J. APPELBAUM.

FABRIC CUTTING MACHINE.

APPLICATION FILED JULY 8, 1918.

1,299,536. Patented Apr. 8, 1919.

Fig. 1.

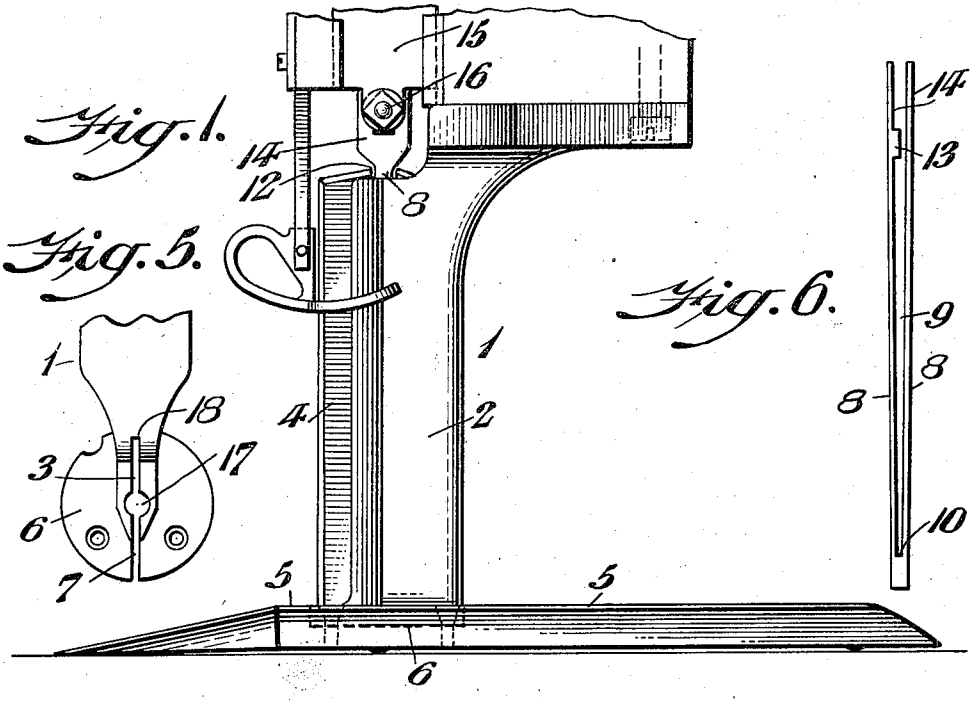


Fig. 5.

Fig. 6.

Fig. 2.

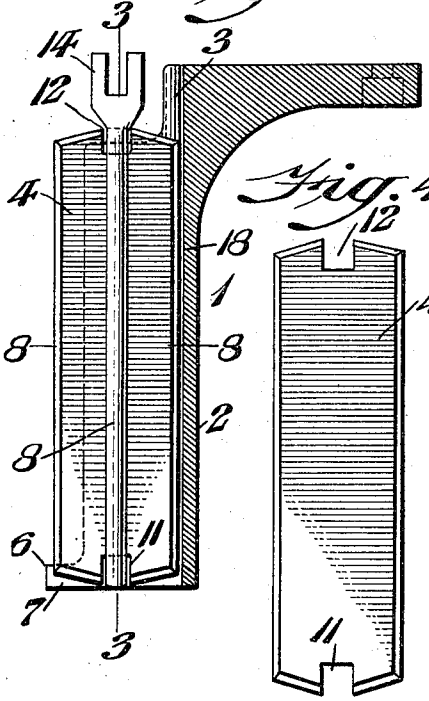


Fig. 4.

Fig. 3.

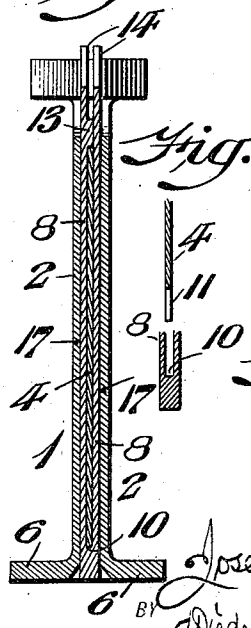


Fig. 7.

