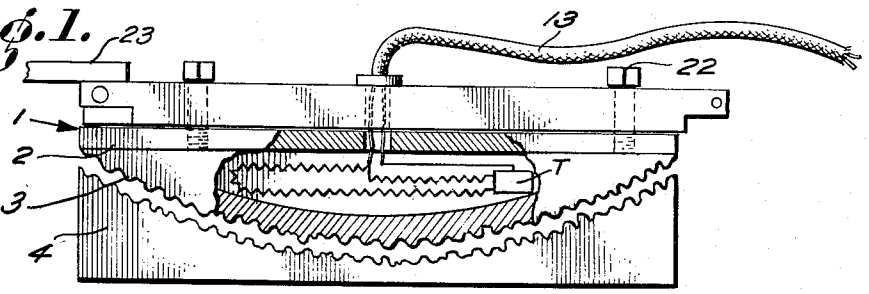
June 21, 1955 S. HARPER 2,711,095

THERMOSTATIC CONTROLLED FUR AND MATERIAL DRESSING EQUIPMENT

Filed Feb. 3, 1951

Fig. 1.



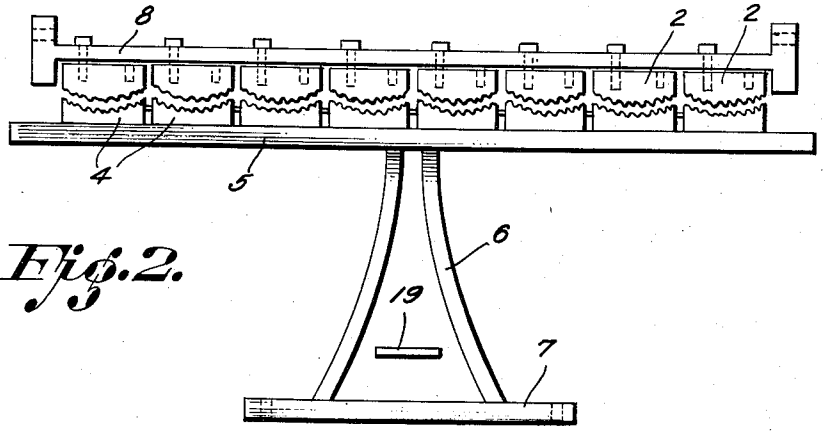


Fig. 2.

Fig. 3.

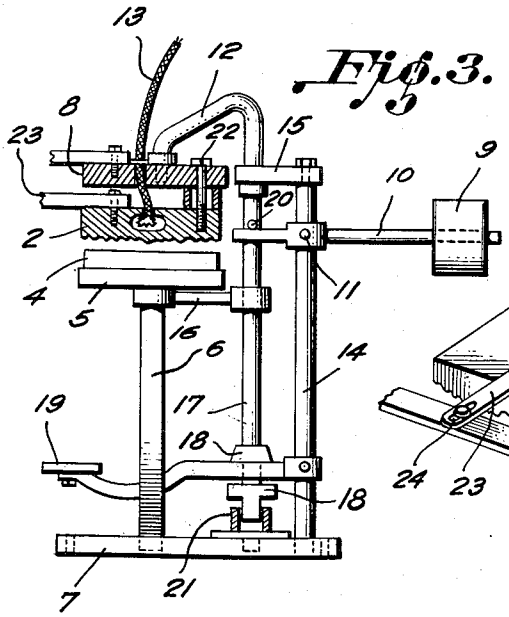
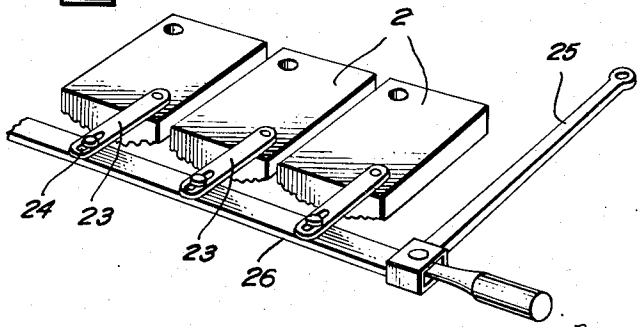


Fig. 4.



