(No Model.)

J. R. FRANCE.

ROLLER SKATE WHEEL.

No. 328,476. Patented Oct. 20, 1885.

Fig. 1.

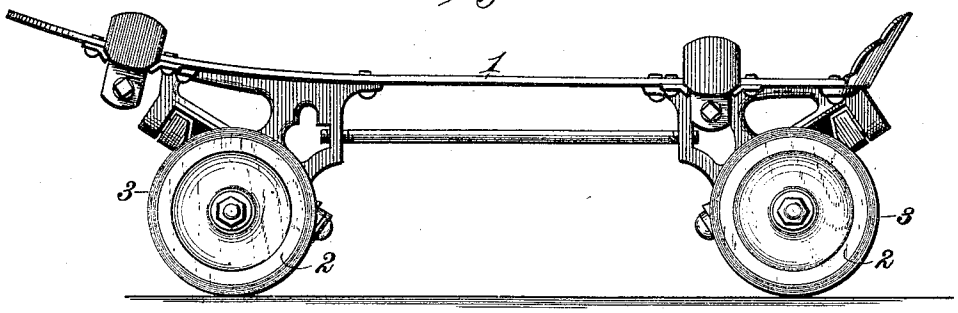


Fig. 2.

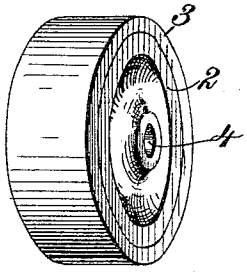


Fig. 3.

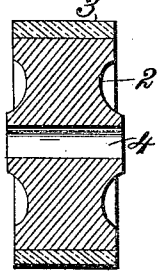


Fig. 4.

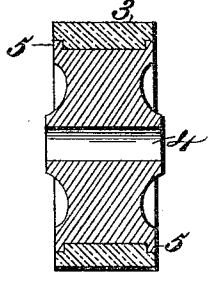


Fig. 5.

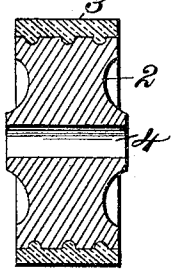
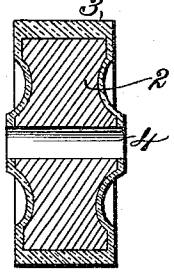


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOSEPH R. FRANCE, OF NEWARK, NEW JERSEY.

ROLLER-SKATE WHEEL.

SPECIFICATION forming part of Letters Patent No. 328,476, dated October 20, 1885.

Application filed November 6, 1884. Serial No. 147,285. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. FRANCE, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented new and useful Improvements in Rolling Supports for Parlor-Skates, of which the following is a specification.

This invention relates to improvements in what are known as "parlor-skates"—that is, a skate mounted on rollers or wheels adapted to traverse a floor, pavement, or other surface to imitate skating on ice.

The object of my invention is to improve the rolling supports of such skates, whereby they are rendered more durable, and are furnished with a smoother bearing-surface than ordinary wooden or metallic rollers or wheels, and whereby an unyielding or inelastic surface is provided, which will not be affected by moisture, nor be liable to chip off or be easily marred or injured when subjected to the uses for which roller-skates are designed.

My invention consists in a rolling support for roller-skates, constructed as hereinafter described and claimed, reference being made to the accompanying drawings illustrating my invention, in which—

Figure 1 is a side elevation of a parlor-skate having its rolling supports constructed in accordance with my invention; Fig. 2, a detached perspective view of a skate roller or wheel made in accordance with my invention; Fig. 3, a central sectional view of the same; Fig. 4, a central sectional view of a roller or wheel, showing a modification of the invention; Fig. 5, a similar view showing another modification, and Fig. 6 a similar view of another modification.

In order to enable others skilled in the art to make and use my invention, I will now describe the same in detail, reference being made to the drawings, where the number 1 indicates the usual foot-stock of a parlor-skate, which will be provided with suitable devices for connecting it with the foot, such, for instance, as straps or adjustable clamps. The rolling skate-supports, in the form of disk-wheels, are journaled in suitable brackets or wheel-carrying frames, as ordinarily practiced in this class of skates.

