A. JOHNSON.

SAW FILING GAGE.

APPLICATION FILED AUG. 8, 1917.

1,270,032. Patented June 18, 1918.

Fig. 1.

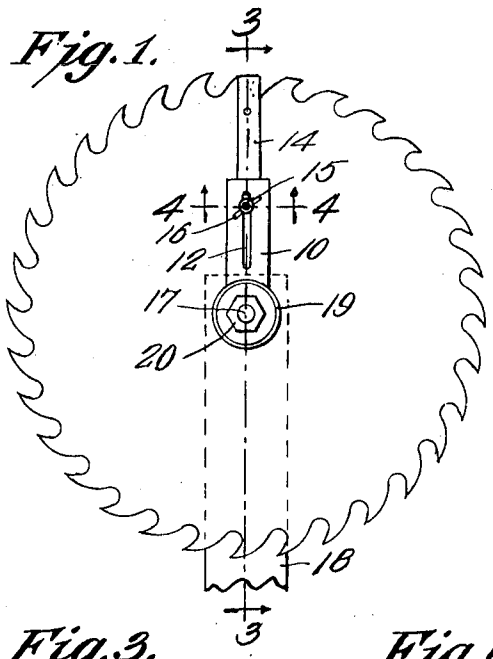


Fig. 2.

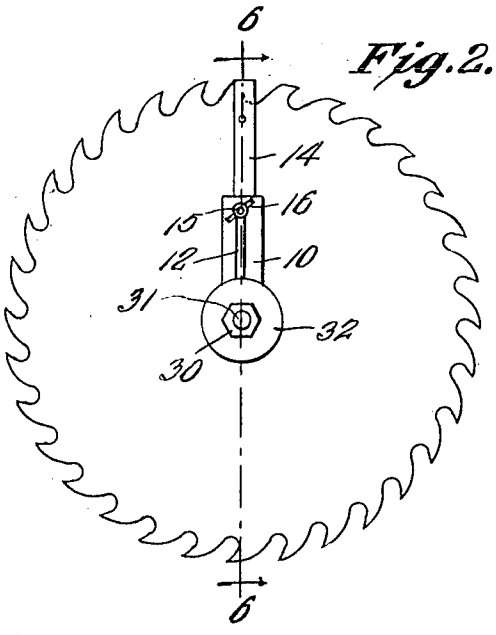


Fig. 3.

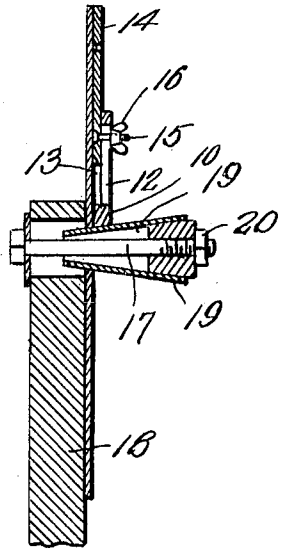


Fig. 6.

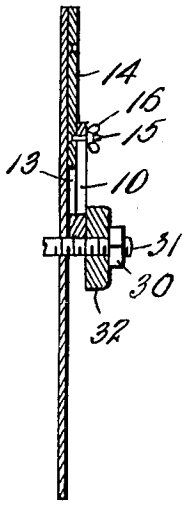


Fig. 4.

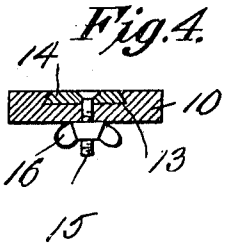


Fig. 5.

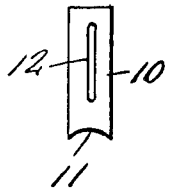
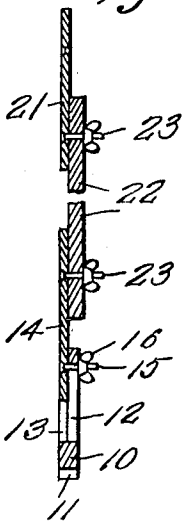


Fig. 7.



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ARTHUR JOHNSON, OF BURTON, OHIO.

SAW-FILING GAGE.

1,270,032. Specification of Letters Patent. **Patented June 18, 1918.**

Application filed August 8, 1917. Serial No. 185,145.

To all whom it may concern:

Be it known that I, ARTHUR JOHNSON, a citizen of the United States, residing at Burton, in the county of Geauga and State of Ohio, have invented certain new and useful Improvements in Saw-Filing Gages, of which the following is a specification.

This invention relates to filing gages, and is adapted particularly for use in connection with circular saws.

A further object of the invention is to provide a gage which is adjustable to circular saws of various sizes, and which may be used in truing or evenly filing the teeth of the saw without removing the latter from the mandrel.

