This invention relates to the class of skates and pertains particularly to improvements in the construction of hubs for rink skate wheels.

The present invention has for its primary object to provide an improved hub for use in connection with turned wood wheels of the character employed on rink skates, which may be more quickly made and more quickly and cheaply assembled in the wheel than is possible with the present types of machined or racing hubs, particularly those hubs which are formed in one piece, the present hub being designed for use in duplicate upon each wheel.

Another object of the invention is to provide an improved wood wheel hub for rink skates which is formed in a novel manner and which is adapted to be pressed into position in the wooden wheel shell where it will be firmly held by means of integral lugs which are forced to bite into the wood of the shell.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a view in perspective of a wood wheel for a rink skate showing a section of the hub piece in operative position therein.

Fig. 2 is a view in a plane of the inner side of the hub piece.

Fig. 3 is a sectional view on the line 3—3 of Fig. 2.

Fig. 4 is a view in elevation of the hub piece.

Fig. 5 is a section taken on the line 5—5 of Fig. 1.

Fig. 6 is a view in end elevation of a skate wheel, before the application of the hub units.

Referring now more particularly to the drawing the numeral 1 generally designates a wheel of the type used in rink skates and which is of turned hard wood. Such wheels have as shown in the present illustrations which is indicated by the numeral 2. Through the center of the wheel an axle opening 3 is formed, and in each of the opposite recesses 2 of the wheel a hub unit is secured, such a unit being indicated generally by the numeral 4. Two of these units constitute a complete hub, but for convenience in describing the invention one unit only will be referred to.

The units forming the two-part hubs each comprises, in accordance with the present invention, a rectangular body 5 which is provided with a central opening 6 and with an anti-friction ball race 7 formed in one face concentric with the opening 6 as illustrated in Fig. 3. The outer side of the unit is rectangular in outline and has each of the four corners cut square across, as indicated at 8.

The unit body is initially punched from a suitable strip of stock, in the form of a plain rectangular nut blank which is left untapped. On the back of the blank the same is turned to form the circular body portion 9 into which the race 7 extends from the opposite side, and in turning this circular body portion 9 there are left at the corners of the blank or unit the lugs 10. As shown in Fig. 4, these lugs are cut back or sharpened so as to extend from the front or square face of the hub unit a distance equal to substantially half the thickness of the unit.

The diameter of the opening 6 is substantially the same as the diameter of the opening 3 through the body 1, and the diameter of the recess 2 is such that when the hub unit is placed therein the square corners 8 will bear firmly against the wall of the recess 2 and the unit is then pressed firmly inwardly, the bottom of the recess 2 being provided with a suitable countersunk recess to receive the circular portion 9 and the lugs being pressed into the solid wood at the bottom of the recess into which the unit is forced. Since a similar unit is placed in a similar manner in a recess 2 at the opposite side of the wheel, it will be seen that the two units go to make up a complete hub having the two race-ways for receiving antifriction balls at the two sides of the wheel, the balls surrounding the wheel supporting axle, not shown, in the usual manner.

By forming or turning the blank in the manner described, it will be seen that the two units 10 are provided at opposite sides with sharp corners or edges 11 which facilitate their insertion into the solid wood of the wheel body when the unit is pressed into position in the manner described. It will also be apparent that by stamping the units out as nut blanks they may be easily and quickly formed and by providing two units to each wheel to form the complete hub, they can be easily and quickly pressed into position from opposite sides of the wheel body, whereas this
quick application of the old type single piece hub is not possible. It is known that two-piece hubs have previously been made from stamped material, but the present invention distinguishes from these former two-piece hubs in that it is machined so that the anti-friction balls used in association therewith will operate smoothly and thus adapt the hubs to use in racing skates. The previously formed stamped two-piece hubs are not adaptable to racing skates because of the fact that they are stamped, and have no machined finish and therefore the races are uneven and do not lend themselves to use in connection with speed skates.

In the present hub unit the formation of the corners 8 in the manner illustrated is of advantage in that when the skate wheel has worn down the hub corners will not cut through and mar the floor surface of the skating rink as they would if the sharp corners were left in the form in which they occur through the stamping of the piece.

What is claimed, is:

1. A two-piece hub unit of the character described, comprising a body presenting on one side a contour of polygonal outline, the opposite face of the body being of circular formation for introduction into a circular recess in a wood wheel body, and lugs formed integrally with the body and projecting from the side of polygonal contour parallel and in spaced relation with the portion of circular outline, said lugs being adapted for penetration into the wood wheel body, the said first mentioned body having a central aperture therethrough and a ball race formed in the first mentioned side thereof.

2. In a skate wheel of solid material having a central opening and having each face recessed to form two concentric shoulders encircling said opening, a hub comprising two units each disposed in a recess and each comprising an integral flat body having an exteriorly circular portion resting at one side against one shoulder, the body having a central opening concentric with the wheel opening, a rectangular head portion forming the other side of the body and having corners projecting beyond the exterior outline of said circular portion and resting against the other shoulder, the said other side of the body having a ball race cut therein concentric with the opening, and a lug extending from each of said corners across and in spaced relation with said circular portion and penetrating into the second mentioned shoulder.

3. A hub unit, consisting of two pieces each comprising a flat body portion of polygonal contour having a ball race cut into one face thereof, a second body portion projecting from the opposite face of the first portion and having an overall width which is less than the width of the flat first mentioned portion, the second portion being centrally positioned relative to the first portion, the second portion having a central passage therethrough which opens through the center of the ball race, and lugs projecting from the said opposite face of the first portion in spaced relation with the second portion and parallel with the axial center of said passage.

4. In a skate wheel having a body of solid material having an axle passage and having each face recessed to form a shoulder concentric with the passage, a hub comprising two units each disposed in a recess and each comprising an integral flat body having a central opening therethrough and having an exteriorly circular portion concentric with the opening, a rectangular head portion forming the other side of the unit body and having corners projecting beyond the exterior outline of said circular portion, the said unit bodies being inserted into the wheel body recesses circular portions first whereby each of the projecting corners is brought into abutting relation with the adjacent shoulder, the said other side of each unit body having a ball race formed therein concentric with said opening, and a lug extending from each of said corners across and in spaced relation with said circular portion and penetrating into the shoulder.

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