The wheel is composed of a body, 2, having a tire or rim, 3, of plastic material, having a pyroxiline base. This material while in a plastic condition, is applied around the periphery of the disk-body 2 and permitted to set or harden, and this may be efficiently accomplished by introducing the plastic pyroxiline compound around the disk-body within suitable dies, and then by pressure and heat molding the composition about said body to constitute a tire or rim, and a bearing-surface which is tough, durable, smooth, and not affected by moisture, and which is not liable to wear unevenly or chip or break, as do rollers of ordinary construction.

While this method of manufacturing the rolling skate-support is practical and satisfactory, I do not confine myself thereto, as various other methods of manufacture will suggest themselves to those skilled in the art.

The disk-body of the wheel is preferably of wood, but other material may be used—such as metal—and the center of the disk is provided with a perforation, 4, to receive the axle or spindle on which the wheel revolves. The thickness of the plastic tire or rim may vary according to the conditions required or as the judgment of the manufacturer dictates; but a tire or rim of about one-quarter ($\frac{1}{4}$) of an inch in thickness will give good results.

The tire or rim of plastic composition may be applied to a disk having a perfectly flat and smooth periphery, as in Fig. 3; but, preferably, the construction is such that the composition will constitute a tire that interlocks with the periphery of the disk-body. This interlock may be effected in any suitable manner. For example, as shown in Fig. 4, where the periphery of the disk-body is provided with an annular groove into which the composition enters during the process of manufacture, the groove forming annular flanges 5, which effectually prevent lateral displacement of the tire or rim. As shown in Fig. 5, the periphery of the disk-body may be furnished with a series of annular grooves to receive the composition.

In Fig. 6 I have shown the disk-body entirely covered with the pyroxiline compound, whereby all parts of the body are protected against moisture and other atmospheric influences, and a neat, durable, and handsome skate-roller provided.

Ordinary skate rollers or wheels of wood soon wear uneven on their peripheries, and

also chip or break, and, besides, are affected injuriously by moisture, so that they break or split; but a wooden skate-wheel furnished with a rim or tire of plastic composition composed of pyroxiline or its compounds provides a bearing-surface which is exceedingly hard and unyielding or inelastic, is very smooth, and is not liable to chip off or break, while it is not injuriously affected by moisture. A metallic skate-wheel is objectionable owing to the noise it creates, and because its periphery by becoming rusty unfits it for use on well-preserved skating-floors; but a metal disk having a tire of the character hereinbefore described is not open to such objections.

A tire or rim of plastic material having a pyroxiline base provides a rolling support for skates which is superior and more desirable in many respects to wooden wheels with rubber tires. The rubber tire is soft, and hence produces such undue friction that it is difficult, if not impossible, to rapidly traverse a floor or other surface; but the tire or rim of plastic material provides a hard and unyielding or inelastic bearing-surface, which can be highly polished and smoothed, thereby enabling great speed to be attained with comparatively little effort.

In the manufacture of the rolling supports, the disk-body constitutes a core about which the tire or rim or the covering is cast in the dies or molds.

Instead of using wood or metal for the core of the disk-body, I may construct it from a plastic composition and then apply the tire or rim in the manner described. I may also construct the rolling support with spokes joined to a hub and to a felly, the tire or rim being cast about the felly.

I am aware that skate-rollers have been made entirely of vulcanized india-rubber, and such I disclaim.

Having thus described my invention, what I claim is—

1. A rolling support for skates, consisting of a body or core, 2, and a separate tire of plastic, material having a pyroxiline base and molded on the body or core, substantially as described.

2. A rolling support for skates, consisting of a body or core having an annularly-grooved periphery and a bearing-surface of plastic material, having a pyroxiline base, forming an unyielding or inelastic tire to the body or core, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH R. FRANCE.

Witnesses:
CHRISTIAN A. HOPMANN,
WILLIAM A. WARD.