Inventor

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THERMOSTATIC CONTROLLED FUR AND MATERIAL DRESSING EQUIPMENT

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Application February 3, 1951, Serial No. 209,292

8 Claims. (Cl. 69—23)

This invention, related to improvements in fur dressing equipment, and has for its purpose a series of concave spaces in which flat surface furs, such as beaver, can be padded down into curved concave dips in a table or flat bottom slab which may be set, and bolted to the top of a flat surface table of a pressing machine.

Another purpose of this invention is to operate an individual fur impression decorating die, fastened to a common plate by suitable means. Thus by moving the common plate downward on the back side of a beaver like flat fur coat or piece the entire surface covered will be decorated with any irregular curves simply by inserting the desired plate or individual die to cover a predetermined space. A different design of die may be used for the adjacent space, if the same general type is not desired.

A still further purpose of this invention is to slightly turn the dies on a horizontal plane, after they have been pressed down on the fur surface; and after a brief setting time the plate or die are raised vertically by recoil movement of the pressing head.

Another purpose of this invention is to press, and decorate fur by use of conventional fur, or clothing pressing machine by attaching the bottom form and the top form to the appropriate parts, top and bottom pressing surfaces of the machine.

Another purpose of this invention is to provide electrical or other form of heat to increase the surface temperature of the die to a predetermined minimum or maximum and to control the temperature by the means of adjustable thermostats or valves. The temperature may also be controlled by use of separate heater coils controlled by cut off switches.

A further purpose of this invention is to cause the head or top part of the plate and die holder to move vertically downward, instead as in the existing machines with pressing heads which come downward on an angle; thus the die may move downward directly vertically to impress the decorative form on the fur and be moved vertically upward, on release of a foot peddle as disclosed in the specifications.

Another purpose of this invention is to cause the dies to be moved in a horizontal plane by the use of links and cams connected as illustrated in the drawings of the machine.

A further object of this invention is the arrangement of a series of dies of various sizes separated from each other enough that they may be rotated horizontally slightly if desired.

Another object of this invention is a series of connecting levers and wheels attached to said dies which may be rotated by hand individually or jointly at the same time.

Another object of this invention is one or more dies heated by steam or electricity as may be determined according to the source of power available.

Another object of this invention is one or more or a series of fur decorating dies electrically heated and thermostatically controlled arranged in parallel in rows separated from each other by a very small space which

will permit them to be rotated slightly in a horizontal plane.

In the drawing:

Fig. 1 shows an enlarged view of a single unit with a concaved form of die,

Fig. 2 shows the assembled bottom pad form and the plate from the front,

Fig. 3 is an end view of the complete machine, and

Fig. 4 is a detail view of the lever and links of the eccentric movement to shift the dies.

The single unit, shown in Fig. 1, has an upper section 1 which includes the fur decorating die 2 with its ribs 3. The concave bed or female die 4 for the die 2 is spaced from the die a sufficient distance to permit the fur, which is placed between the bed and the die, to be pressed evenly throughout the engaging face areas. The die 2 is shown provided with electric heating means, the temperature of which may be controlled by the thermostat T or the like. Alternately the die 2 may be heated by steam which could be supplied through the flexible hose 13, which is shown acting as a protective shield or conduit for the wires leading to the electric heating means shown in the drawings.

Fig. 2 shows an assembly of a plurality of the die elements 4 positioned on the table base 5 of a conventional machine used in regular fur or clothing drying and pressing operations while the upper die members 2 are carried by the frame 8 which may be provided with holes for use in attaching it to old style machine. The table base is mounted on a pedestal 6 rising from a floor base 7 which is conventionally provided with holes to receive bolts to anchor the machine to the floor. The female dies 4 may be permanently attached to the table base 5 or they may be removably secured to the table base permitting changes in these dies. Instead of the female dies, the table may be provided with a padded bottom form for the conventional pressing of furs and cloth in which event the upper dies 2 are not used or alternately the upper dies are not convex but rather flat with all of their ribs of equal length. These dies may be changed and other designs substituted having curved ribs or other forms for dressing flat fur, and "tightening" other fine furs.