Fig. 8.

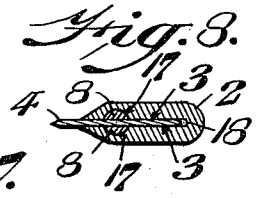


Fig. 9.

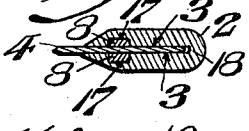
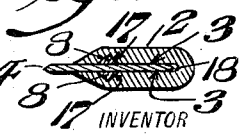


Fig. 10.



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FABRIC-CUTTING MACHINE.

1,299,536. Specification of Letters Patent. Patented Apr. 8, 1919.

Application filed July 8, 1918. Serial No. 243,766.

To all whom it may concern:

Be it known that I, JOSEPH APPELBAUM, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Fabric-Cutting Machine, of which the following is a specification.

My invention relates to an improvement in the blade of a fabric cutting machine, and consists of the novel construction of the blade with a plurality of cutting edges rendering the blade reversible for use.

It consists also of novel means for connecting said blade with the operating mechanism of the machine whereby the blade is steadied and guided true in its reciprocations.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, and so it is to be understood that the invention is not limited to the specific details shown and described, as long as they are within the spirit or scope of the claims.

Figure 1 represents a side elevation of the portion of a fabric cutting machine embodying my invention.

Fig. 2 represents a vertical section thereof.

Fig. 3 represents a vertical section on line 3—3 Fig. 2.

Fig. 4 represents a side elevation of the blade.

Fig. 5 represents a top or plan view of a portion of the device.

Fig. 6 represents a side elevation of a detached member of the device.

Fig. 7 represents a vertical section of a portion of the blade, and a portion of the member below the same separated therefrom.

Fig. 8 represents a transverse section on line 8—8 Fig. 2.

Figs. 9 and 10 represent transverse sections of modifications of portions of the device.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings.

1 designates a bracket which is stationarily connected at its upper end with the adjacent portion of the frame of a fabric cutting machine, which latter excepting the features of my invention applied thereto is well known in the art.

The main limb 2 of said bracket is divided at one side in vertical direction forming the vertically-extending runway 3 which is adapted to receive the reciprocating blade or cutter 4, the cutting edge of which extends forwardly from the edge of said limb 2 so as to enter the fabric that is placed on the base 5 of the machine, and cut through the same.

The limb 2 of the bracket has on its lower end the sustaining foot 6 which is screwed or otherwise firmly connected with the base 5, and has therein the vertically extending recess 7 which is in communication with the runway 3 in said limb 2, so that the lower portion of the blade 4 may enter said recess 7 on the descent of the blade. The blade has matched cutting edges respectively on its opposite ends, either edge of which may be presented to the front for cutting operation, and the blade is adapted also to be overturned so that the top of either cutting edge may be placed below and vice versa, thus adding to the efficiency of said cutting operation.

8 designates upright bars which are vertically separated forming between them the space 9 into which the blade 4 is adapted to be received, said bars being connected at the bottom by a piece of material integral therewith, the upper end of which piece forms the shoulder or rest 10 for the lower end of the blade, said end having the bifurcation 11 which is adapted to be seated on said shoulder. The depending side walls of said bifurcation 11 embrace the side walls of the bottom connecting piece of the bars 8, thus steadily supporting the lower portion of the blade in position on said connecting piece. The upper portion of the blade is formed with the bifurcation 12 which is adapted to receive the lug 13 on the inner side of one of the bars 8, it being noticed also that said bars are on opposite sides of the blade 4, and their upper ends have thereon the eyes 14 which are adapted to be connected with the slide head 15 of the machine by the bolt 16, or other means, and so being somewhat resilient may be brought together at the top, while their main lengths are pressed tightly against the sides of the blade, when owing to the lug 13, the bifurcation 12, the bifurcation 11, and the shoulder 10, the blade, and the bars are connected firmly with the blade

and vice versa, and the blade is prevented from outward displacement from the bracket.

