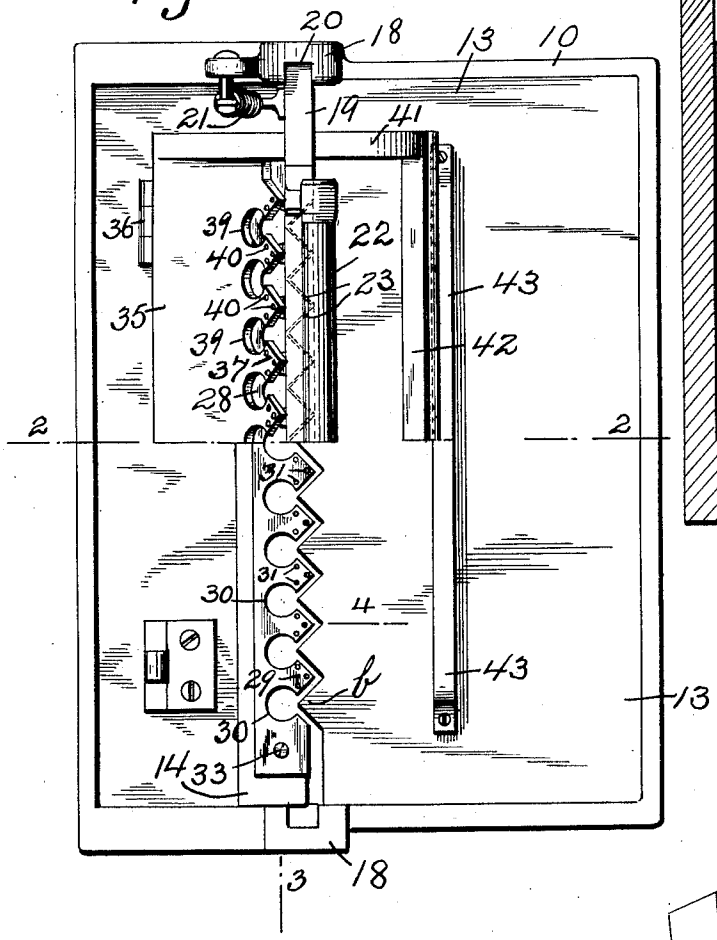
A. J. ROACH.

MACHINE FOR CUTTING FURS, SKINS, AND THE LIKE.

APPLICATION FILED MAR. 22, 1920.

1,357,727. Patented Nov. 2, 1920.

