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SKI WAXING MACHINE

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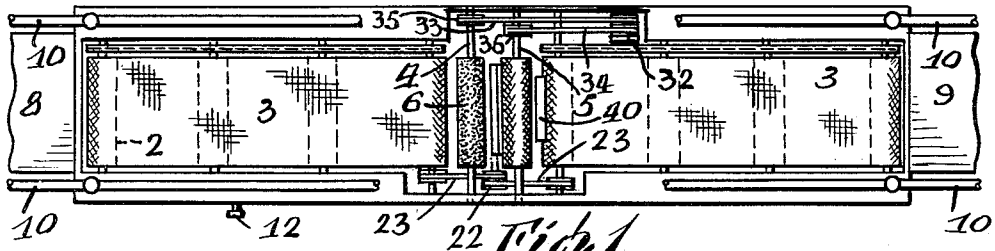


Fig. 1

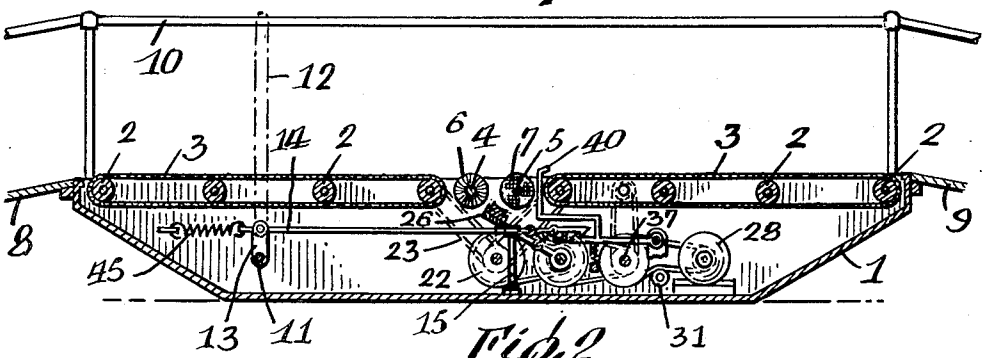


Fig. 2

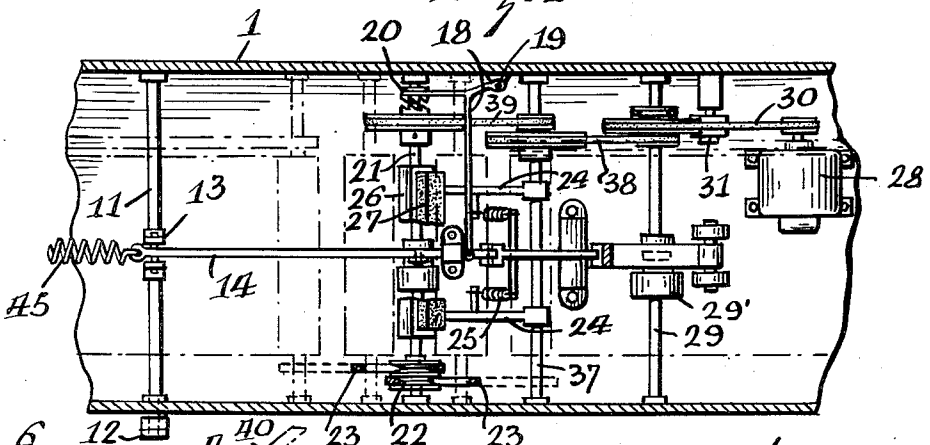


Fig. 3

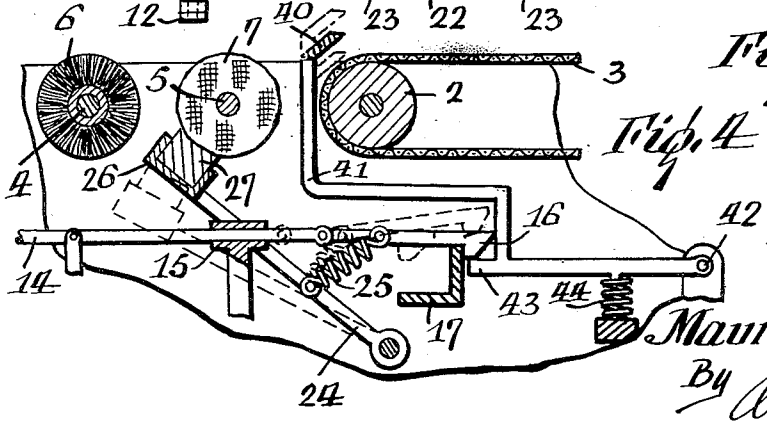


Fig. 4

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SKI WAXING MACHINE

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6 Claims. (Cl. 91—27)

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The present invention pertains to a novel machine for waxing the bottoms of skis.

The principal object of the invention is to provide such a device that operates on the skis while they are being worn by the user. The machine may be mounted conveniently near the skiing area and is so constructed as to carry a succession of skiers over the operating elements of the machine.

The machine includes a pair of alined conveyor belts between which are arranged a rotary brush and a rotary waxer. In this connection, a further object of the invention is to provide means operable by the user for applying wax to the waxer and at the same time engaging a clutch for driving the conveyor belts.