On the inner sides of the walls of the runway 3 in the limb 2 of the bracket are the vertically extending grooves or channels 17, which are in communication with said runway and in which are adapted to be freely fitted the bars 8 so that the latter projecting from the sides of the blade as beads or ribs are guided in the bracket in the reciprocations of the blade, and so said bars and consequently the blade move steady in their reciprocations in the bracket, this being especially true of the blade whereby its cut is uniform and smooth.

The bars 8 may be half round as shown in Figs. 2 and 7, quadrilateral as shown in Fig. 9, or triangular as shown in Fig. 10, the result of operation being the same in either case, so I do not limit myself to the shape of said bars, but in all cases they are spaced on the blade and in the runway so the inner cutting edge of the blade does not contact with the inner or rear wall 18 of the runway and so is prevented from being dulled by said wall.

It is evident that when the bars are disconnected from the head 15, said bars and the blade may be withdrawn through the runway from the limb 2, and the blade may be removed from the bars for the purpose of sharpening the blade or reversing it, after which that bars may be reapplied to the blade and both reinserted in the runway, and the bars then re-connected with the head, the blade then being operative as before.

The bracket 1 in the present case comprises the standard on which the frame of the machine is sustained on the base 5 and secured thereon by the foot 6, as has been stated.

The bars 8 comprise rib-like members on the sides of the blade serving also to stiffen and strengthen the latter and keep it true in the direction of its length.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a fabric cutting machine, a bracket having a runway therein, a channel in the wall of said runway in communication with the latter, a removable and reversible blade slidably occupying said runway, a laterally projecting bar on the side of said blade secured thereto slidably occupying said channel, and means on the machine connected with said bar for reciprocating the latter and consequently said blade.

2. In a fabric cutting machine, a slidable and removable blade having bifurcations respectively on its upper and lower terminals, a carrier for said blade removably fitted thereto formed of a pair of resilient spaced apart bars, the lower terminals of which bars are connected by a member forming a shoulder on which the under wall of the lower bifurcation of the blade is seated, and whose side walls are adapted to embrace said piece, an inwardly projecting lug on the inner side of one of said bars adapted to enter the upper bifurcation of said blade, means on said bars for holding them closed on said blade, means for connecting said bars with an operating member of the machine and a guiding member on the machine, the same having therein a runway which said blade freely occupies and the walls of said runway having therein channels in communication with said runway which said bars freely occupy.

3. In a fabric cutting machine, a blade having bifurcations respectively on its upper and lower terminals, a carrier for said blade consisting of a pair of resilient bars occupying respectively opposite sides of said blade, said bars having at one end a piece connecting the same, the adjacent bifurcation of the blade being seated on the top of said piece and embracing the sides thereof, one of said bars having on its inner side a lug which is adapted to enter the other bifurcation of said blade, said bars having also on their upper ends means for closing the same tightly on the blade and forming a connection with the operating mechanism of the machine and a guiding member on the machine for said blade, the same having therein a runway which said blade freely occupies and the walls of said runway having therein channels in communication with said runway which said bars freely occupy.

4. In a fabric cutting machine, a blade having a bifurcation respectively on its upper and lower terminals, a bracket having therein a vertically extending runway in which said blade is slidable, spaced apart bars adapted to be fitted on opposite sides of said blade, the walls of the runway having therein vertically extending channels in communication with the runway, said bars freely occupying said channels and being slidable therein, a connection for the lower end of said bars, the lower bifurcation of the blade being adapted to be seated on said connection and embrace the sides thereof, an inturned lug on one of said bars adapted to enter the upper bifurcation of the blade, means on the machine connectible with said bars for imparting reciprocating motions to the latter and consequently to the blade.

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Witnesses:
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