Rising from the rear portion of the base 7 as shown in Fig. 3 is a column 14 which is provided with a forwardly projecting bracket 15 while the pedestal 6 has a rearwardly projecting bracket 16. Mounted in vertically aligned openings in the brackets 15 and 16 is an axially movable member 17, the upper end of which is bent forward and down at 12 to support the frame 8 carrying the male dies 2. Adjacent the lower end of the member 17 are a pair of collar members 18 which embrace the lever arm of the treadle 19 pivotally supported on the column 14. The member 17 may rest upon a spring loaded pin in the base 7 to absorb the shock of stepping on the treadle. The lower collar 18 is provided with an elongated transverse projection which is slideably received in a complementary shaped socket 21 to prevent rotation of the member 17. The weight of the member 17 and the dies 2 and their support is counterbalanced by the counterbalance weight 9 on the rear end of the lever 10 which is pivotally mounted on the column 14 at the pivot 11 and the lever bears against a pin 20 projecting from the vertically movable member 17; this will raise the upper dies 2 from the work when the treadle is released. The male dies 2 are pivotally mounted below the frame 8 on the studs 22 screwed into the rear of the dies. The studs rotate in the frame 8 while the dies are rotated by means of the bars 23 attached to the front of each male die.

The structure shown in Fig. 4 permits all the male dies 2 to be slightly rotated and the degree of rotation can be changed by changing the location of studs 22 and the at-

tachment point connecting the dies to bar **23**. A bracket arm **25** universally mounted on the pivot **11** of the counterweight lever **10** extends forward and carries at its forward end a transverse bar **26**. This bar is provided with a number of pins or studs each of which are received in a slot **24** at the front end of the bars **23**. The bar **26** may be provided with a suitable handle which the operator can grip to shift the dies.

In the operation of the machine the work which may be cloth or fur is positioned on the bed of female dies **4**, below the male dies **2**. The operator then steps upon the treadle **19** which causes the member **14** and the male dies to move downward, against the counterweight's force, into engagement with the work. If a straight pressing action is desired when the pattern of the dies has been set, the treadle is released and the counterweight raises the male dies clear of the work. If, however, it is desired to place a curl in the fur, the pressure on the treadle is released slightly after the dies have been brought into engagement with the work and the operator takes the handle on the transverse bar **26** and shifts the bar sideways sufficient to rotate all the male dies **2** through an angle covering not more than one-fourth of an inch or as may be predetermined according to the type of work to be done and the kind of material. The pressure on the treadle, and thereby of the dies **2** on the work, is restored until the desired design is set in the work when the treadle is released and the male dies elevated to their upper position without shifting the dies to their normal lateral position.

Should it be desired to make a different design outline on the fur than the one that is being used, the male and female dies may be removed from the machine and replaced with other dies to give the desired pattern.

I am aware that some of the various parts of my inventions are not new, but I believe the arrangement of these parts to construct mechanical fur decorating machine, which will enable a person to press, and decorate flat fur or cloth at the same time and with any particular design desired, constitutes a new invention because heretofore decorating of flat fur has been done solely by hand operated individual dies pushed down by hand of the operator on to the top of the fur.

My construction is subject to improvement and changes and I do not desire to limit the use of the invention exclusively to the decorating of fur, cloth or other material and set forth the following claims.

I claim:

1. In a device of the class described: a plurality of pivoted fur dressing dies; mechanical linkage means interconnecting said dies; manually operable means connected to said linkage means for moving said dies about their pivots and means for applying pressure to said dies.

2. A device according to claim 1 further comprising thermostatically controlled means for maintaining said dies at a predetermined temperature.

3. In fur dressing equipment according to claim 2, a lever movable by pressure, said lever being connected to dies which may be covered to revolve proportionally to movement of said lever.

4. In a device according to claim 1, said dies being adapted to be heated by steam.

5. In a device according to claim 4, said dies having steam conducting means adapted to be adjustably controlled by valve means.

6. In a device according to claim 1, said dies adapted to be heated by electric heating means.

7. In a device according to claim 6, said electric heating means being adapted to be controlled by adjustable thermostatic means.

8. In fur dressing equipment, a lever connected to a plurality of parallel links attached to revolvable dies to cause the said dies to revolve laterally on the top of fur and to cause said fur to be dressed with said dies when said lever is moved by pressure.

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