This invention relates to an improved carrier for circular articles, such as large grinding wheel stones.

An object of the invention is to provide a carrier which enables a heavy article to be easily picked up, transported safely, and released, and also functions as a jig for performing operations on the article, such as mounting a grinding wheel stone on a hub.

A further object is to provide a carrier of simple construction which overcomes the need for manually rolling large grinding wheel stones to transport them and for manually positioning them on hubs, thus eliminating hazards to workmen.

In accomplishing these and other objects of the invention, I have provided improved details of structure, a preferred form of which is shown in the accompanying drawings, in which:

Figure 1 is a side elevational view of an improved carrier constructed in accordance with my invention;

Figure 2 is an elevational view of the carrier taken at right angles to Figure 1;

Figure 3 is a fragmentary side elevational view similar to Figure 1 but on a larger scale; and

Figure 4 is a fragmentary elevational view similar to Figure 2 but on a larger scale.

My carrier includes an annular base plate 10 which has diametrically opposed integral ears 11 and arcuate flanges 12 welded to the ears and projecting therefrom. U-shaped bars 13 are welded to the exteriors of the respective flanges 12. Bearing pins 14 are welded to the ears of the respective flanges 12 and extend radially through the ears 13. The outer end portions of pins 14 contain diametric bores whose axes are inclined to the plane of the base plate 10, preferably at 45°. Pins 15 are permanently fitted into these bores with their end portions projecting from opposite sides of the bearing pins 14. Connectors 16 are removably pivoted on pins 14 in the spaces between the outside of bars 13 and the projecting pins 15. The connectors have keyhole slots 17 which enable the connectors to be slipped over pins 15 when the slots are aligned with the pins (Figure 4).

The carrier includes a yoke 18 and chains 19 which are suspended from the yoke and joined at their lower ends to the connectors 16.

A pair of spaced blocks 20 are fixed between each bar 13 and flange 12. Diametrically opposed J-shaped keepers 21 are pivoted to the respective pairs of blocks. The longer arm of each keeper extends through both blocks 20 and carries a cotter pin 22 intermediate the two blocks and a nut 23 at its end. A compression spring 24 encircles the longer arm of each keeper between the upper block 20 and the cotter pin 22 and thus urges the keeper toward the base plate. The shorter arm of each keeper normally bears against a plate 25 which spans the space between the flange 12 and bar 13.

In operation, the base plate 10 is placed against a circular article, such as a large grinding wheel stone, as shown in Figure 1. If the article is standing on edge, the base plate can be tilted about pins 14 into a vertical position for engagement with the article. Keepers 21 are turned to position their shorter arms over the article and are held in this position by springs 24. A crane hook can be engaged with the yoke for transporting the carrier and article. Normally the base plate remains in a vertical position when transporting an article. Flanges 12 and keepers 20 retain the article against accidental dropping when transported in this position. Nuts 23 limit outward movement of the keepers and thus take the load off the cotter pins 22. The crane can place the article over a hub, and the base plate and article can easily be turned about pins 14 to a horizontal position for attaching the hub in the usual manner. Since the base plate is annular and has a central opening, it does not interfere with this operation. Thereafter the article can be carried wherever it is needed, and the carrier released therefrom.

From the foregoing description it is seen that my invention affords a carrier of simple construction for safely transporting heavy circular articles which otherwise are awkward to maneuver. The carrier also functions as a jig for performing such operations as mounting a grinding wheel stone on a hub.

While I have shown and described only a single embodiment of my invention, it is apparent that modifications may arise. Therefore, I do not wish to be limited to the disclosure set forth but only by the scope of the appended claims.

I claim:

1. A carrier comprising a circular base plate, diametrically opposed arcuate flanges fixed to the circumference of said base plate and projecting therefrom, the outer end of the circumference of said base plate between said flanges being unobstructed to enable the base plate when lying vertically to move into abutting relation with the end face of a cylindrical article which rests on its circumferential face, diametrically opposed pins fixed to the respective flanges and extending radially therefrom, connectors pivoted to said pins, a yoke, flexible means suspended from said yoke and attached to said connectors for transporting the carrier, a pair of opposed J-shaped keepers, means pivotally mounting said keepers on said flanges, and springs acting against said keepers and said last named means urging said keepers toward said base plate, said flanges being adapted to contain portions of the circumference of an article abutted by said base plate and thus sustain the weight of the article, said keepers being adapted to bear against the other end face of the article and thus cooperate with said flanges to prevent the article from accidentally dropping.

2. A carrier comprising an annular base plate, diametrically opposed arcuate flanges fixed to the outer circumference of said base plate and projecting therefrom, the remainder of the outer circumference of said base plate between said flanges being unobstructed to enable the base plate when lying vertically to move into abutting relation with the end face of a cylindrical article which rests on its circumferential face, diametrically opposed pins fixed to the respective flanges and extending radially therefrom, connectors removably pivoted to said pins, means attached to said connectors for suspending and transporting the carrier, a pair of opposed keepers, means pivotally mounting said keepers on said flanges, and springs acting against said keepers and said last named means urging said keepers toward said base plate, said flanges being adapted to contain portions of the circumference of an article abutted by said base plate and thus sustain the weight of the article, said keepers being adapted to bear against the other end face of the article and thus cooperate with said flanges to prevent the article from accidentally dropping, said base plate being adapted to lie vertically for engaging and trans-
porting the article and to lie horizontally for performing an operation on the article.

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