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SKI OR SLED RUNNER

Filed March 18, 1957

Fig. 1.

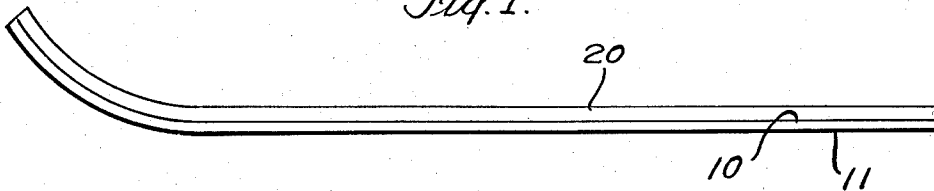


Fig. 2.

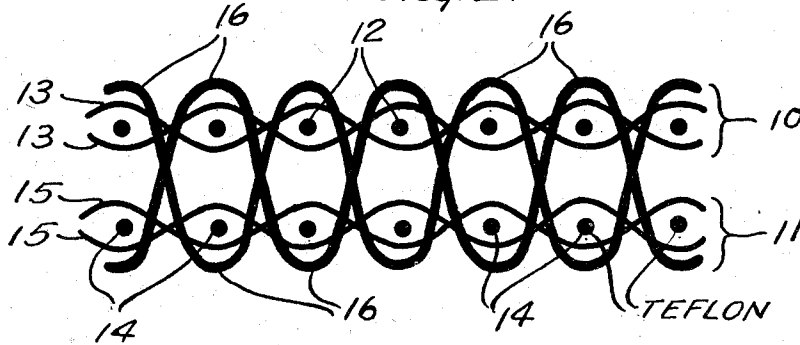
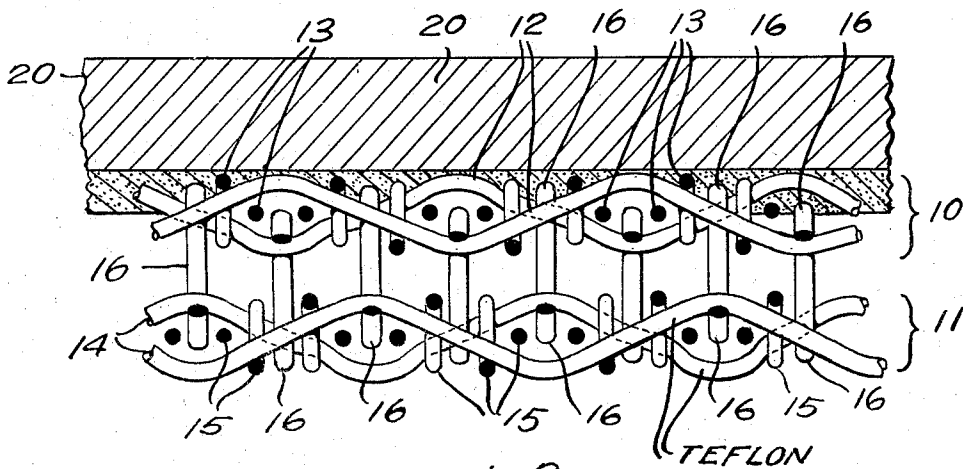


Fig. 3.

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2,908,506

SKI OR SLED RUNNER

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3 Claims. (Cl. 280—11.13)

This invention relates to skis for airplanes and other mobile equipment for arctic use, sled runners or the like and has for an object to provide a runner having novel and improved characteristics.

Another object is to provide a runner which will not become frozen to the snow or ice while standing;

A more specific object is to provide a liner for skis or sled runners having the above characteristics.

The present invention provides for embodying Teflon in the runner surface. Teflon is the trade name for tetrafluoroethylene and has a very low coefficient of friction and will not adhere to other substances. For this reason it is particularly adapted for use as a bearing surface for snow runners as it will not adhere to or freeze to snow or ice. However because of this characteristic of Teflon it is difficult to affix to other materials as it will not adhere thereto.

A more specific object of the present invention is to provide means for fabricating Teflon yarn in a form which can be affixed readily to surfaces.

The invention provides, in general, for fabricating the Teflon yarn into a woven fabric which can be impregnated with adhesive for securing the same to a surface.

The nature of the invention will be better understood by referring to the following description, taken in connection with the accompanying drawing in which a specific embodiment has been set forth for purposes of illustration.

In the drawing:

Fig. 1 is an elevation of a ski for mobile equipment showing the liner on the under surface thereof;

Fig. 2 is a transverse section through the fabric liner, greatly expanded to show the weave; and

Fig. 3 is a longitudinal section, similar to Fig. 2 but showing the fabric and ski.

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Referring to the drawing more in detail the fabric is shown as embodying an upper ply 10 and a lower ply 11. The upper ply 10 is comprised of warp yarns 12 and chain yarns 13. The lower ply 11 is composed of warp yarns 14 and chain yarns 15. The plies 10 and 11 are bound together by binder yarns 16.

The warp yarns 14 of the lower ply 11 are composed of Teflon. The other yarns 12, 13, 15 and 16 may be composed of cotton, nylon, Dacron or other material which is adapted to be impregnated with an adhesive or bonding resin.

The impregnated fabric is secured by the impregnant to the undersurface of a runner 20 to form the running surface thereof.

In this construction the Teflon yarn 14 is exposed on the underside to form the outer contacting surface. The binder yarns 16 and the impregnant provide a tough liner which is resistant to tearing and abrasion.

What is claimed is:

1. A snow runner comprising a rigid base having an undersurface shaped to form a runner, and a liner secured to said surface, said liner comprising a woven fabric having an upper bonding ply and a lower running surface ply, each composed of warp yarns and chain yarns, and binder yarns binding said plies together, at least the warp yarns of the running surface ply being composed of Teflon and the other yarns in the two plies of said fabric being of a material capable of being bonded by an adhesive material and an adhesive in said fabric bonding said bondable materials of said fabric together and also bonding said fabric to said undersurface of said rigid base, with the Teflon yarns of said running surface ply being exposed on the free surface of said fabric to constitute the running surface.
2. A runner as set forth in claim 1 in which the fabric is composed of Teflon and cotton yarns.
3. A runner as set forth in claim 1 in which the fabric is impregnated and bonded to the base with a phenolic resin.

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