Sept. 11, 1945. B. O. WESTMAN 2,384,777

MACHINE FOR FINISHING THE RUNNER FACE OF SKIS

Filed July 26, 1943

Fig. 1.

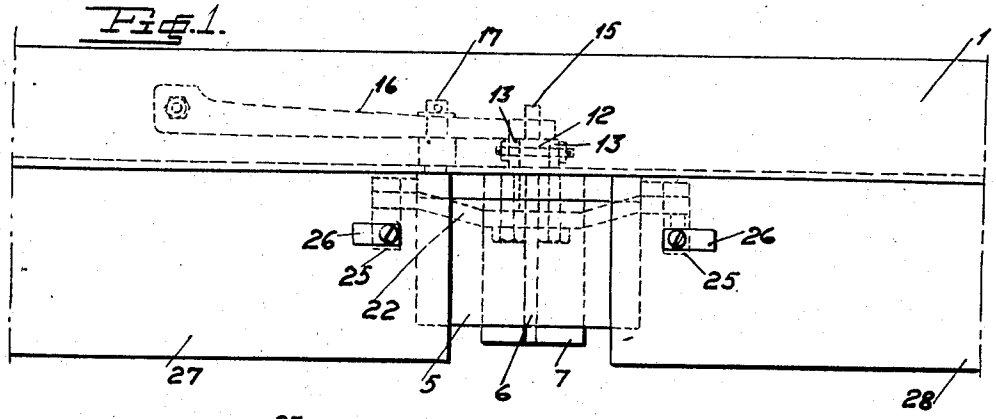


Fig. 2.

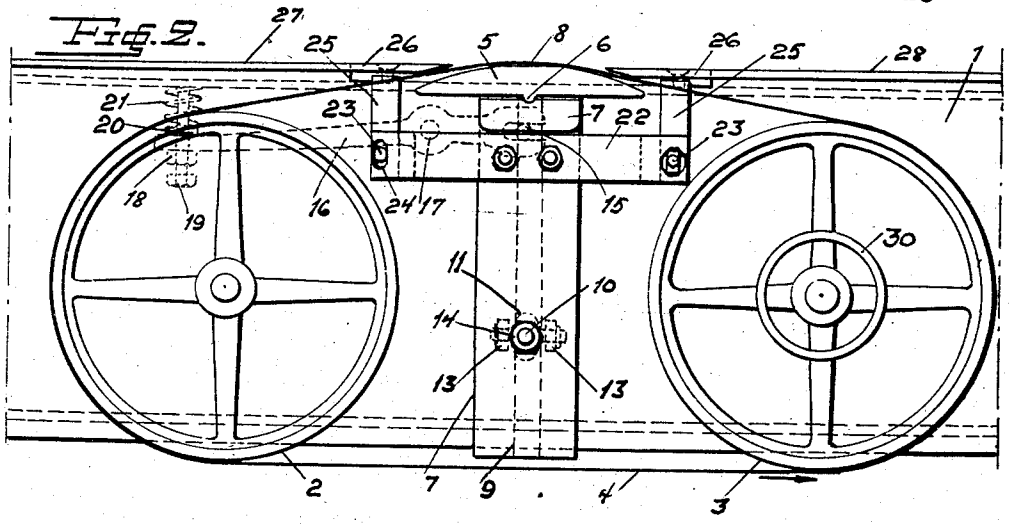
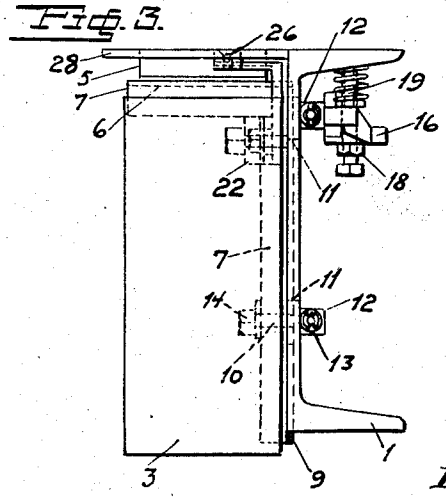


Fig. 3.



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MACHINE FOR FINISHING THE RUNNER FACE OF SKIS

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In Sweden December 18, 1941

5 Claims. (Cl. 51—135)

My invention is for improvements in and relating to sand papering machines, especially for finishing the runner face of skis, of the type having a moving endless dressing band of emery cloth or the like.

An embodiment of the invention will be described in the following with reference to the accompanying drawing. In the drawing Fig. 1 is a top view, Fig. 2 is a side view and Fig. 3 an end view of the machine.

In the drawing the reference character 1 denotes a beam forming the frame of the machine. Two drums 2 and 3 are rotatably mounted in the frame and carry an endless dressing band 4. The drum 3 is by means of a pulley 30 driven from a motor not shown. The dressing band passes over a dressing table 5 which by means of a transverse ridge 6 rests in a groove in a support 7 so as to be capable of a tilting movement. The upper side of the dressing table is rounded with the exception of the central part 8 which is plane and in the normal position of the dressing table, as shown in Fig. 2, is parallel with the plane of the feed table described in the following.