Fig. 1



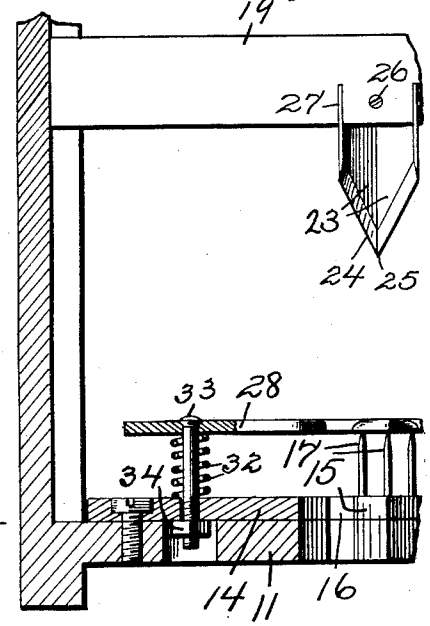


Fig. 3

Fig. 5

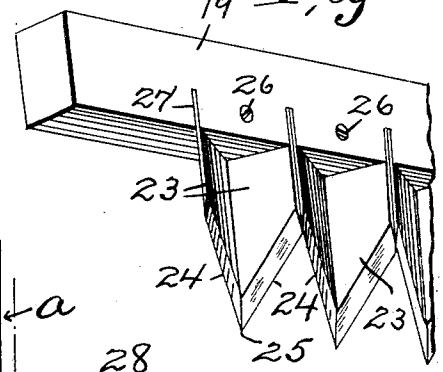
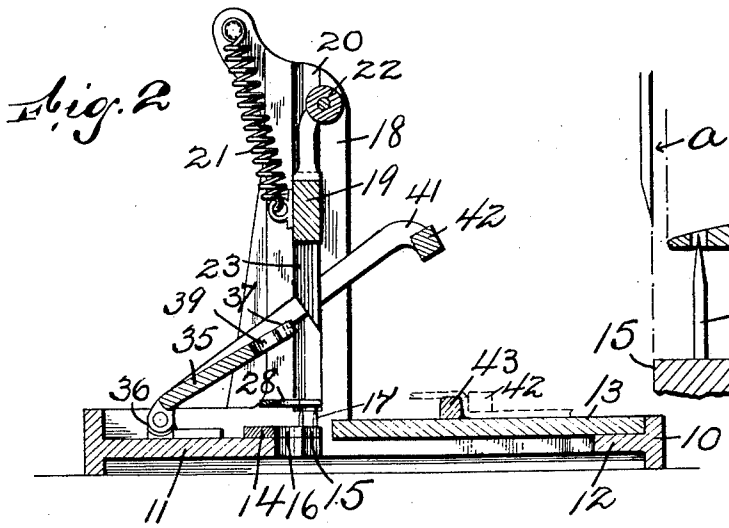


Fig. 2



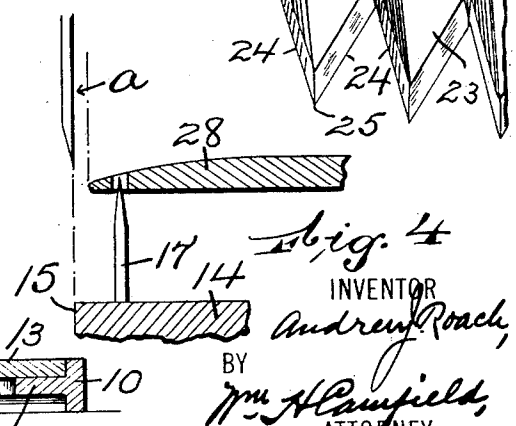


Fig. 4

INVENTOR
Andrew J. Roach,
BY
Wm. H. Canfield,
ATTORNEY.

UNITED STATES PATENT OFFICE.

ANDREW J. ROACH, OF NEWARK, NEW JERSEY.

MACHINE FOR CUTTING FURS, SKINS, AND THE LIKE.

1,357,727. Specification of Letters Patent. Patented Nov. 2, 1920.

Application filed March 22, 1920. Serial No. 367,590.

To all whom it may concern:

Be it known that I, ANDREW J. ROACH, a citizen of the United States, and a resident of Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Machines for Cutting Furs, Skins, and the like, of which the following is a specification.

This invention relates to an improved machine for cutting skins, furs and the like, and is particularly adapted for cutting the edges of furs that are joined together by sewing or similar means to form garments and the like. It is customary, in sewing furs, to prevent the location of a seam being seen from the front of the fur, to make the edges corrugated, these corrugations being preferably made like saw-teeth, that is, they are formed on zig-zag edges so that the interlocking projecting tooth-shaped parts can be sewed to not make a straight seam apparent.

The invention is designed to provide a machine which cuts furs in a short time, that is simple to operate, economically made and effective in its operation, whereby a skin can be quickly positioned, clamped, stretched, cut, removed and the material that has been cut off the edge also removed in a very short space of time.

The invention further consists in certain details of construction that are more fully described hereinafter and finally embodied in the claims.

The invention is illustrated in the accompanying drawing, in which Figure 1 is a top view of a machine of the improved construction, the lower half of the view of the knife and the clamping plate being removed. Fig. 2 is a vertical section on line 2—2 in Fig. 1. Fig. 3 is a detail section of one edge of the machine taken on line 3 in Fig. 1. Fig. 4 is an enlarged detail view taken on line 4 in Fig. 1, and Fig. 5 is a perspective view of one end of one type of knife used in the machine.

