. Preferably, the upper end of the cutter bar is screw threaded as at 21 so as to fit in a screw threaded bore in the knob 19. The knob is provided with a depending sleeve or inverted cup portion 22 whose length and interior diameter is sufficient to permit the spring 20 to be compressed freely therein when the cutter bar is depressed. The relative normal positions of the lower edges of the knob and cutter bar are such that the lower edge of the portion 22 of the knob strikes the top of the standard directly after the cutting edge of the cutter bar comes in contact with a resiliently supported cutter block 23. That is, the cutter block 23, which is preferably hard compressed fiber, is mounted on the upper side of a slightly resilient metal plate 24, and is

loosely fitted in a rectangular opening in the base plate so that its upper face lies normally flush with the top of said base plate. The resilient metal plate 24 is somewhat
 5 elongated and it is fitted in a groove in the bottom side of said base plate and secured at its ends to the base plate by screws 25. By this arrangement, the cutting edge 12
 10 may be made to always strike solidly against the fiber block whose support will yield slightly, thereby permitting several successive cutting actuations without materially dulling the edge of the cutter. When the
 15 cutter has worn a groove in the fiber block 23, the knob 19 may be adjusted upwardly on the cutter bar 8 so that the cutting edge of the bar will first strike the bottom of the
 20 groove worn in the fiber block before the lower edge of the knob strikes the top of the standard. The knob may be locked in its adjusted positions on the threaded portion
 21 of the cutter bar by a screw 26 which is inserted through a countersunk hole in the
 25 top of the knob into a screw-threaded bore in the end of the cutter bar. In order to maintain an even tension of the spring regardless of the adjustments of the knob 19
 on the cutter bar, a washer 27 is screwed onto the threaded portion 21 against a shoulder
 30 provided at the base thereof.

At the rear of the standard a narrow slot 28 is provided in the base plate through which the cutting edge 29 of the knife blade
 15 15 passes at the end of its cutting stroke, and on the back of the standard is secured a guard or stop plate 30 whose inner edge is located close to the side face of the knife
 35 blade. If desired a second guard plate may obviously be provided on the standard on the side opposite to the above mentioned
 40 plate 30. In such a case the knife blade would work in a narrow groove provided by the space between the two guard plates. However, in practice a single plate as shown
 45 has been found to be sufficient.

When it is desired to vary the depth of the notches cut by the cutter 12, supplemental plates 31 of different thicknesses may
 50 be secured to the front plates 5. In this way, the effective cutting portion of the cutter may be varied. Preferably, these supplemental plates 31 have studs 32 thereon
 55 which are adapted to fit in recesses or perforations 33 in the upper portions of said front plates 5 and said supplemental plates 31 are adapted to be secured at their lower
 60 end portions by screws which may be inserted through perforations therein into threaded holes 34 provided in the lower portions of the foot plates 5.

In the operation of the device, when it is desired to cut a notch in the cloth, the foot
 35 or base plate is slid under the edge of the bottom layer of a pile of cloth or cut patterns whose edges are placed flush. The

front face of the standard is then held firmly against the edge of the pile and the
 cutter bar is forcibly and quickly depressed, thereby cutting a groove down the edge portion of the entire pile. The cutting edge of
 70 the cutter bar being adjusted to always strike solidly upon the resiliently supported fiber block, the bottom layer of cloth will be cleanly cut. Owing to the upward curve
 75 of the groove in the cutter bar, the small pieces or wads of material will be forced out from the top of said groove without clogging or hindering the cutting action of
 the cutter. When it is desired to merely cut a slit in the cloth the cutting knife 15 is
 80 used and the machine is manipulated in the manner above described.

Obviously, my device admits of considerable modification without departing from my invention, and therefore, I do not wish
 85 to be limited to the specific construction shown and described.

What I claim is:

1. A cloth notching machine comprising a foot plate having an opening in the top
 90 thereof, a standard on said foot plate, a vertically movable, reciprocatory cutter bar mounted on said standard and having a cutter at its lower end, and a resiliently supported
 95 cutter block of fiber or the like on said foot plate in coöperative relation to said cutter, said cutter block being located in said opening with its upper surface substantially flush with the upper surface of
 100 said foot plate.

2. A cloth notching machine comprising a foot plate having an opening in the top
 105 thereof, a standard on said foot plate, a vertically-movable, reciprocatory cutter bar resiliently supported on said standard, said cutter bar having a cutter at its lower end, a stop for limiting the downward stroke of
 110 said cutter bar, and a cutter block resiliently supported on said foot plate in position to be struck by said cutter just before the end of its downward stroke, said cutter block
 115 being located in said opening with its upper surface substantially flush with the upper surface of said foot plate.