The support 7 is angle-shaped and is slidably mounted in the frame and for this purpose provided with a rib 9 which fits into a corresponding groove in the frame. Bolts 10, only one of which is shown in the drawing, are screwed into the support 7 and pass through elongated holes 11 in the web of the beam 1. To the bolts 10 are connected squares 12 on which are mounted small rollers 13 which contact with the inside of the web of the beam. When the bolts have been adjusted so as to allow of a smooth and steady sliding movement of the support 7 they are locked by means of nuts 14 on the other side of the support. At the upper part of the support is provided a lug 15 with which engages one end of a two-armed lever 16 swingably mounted at 17 in the frame. Into the end of the other arm of the lever 16 is screwed a set screw 19 provided with a lock nut 18, and by means of this screw the lower position of the support 7 and thus of the dressing table 5 may be adjusted and fixed. On the screw 19 is provided a spring 21 one end of which engages with the upper flange of the beam and the other end of which engages with a nut 20 on the set screw 19. The object of this device is to provide a certain degree of flexibility of the dressing table 5 to be used when finishing skis the middle part of which is bent out from the general plane of the ski so as to provide a certain amount of springiness for taking up the weight of the skier.

To the support 7 is secured a yoke 22 and to this yoke are secured angle plates 25. The plates 25 are secured to the yoke by means of screw connectors 23 and elongated holes 24 in the yoke so as to be adjustable. To the upper ends of the plates 25 are secured actuating members in the form of squares 26 which, as the spring 21, are to be used for curved skis and then are adjusted to slightly project above the feed table (one to three millimeters), the latter being formed by plates 27, 28 secured to the frame 1 and provided with openings for the squares 26.

The operation of the machine is as follows, it being assumed at first that it will be used for curved skis.

The spring 21 is tensioned by means of the nut 20 so that the dressing table 5 projects above the plane of the feed table, the exact amount depending on the curvature of the ski. The set screw 19 will then no longer engage with the upper flange of the beam and the dressing table is thus free to move downwards against the load of the spring 21 until the set screw 19 engages with the upper flange of the beam 1 and limits the downward movement, when the dressing table is flush with the feed table.

Also the squares or actuators 26 are adjusted so that they project above the plane of the feed table, the amount depending on the curvature of the ski.

The dressing band 4 is assumed to move in the direction indicated by the arrow in Fig. 2 and the ski is assumed to be fed to the machine in the direction from left to right in the same figure, the ski entering the machine with the hind end foremost. When the machine is started the dressing table 5 is tilted over to the left in Fig. 2. When the ski engages with the dressing band and the finishing operation begins the dressing table is tilted back to its normal position. This movement protects the dressing band as this otherwise is liable to break, particularly if the ski is roughly brought into contact with the dressing band. The dressing table is also depressed by reason of the ski depressing the left actuator 26 which further serves to protect the dressing band and prevent it from breaking. As the ski passes along the feed table the actuators 26 and also the dressing table rise so that the dressing band will always be in contact with the runner face of the ski in spite of the curvature of the latter.

When the machine is to be used for finishing skis having plane, not curved runner faces the

nut 20 is screwed down so that the set screw 19 engages with the upper flange of the beam and the dressing table is brought back to a position in which it is flush with the feed table. The actuators 26 are also similarly adjusted by lowering the plates 25.

What I claim is:

1. Sand papering machine comprising in combination a frame having a feed table, a dressing table associated with the feed table, fulcrumed in the frame for tilting movement and having a rounded upper face substantially flush with the upper face of the feed table, means for yieldingly supporting the dressing table, means for fixing the dressing table in a non-yielding position, drums rotatably mounted in the frame and an endless dressing band mounted on and passing over the drums and the dressing table.

2. Sand papering machine comprising in combination a frame having a feed table, a support mounted in the frame for sliding movement therein in a direction substantially at right angles to the plane of the feed table, a dressing table associated with the feed table, mounted on the support for tilting movement and having a rounded upper face substantially flush with the upper face of the feed table, a lever swingably mounted in the frame with one end fulcrumed to the support, means for fixing the lever in a position relatively to the frame which prevents yielding of the dressing table, a spring for setting the lever in a position permitting yielding movement of the dressing table against the load of the spring, drums rotatably mounted in the frame, and an endless dressing band mounted on and passing over the drums and the dressing table.

3. Sand papering machine comprising in combination a frame having a feed table, a support mounted in the frame for sliding movement therein in a direction substantially at right angles to the plane of the feed table and having a groove at the end adjacent the feed table, a dressing table associated with the feed table, mounted on the support and having a ridge fitting into the groove of the support for permitting tilting movement of the dressing table, a rounded upper face on the dressing table substantially flush with the upper face of the feed table, a lever swingably mounted in the frame with one end fulcrumed to the support, means for fixing the lever in a position relatively to the frame which prevents yielding of the dressing table, a spring for setting the lever in a position permitting yielding movement of the dressing table against the load of the spring, actuating members projecting through the feed table on both sides of the dressing table and adjustably secured to the support, drums rotatably mounted in the frame, and an endless dressing band mounted on and passing over the drums and the dressing table.

4. Sand papering machine comprising in combination a frame having a feed table, a support mounted in the frame for sliding movement therein in a direction substantially at right angles to the plane of the feed table, elastic means for urging the support in the direction towards the feed table, a dressing table associated with the feed table, fulcrumed on the support for tilting movement thereon and having a rounded upper face substantially flush with the upper face of the feed table, an actuating member projecting through the feed table at least on one side of the dressing table, secured to the support and operative when depressed to depress the dressing table, drums rotatably mounted in the frame, and an endless dressing band mounted on and passing over the drums and the dressing table.

5. Sand papering machine comprising in combination a frame having a feed table, a support mounted in the frame for sliding movement therein in a direction substantially at right angles to the plane of the feed table and having a groove at the end adjacent the feed table, a dressing table associated with the feed table, mounted on the support and having a ridge fitting into the groove of the support for permitting tilting movement of the dressing table, a rounded upper face on the dressing table substantially flush with the upper face of the feed table, drums rotatably mounted in the frame and an endless dressing band mounted on and passing over the drums and the dressing table.

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