The invention comprises a base 10, which preferably has an annular flange, the back end of the machine having the base extended to form a platform 11, the front of the machine having a narrower flange 12 which supports the table 13. The front end of the table 13 and the rear edge of the platform 11 are spaced apart, the platform 11 supporting a cutter plate 14, the cutter plate being adapted to co-act with a knife to be hereinafter described to cut the edge of the skin or fur.

In the form shown I have illustrated a zig-zag or corrugated edge, the faces 15 of this corrugated edge of the cutter plate having their inner ends merging into the walls of circular recesses 16, thus forming a series of projections that have the form of an arrow head, within which arrow heads, and adjacent to the edges thereof, are arranged the prongs 17, which prongs are set back a little from the edge and are adapted to hold a skin, when it is in position, against lateral movement.

The guides 18 project up on each side of the machine and support the cutter bar 19 so that it can be slid up and down vertically in the guide-ways 20, being normally held up by suitable yielding means, such as the springs 21, one being arranged on each side of the machine to prevent binding, the cutter bar having suitable actuating means, such as the handle 22.

Secured to the bottom face of the cutter bar is a continuous zig-zag knife formed of the obliquely arranged blades 23, the cutting edges 24 of which are tapered so as to form a cutting point 25, the blades being held in position by suitable screws 26 which engage them on their converging faces and thus hold them from moving in the slots 27 in the cutter bar 19.

It will thus be seen that when the cutter is pushed down, the point 25 will engage the point of the arrow-shaped projections, and the blades, with their cutting edges 24, will shear along the faces 15 of the cutter plate so that the cut is well established, so that a smooth cut through the skin is made for the entire width of the knife and for its entire length, so as to provide a clean cut zig-zag edge.

It will be evident that different forms of knives can be used, such as, for instance, having a vertical flexible blade and setting it into a sinuous curved groove on the bottom face of the cutter bar, of course it being understood that any skilled mechanic would provide a similar sinuous cutter plate against which the knife will shear.

Mounted above the pegs 17, which pegs are finely pointed on their top edges, is a stripping plate 28 which has its front outline approximately corresponding with the outline

of the cutter plate, having the arrow-headed projections 29 and the circular recesses 30 alternating with them, and slightly in rear thereof the stripping plate having the openings 31, each opening being in line with a peg 17, so that when the stripping plate is pressed down the pegs project through it.

The stripping plate yields, and the yielding means shown consists of a spring 32 which abuts on the cutter plate and also on the clamping plate, the stripping plate being limited in its movement by a bolt 33 which is adjustable by means of the nut 34.

A clamping plate 35 is suitably mounted in rear of the stripping plate, in the form shown this mounting consisting of the hinges 36 fastened to the platform 11, the clamping plate having projecting heads 37 and recesses 39 to conform with the outline of the cutter plate and clamping plate and having the holes 40 which fit over the pegs 17, the clamping plate being operable by the arms 41 which are joined by a stretcher bar 42, which also serves as a handle, the stretcher bar 42 being disposed so that it projects behind the anchor strip 43 on the table 13, as shown in dotted outline in Fig. 2, so as to tighten or stretch a skin, the back end of which is held on the pegs 17.

As shown in Fig. 4, I prefer to form the edge of the clamping plate 28 so that it terminates in rear of the cutting face 16 of the cutter plate 14, so that a clearance *a* is provided, which clearance is desirable because when fur is held with the fur side down on the machine to be cut, this clearance gives a chance for the hair to project down and be brushed within the space between the front ends of the table and the rear edge of the cutter plate, and there is thus no short clipping of the hair adjacent to the edge of the skin of the fur.

