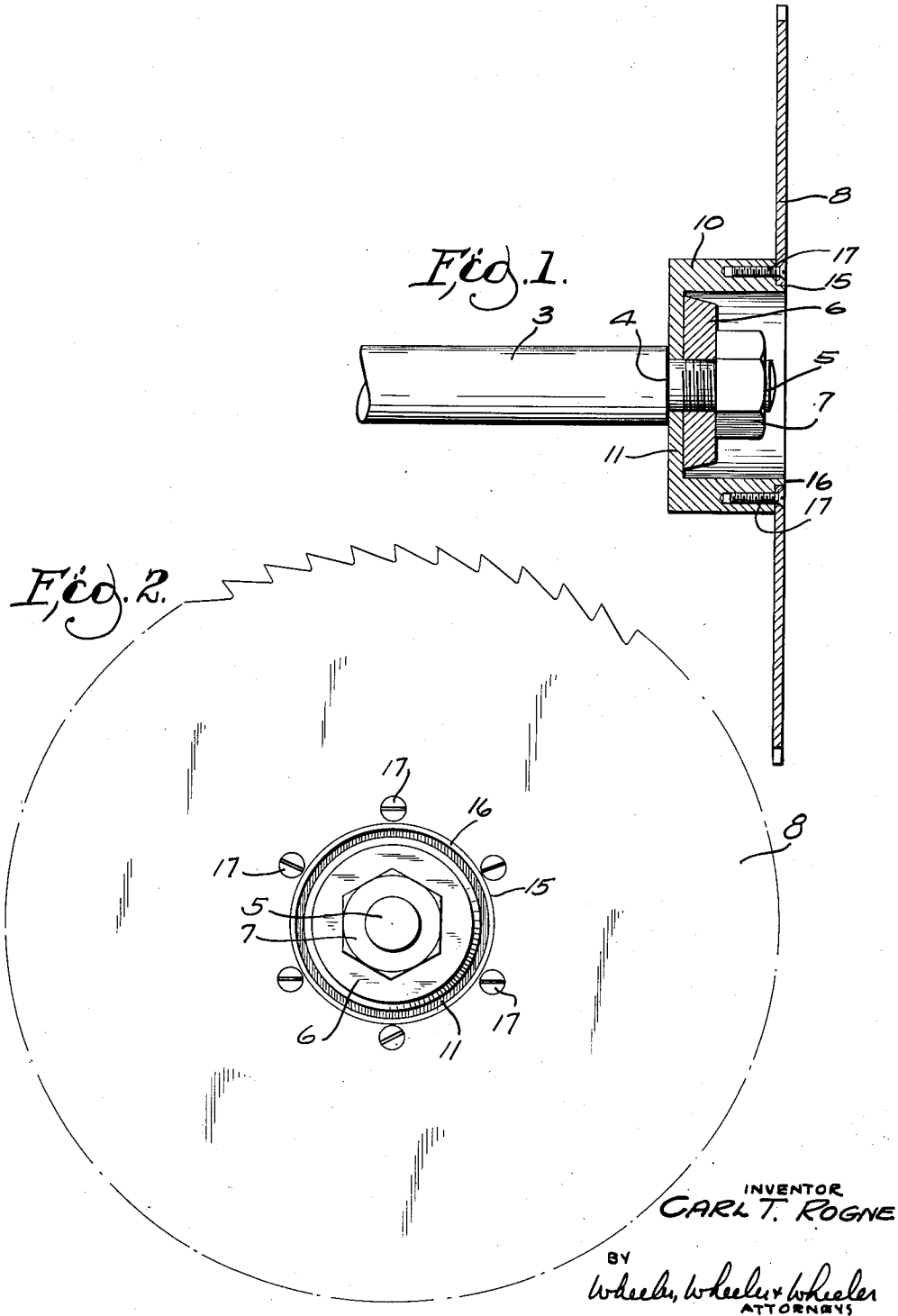


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FLUSH CIRCULAR SAW MOUNTING

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FLUSH CIRCULAR SAW MOUNTING

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4 Claims. (Cl. 143-155)

1 This invention relates to improvements in saw mountings.

It is a primary object of the invention to provide means whereby a circular saw or the like may be so mounted that it may be used in substantial face contact with a surface adjacent to which a cut is to be made and yet may be attached to or removed from a conventional arbor shaft in substantially a conventional manner.

In the drawings:

Figure 1 is a view in cross section through a saw mounted in accordance with the present invention.

Figure 2 is a view in face elevation of the saw and arbor shown in Fig. 1.