Still another object is to provide means, operable automatically by the weight of the user, for removing the wax applier and disengaging the clutch when the skis have passed over the waxer. This mechanism includes a trip and a series of springs that withdraw the initial operating means to an idle or disengaging position when the skis pass from the waxer to the weight-operated device.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a plan view of the device;

Figure 2 is a longitudinal section;

Figure 3 is a detail plan section; and

Figure 4 is a detail longitudinal section.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The machine includes a hollow base 1 across the top of which are journalled two series of transverse rollers 2. Around each series of rollers is trained an endless belt 3, the belts being spaced apart at the center of the base as shown in Figure 2. Between the belts are journalled shafts 4 and 5 carrying respectively a brush 6 and a polisher 7 operated in a manner presently to be described.

The skier mounts the device, wearing his skis, from the left hand end over a ramp 8. A similar ramp 9 is provided at the other end for exit. He may hold the hand rail 10 erected on the base 1.

A shaft 11 mounted across the base near the entrance end carries an upstanding lever 12 within reach of the user. The shaft carries a pair of central lugs 13 between which is pivoted a forwardly extending rod 14 passing through a bearing 15 (Figure 4). To the forward end of the

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rod is pivoted a hook 16 adapted to engage on a transverse frame bar 17.

The rod 14 is also attached to a lever 18 pivoted to a side of the base 1 at 19 and operating a clutch 20 on a transverse shaft 21. The shaft 21 carries a double pulley 22 with endless belts 23 connected to rollers of the respective belts 3.

An arm 24 pivotally mounted in the base 1 is jointed to the hook 16 by a coil spring 25. The free end of the arm carries a box 26 with a block of wax 27 that engages and loads the polisher 7 when the hook 16 is advanced.

In the base 1 is mounted an electric motor 28 joined to a cross shaft 29 having a fly wheel 29' by a belt 30 tensioned by an idler 31. A double pulley 32 on the shaft 29 is belted at 33 and 34 to pulleys 35 and 36 on the shafts 4 and 5 respectively, as shown in Figure 1.

Another transverse shaft 37 in the base 1 is belted at 38 to the shaft 29 and again at 39 to the driving element of the clutch 20. Thus, the forward movement of the lever 12 engages the clutch through lever 18 and imparts motion to the belts 3 through the shaft 21 and drive belts 23.

After the user has operated the lever 12, he is carried forward on the first belt 3. The bottoms of the skis are cleaned by the brush 6 and then waxed by the waxer 7. The latter may consist of cloth disks or other material adapted to apply wax from the block 27 to the skis.

Forward of the waxer 7 is a cross bar 40 in the path of the skier and carried by an angular arm 41 pivoted at 42 and having a kick piece 43 beneath the hook 16. The bar 40 is depressed by the weight of the skier, and when he has crossed it, a spring 44 throws it upward and causes the piece 43 to disengage the hook 16 from the frame bar 17. At the same time, another coil spring 45 pulling on the rear end of the rod 14 retracts the rod and disengages the clutch 20 to disconnect the drive from the belts 3. The skier pulls himself by the rail 10 along the forward belt 3, or is carried on this belt when followed by another user on the rear belt 3, and finally descends the ramp 9.

Although a specific embodiment of the invention has been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claims.

What I claim as my invention is:

1. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless

belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, a wax container movably supported by said base, a lever connected to said container for bringing the latter into engagement with said waxer, and means for driving said belts, brush and waxer.

2. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, a wax container movably supported by said base, a slidable rod, actuating linkage between said rod and container for moving said container into engagement with said waxer, a lever for shifting said rod, a hook pivoted on said rod, a frame member engageable by said hook, a trip lever forward of and adjacent to the top of said waxer, said trip lever engaging beneath said hook and adapted to disengage said hook from said frame member, a spring tending to lift said trip lever, and means for driving said belts, brush and waxer.

3. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, a wax container movably supported by said base, a lever connected to said container for bringing the latter into engagement with said waxer, means for driving said belts, a clutch interposed in said means, and means for driving said brush and waxer.

4. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, a wax container movably supported by said base, a slidable rod, actuating linkage between said rod and container for moving said container into engagement with said waxer, a lever for shifting said rod, a hook pivoted on said rod, a frame member engageable by said hook, a trip lever

forward of and adjacent to the top of said waxer, said trip lever engaging beneath said hook and adapted to disengage said hook from said frame member, a spring tending to lift said trip lever, means for driving said belts, a clutch interposed in said means and operatively connected to said first lever, and means for driving said brush and waxer.

5. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, an arm pivotally mounted on said base, a wax container carried by said arm, means for bringing said container against said waxer, and means for driving said belts, brush and waxer.

6. A ski waxing machine comprising a base, a pair of longitudinally alined and spaced endless belts carried thereby, a brush and a waxer rotatably mounted between said belts on axes transverse of said belts and spaced apart, an arm pivotally mounted on said base, a wax container carried by said arm, a slidable rod connected to said arm and adapted to bring said container against said waxer, means for sliding said rod, a hook pivoted on said rod, a frame member engageable by said hook, a trip lever forward of and adjacent to the top of said waxer, said trip lever engaging beneath said hook and adapted to disengage said hook from said frame member, a spring tending to lift said trip lever, and means for driving said belts, brush and waxer.

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