When the device is to be used a skin is placed, usually with the fur side down, on the table 13 with its rear edge that is to be cut on the stripping plate, the point of the projection to the left of the table, as at *b* in Fig. 1, being usually the gage by means of which the fur is adjusted, so that the zigzag edges of the fur to be fitted to some other fur will be in alinement, this lateral back and forth adjustment being easy because the top face of the stripping plate is usually smooth, being preferably highly polished, and the springs 32 hold the stripping plate so that the fur does not come in contact with the sharp points of the pegs 17, and this adjustment being quickly secured, the stretcher bar 42 of the handles 41 are grasped and swung downward, the clamping plate 35 thus being pressed down on the skin and forcing the clamping plate, the skin and the stripping plate all down over the pegs, and after the pegs have passed through the skin and the clamping is being completed, the stretcher bar gives a slight tension on the skin by pulling it down over the anchor strip 43 and the skin is in position to be cut. The handle 22 is now forced down, which causes the knife to sever the edge of the skin from the main body of it, and the knife is then permitted to be again lifted by the springs 21. The clamping plate is now permitted to be raised, either by a suitable spring or it is raised by hand, and when it is in its upper position the stripping plate has been forced up by the springs 32, so that the severed parts from the edge of the skin or fur are lying on the stripping plate and can be swept off by one movement of the hand along the stripping plate, without danger of any injury to the workman by reason of engagement with the sharp points of the prongs, and also avoiding the necessity of lifting off small detached pieces which would otherwise be lodged around and between the prongs.

The machine is now ready for another cutting and the operation is again repeated.

It will be evident from this description that a great deal of time is saved in adjusting the fur to the proper place where it is to be cut, and also considerable time is saved in clearing away the cut portions from the table, at the same time assuring the operator of no injury by engagement with the pegs 17 in removing these pieces from the machine.

It will be understood that minor changes in the details of construction and in the arrangements of the parts can be resorted to without departing from the scope of the invention.

I claim:

1. A cutting machine comprising a cutter plate having means thereon for preventing lateral movement of material placed thereon, a vertically moving stripping plate adapted to slide over said means, yielding means for normally holding the stripping plate above said means so as to permit a free movement of the material when it is not engaged, a clamping plate disposed so as to be pressed on said stripping plate to force material on the stripping plate in engagement with said means, and a knife cooperating with said cutter plate to cut the material when it is clamped.

2. A cutting machine comprising a cutter plate having means thereon for preventing lateral movement of material placed thereon, a vertically moving stripping plate adapted to slide over said means, yielding means for normally holding the stripping plate above said means so as to permit a free movement of the material when it is not engaged, a clamping plate disposed so as to be pressed on said stripping plate to force material on the stripping plate in engagement with said means, a knife coöper-

ating with said cutter plate to cut the material when it is clamped, and a stretcher bar actuated with the clamping plate and adapted to stretch material after it is clamped.

3. A cutting machine comprising a base having a cutter plate thereon with a corrugated edge, a continuous corrugated knife adapted to coöperate with said edge to shear material, prongs adjacent to the edge of the cutter for holding the material, a yielding stripping plate normally above the top of said prongs and adapted to be pressed down over said prongs so that after material on said plate is cut and released it is stripped from said prongs, means for clamping said material on the clamping plate and thus adapted to force the stripping plate and the material over the prongs, and means for actuating said knife.

4. A cutting machine comprising a cutter plate, prongs on the edge of the cutter plate, a stripping plate, means for yieldingly mounting the stripping plate so that it can be forced down over said prongs and returned to its normal position above the prongs when the force is removed, and a table portion which coöperates with the stripping plate for normally supporting material to be cut, the edge of said stripping plate being inset from the cutting edge.

5. A cutting machine comprising a table portion having a cutter plate with a space between them adjacent to the edge of the cutter plate, prongs near the edge of the cutter plate, a stripping plate, a spring means for supporting the stripping plate normally above the prongs, the stripping plate having perforations so that it can be forced down over the prongs, a clamping plate pivoted in rear of said stripping plate and adapted to have its forward end pressed down on said stripping plate so that material is clamped between said stripping plate and the clamping plate, forwardly projecting arms on the clamping plate, a stretcher bar, an anchor strip on the table disposed so that the stretcher bar will stretch material held by the prongs over the anchor bar, and a knife adapted to cut against the edge of the cutter plate to sever material held in the machine.

In testimony that I claim the foregoing, I have hereto set my hand, this 20th day of March, 1920.

ANDREW J. ROACH.