

UNITED STATES PATENT OFFICE.

EUGEN DOWALD, OF ELBERFELD, GERMANY.

SURFACE FOR SKATING-RINKS.

SPECIFICATION forming part of Letters Patent No. 494,468, dated March 28, 1893.

Application filed November 25, 1892. Serial No. 453,133. (No model.)

To all whom it may concern:

Be it known that I, EUGEN DOWALD, merchant, a subject of the Emperor of Germany, and a resident of 19 Blumenstrasse, Elberfeld, in the Empire of Germany, have invented certain new and useful Improvements in and Relating to the Production of Surfaces for Skating-Rinks, of which the following is a specification.

My invention relates to the production of surfaces for skating rinks.

Skating has heretofore been confined to countries where in winter the atmospheric temperature is so low as to cause the production of ice adapted for skating purposes. However for enabling the sport to be practiced also in other seasons and in other countries endeavors have been made to replace ordinary skates by roller skates used for skating on rinks of asphaltum. But as the use of roller skates affords far less pleasure than that of ordinary skates this substitute has not met with abiding success. For this reason I retain the ordinary skates and produce in lieu of a surface of ice a surface on which such skates may be used in the well-known manner.

To form a skating surface which as far as practicable is equal to that of ice in respect of smoothness and other desirable properties I make use of paper or pasteboard tablets or plates of about fifteen millimeters thick, and also thinner or thicker according to requirements. These tablets or plates are immersed in very hot linseed oil varnish with which glue is mixed. The tablets or plates must remain in the varnish until they are perfectly permeated, the length of time depending upon their thickness. After the permeation the tablets or plates are immediately subjected to a powerful pressure, preferably by means of hydraulic presses, to squeeze out the excess of oil and to give the tablets or plates greater strength. Then the tablets or plates are dried, immersed in hot paraffine and again subjected to a powerful pressure for the purpose of pre-

venting them from taking up any more moisture and of making them stronger. To the side of these tablets or plates which is turned upward is then applied parchment of about one millimeter in thickness by rolling. Such tablets or plates are then coated below and on the sides with gypsum and tar. This coating with gypsum or tar is effected with the object of rendering the tablets or plates absolutely resistant against outer influences. They are then carefully juxtaposed and united by cement for the formation of an even surface. The finished surface of the rink is coated with a material consisting of one part of glycerine, two parts of wax and three parts of oil, this material being rubbed in as well as possible. This material, which is applied in a cold state to the surface of the rink and must be renewed if necessary, is prepared by melting the aforesaid parts of glycerine, wax and olive oil together and allowing the same to cool. On the rink thus produced skates must be used with blades from which the sharp edges of the under surface are removed and the under surface is ground smooth, in order that the surface of the rink may not be seriously injured by the skating.

What I claim is—

1. A surface for skating rinks adapted for ordinary skates, which consists of paper or pasteboard tablets or plates permeated with varnish and paraffine, and coated with glycerine, wax and oil, substantially as and for the purposes herein set forth.

2. A material for coating surfaces of skating rinks, consisting of glycerine, wax and oil, substantially as and for the purposes herein specified.

In witness whereof I have hereunto set my hand this 10th day of November, 1892.

EUGEN DOWALD.

Witnesses:

RUDOLPH FRICKE,
WM. ESSENWEIN.