3. A cloth notching machine comprising a
 120 foot plate having an opening in the top thereof, a standard on said foot plate, a vertically-movable, reciprocatory cutter bar resiliently supported on said standard, said
 125 cutter bar having a cutter at its lower end, a cutter block of fiber or the like resiliently supported on said foot plate in coöperative relation to said cutter, and an adjustable stop for limiting the downward stroke of
 130 said cutter bar, and whereby said cutter may be made to strike said cutter block just before the end of its downward stroke, said cutter block being located in said opening with its upper surface substantially flush with the upper surface of said foot plate.

4. A cloth notching machine comprising a base having a standard thereon, and a vertically-movable, reciprocatory cutter bar mounted on said standard, said cutter bar having its lower end portion grooved from its rear side and its lower edge sharpened, said groove decreasing gradually in depth to its upper end.

5. A cloth cutting machine comprising a base having an opening in the top thereof, a standard on said base, a vertically-movable, reciprocatory cutter bar mounted on said standard, said cutter bar having its lower end portion grooved from its rear side and its lower edge sharpened, thus providing a substantially U-shaped cutter, the bottom of the groove being turned outwardly at the top, a stop for limiting the downward stroke of said cutter bar, and a cutter block of fiber or the like resiliently supported on said base in a position to be struck by the cutting edge of said cutter bar just before the end of its downward stroke, said cutter block being located in said opening with its upper surface substantially flush with the upper surface of said base.

6. A cloth notching machine comprising a foot plate having a standard thereon, said standard being slotted vertically the length thereof, a vertically-movable, reciprocatory cutter bar mounted on said standard, said cutter bar having its lower end portion grooved from its rear side and its lower edge sharpened, thus providing a substantially U-shape cutter, a stop for limiting the downward stroke of said cutter bar, a cutter block resiliently supported on said foot plate in a position to be struck by said cutter just before the end of its downward stroke, and a knife blade secured to said cutter bar, said knife blade projecting rearwardly therefrom through the slot in the standard and depending downward, said foot plate having a slot therein through which the cutting edge of the knife blade is adapted to pass when said cutter is depressed its full stroke.

7. A cloth notching machine comprising a foot plate having a standard thereon, said standard being slotted vertically the length thereof, a vertically-movable reciprocatory cutter bar mounted on said standard, said cutter bar having its lower end portion grooved from its rear side and its lower edge sharpened, thus providing a substantially U-shape cutter, a stop for limiting the down-

ward stroke of said cutter bar, a cutter block resiliently supported on said foot plate in a position to be struck by said cutter just before the end of its downward stroke, and a knife blade having a shank portion fitted in a slot in said cutter bar near the lower end thereof, said knife blade projecting rearwardly through the slot in the standard and depending downwardly at the rear thereof, said foot plate having a slot therein through which the cutting edge of the knife blade is adapted to pass when said cutter bar is depressed its full stroke.

8. A cloth notching machine comprising a foot plate having a standard thereon, a vertically-movable, reciprocatory cutter bar mounted on said standard, said cutter bar having a cutter at its lower end, a knob adjustably mounted on the upper end of said cutter bar lengthwise thereof, means for securing said knob in its adjusted positions on said cutter bar, said knob having an inverted circular pocket portion surrounding said cutter bar, the lower edge of said pocket portion being adapted to strike the top of the standard to limit the downward stroke of the cutter bar, a spring coiled loosely about said cutter bar between the top of the standard and said knob, said spring being adapted to resiliently support said cutter bar in raised position and being also adapted to be compressed within the pocket of the knob as said cutter bar is depressed, and a cutter block resiliently supported on said foot plate in a position to be struck by the cutter prior to the contact of the knob with the top of the standard.

9. A cloth notching machine comprising a foot plate having a standard thereon, a vertically-movable, reciprocatory cutter bar having its cutting portion projecting laterally from the front face of the standard, and interchangeable plates adapted to be detachably secured to the front face of the standard to vary the distance therefrom to the outer edge of said cutting portion of the cutter bar.

Signed at St. Louis, Missouri, this 27th day of February, 1909, in the presence of two subscribing witnesses.

JOHN B. GURY.

Witnesses:

WM. P. CARR,
G. A. PENNINGTON.