The arbor shaft 3 is conventional, having the usual shoulder at 4 beyond which extends the threaded end portion 5 of the shaft to receive the clamping disk 6 and nut 7 in the usual manner.

If the saw were also conventional, the disk 6 and nut 7 and the threaded extremity of the shaft would all project beyond the face of the saw disk 8. According to the present invention, however, a cup-shaped mounting member 10 is applied to support the saw 8. Such member having a base at 11 apertured to receive the threaded portion 5 of the arbor and to abut the shoulder 4 thereof. The interior of cup-shaped member 10 is of sufficient diameter to receive freely the clamping annulus 6 and the nut 7. The surface area of the annulus 6 is desirably made as large as possible to prevent rotary slippage, consequently in the preferred embodiment the annulus diameter approaches that of the interior of the cup shaped member 10. Furthermore the cup base 11 is made substantially planiform and at a right angle at its junction with tubular wall 10 so that the external periphery of the cup will be as small as possible consistent with the large interior of the cup. In this manner the saw may make a deep cut notwithstanding the mounting. The depth of the cup-shaped member 10 is such that the threaded end 5 of the arbor shaft does not project.

The saw disk 8 has an opening at 15 into which is preferably received an annular flange 16 carried by the cup-shaped member 10. A number of openings bored and tapped axially into the rim of the cup-shaped member 10 outside of the flange 16 thereof, receive the screws 17, for which the saw disk 8 is provided with countersunk holes registering with the tapped openings in the cup-shaped mounting member.

It will of course be understood that the cup-shaped mounting member comprises a relatively

2 permanent part of the saw blade, remaining fixed thereto for the purpose of mounting and demounting the blade. Assuming that a cross cut and rip saw were to be used interchangeably on the same arbor, each would be equipped, preferably, with its own mounting member so that the work of replacement would involve merely the removal of the nut 7 and washer 6, taking one saw and mounting member from the arbor, substituting another similar unit and replacing the washer 6 and nut 7.

All kinds of existing portable or flexible or fixed sawing devices may be equipped with saw units embodying the invention, with no change whatever in the arbor. Any device so equipped can be used to make a saw cut in direct immediate proximity to a surface which would obstruct the use of a saw mounted on the ordinary way upon its arbor. For example, a portable saw equipped with a blade in accordance with the present invention may be used to saw through a partition directly at the surface of a wall to which such partition is connected. If the blade were mounted in the ordinary way, the projecting end of the arbor would prevent the saw from being used closer than perhaps an inch and one-half from such wall.

I claim:

1. As a new article of manufacture, a mounting member applicable to a large center aperture in a saw disk for the support thereof, said mounting member comprising a cup having an interior diameter less than the diameter of the aperture in such disk and having a tubular wall provided at its end with an annular flange corresponding substantially in exterior diameter to the aperture of the saw disk, the depth of such cup-shaped member being sufficient to receive the threaded end of a saw mounting arbor and the interior diameter thereof being sufficient to receive a mounting nut and washer, the said mounting member having a base wall portion substantially normal to the tubular wall at its junction therewith and provided with an opening substantially coaxial with the flange and of such a size to receive said threaded arbor end.

2. In an attachment for mounting a conventional saw disk having a central aperture and planiform faces beyond the end of a conventional arbor having a shoulder and an arbor nut, a cup-shaped mounting member having an apertured bottom wall engageable on the arbor in abutment with the shoulder, and an integral tubular side wall projecting normally from the bottom wall coaxially with the aperture to an extent beyond

the end of the arbor and having a terminal surface normal to its axis and provided with tapped holes for saw disk screws, the interior of the said side wall being sufficiently large to receive wholly the arbor nut.

3. In an attachment for mounting a conventional saw disk having a central aperture and planiform faces beyond the end of a conventional arbor having a shoulder and an arbor nut, a cup-shaped mounting member having an apertured bottom wall engageable on the arbor in abutment with the shoulder, and an integral tubular side wall projecting normally from the bottom wall coaxially with the aperture to an extent beyond the end of the arbor and having a terminal surface normal to its axis and provided with tapped holes for saw disk screws, the interior of the said side wall being sufficiently large to receive wholly the arbor nut, together with an annular flange projecting axially from the inner periphery of the terminal surface of the tubular wall, a planiform saw disk having one face engaged with said surface and provided with a central aperture in which the flange is engaged and other apertures

registering with said holes, and screws extending through the last mentioned apertures into said holes and fixing said disk to said member.

4. The device of claim 1 wherein the washer
5 has a surface area substantially equal to the base wall area.

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