A further object of the invention is to provide a filing gage of the character set forth which shall be of extremely simple and inexpensive construction, which is featured by the lack of complicated parts, which may be easily, quickly and accurately adjusted to various size saws, which may be used equally as well upon a saw removed from the mandrel as one mounted thereon, and which will prove thoroughly efficient in the attainment of the ends for which it is designed.

With these objects in view together with others which will appear as the description proceeds, the invention resides in the novel formation, combination and arrangement of parts, all as will be described more fully hereinafter, illustrated in the drawings and particularly pointed out in the claims.

In the drawings:

Figure 1 is a side elevation of a conventional form of circular saw and illustrating the application of a filing gage constructed in accordance with the invention,

Fig. 2 is a similar view, and illustrating the manner in which the gage is applied to the saw when the latter is mounted upon the mandrel,

Fig. 3 is a vertical sectional view taken substantially upon line 3—3 of Fig. 1,

Fig. 4 is a transverse sectional view taken upon line 4—4 of Fig. 1,

Fig. 5 is a detail view of the supporting standard of the extensible gage,

Fig. 6 is a vertical sectional view taken upon line 6—6 of Fig. 2, and

Fig. 7 is a view similar to Fig. 6, and illustrating a lengthening bar for extending the gage arm.

Referring now particularly to the drawings, 10 indicates a standard, formed of a relatively short bar of wood or metal, and having one end cut away arcuately as at 11. This standard is relatively thin, and is provided with a longitudinal slot 12 spaced equidistant from the opposing longitudinal edges of the said standard. The standard is provided on its rear face with a longitudinally disposed dovetailed groove or channel 13.

Arranged for longitudinal sliding movement in the channel 13 is a gage arm 14. This arm is formed preferably of metal, and, if desired, may be case hardened. The longitudinal edges of this arm are shaped so as to fit within the channel and to lie snugly beneath the inclined longitudinal walls of the said channel. One end of the arm 14 is provided with an outwardly extending bolt 15, and the said bolt is adapted to extend through the longitudinal slot 12 in the standard. A wing-nut 16 is threaded upon the end of the bolt to hold the said arm in adjusted positions.

In practice, the gage is applied to the circular saw by adjusting the arcuate lower edge 11 of the standard 10 upon the mandrel, as shown in Figs. 2 and 6. This may be done by loosening the retaining nut 30 upon the mandrel 31 and allowing the collar 32 thereon to move outwardly a short distance, as indicated in Fig. 6 of the drawings. The wing-nut 16 is then loosened so as to permit of the arm 14 being adjusted longitudinally of the standard. The adjustment in the arm is so made that the outer end of the latter is positioned adjacent the teeth to be operated upon so that a file or other grinding implement passed across the said end of the arm will cut away the tooth edge the desired distance. When the tooth edge has been cut down even with the end of the gage arm, the proper inclination will be given to the tooth, and sharpening of the latter will thus be facilitated. By moving the gage around the saw with the mandrel as a center, it is obvious that the teeth will be all cut away an equal distance.

If desired, the saw may be removed from the mandrel and secured upon a bolt or axle 17 at the upper end of a base or support 18. Assuming the axle to be smaller than the mandrel, a cone 19 is fitted over the axle and is adjusted so as to fit snugly within the opening of the saw blade. By tightening the nut 20 on the end of the axle, the cone

will be held firmly within the saw opening, and the gage may be rested upon the said cone, as shown in Fig. 3.

When it is desired to apply the gage to a saw of a radius greater than the length of the gage when the latter is fully extended, a supplemental gage arm 21 may be employed. This arm is identical with the arm 14 and may be spaced therefrom by a lengthening bar 22, bolts 23 being employed to effect the connection.

With the use of a gage of this character, it is obvious that the teeth of a saw may be very quickly and easily cut down a uniform depth, so that the said teeth will be in proper position for sharpening.

While the present is a disclosure of what is believed to be the preferred embodiment of the invention, it is to be understood that the invention is not limited thereto, but that various changes in the minor details of construction, proportion and arrangement of parts may be resorted to if desired without departing from the spirit of the invention as defined by the appended claims.

What is claimed is:

1. In a filing gage for a circular saw provided with a central opening, a support, a standard having an arcuate recess, a cone adapted to engage in the said saw opening, means for securing said cone to said support, the end of said standard being adapted to rest upon said cone, and an extensible arm upon said standard.

2. In a filing gage for a circular saw, a support, a cone adapted to fit in the central opening of the saw, means for securing said cone to said support, a standard having an arcuate cut at one end adapted to rest upon said cone, and an arm adjustably mounted upon said standard.

3. In a filing gage for a circular saw, a support, a cone adapted to fit in the central opening of the saw, a bolt extending through said cone and through said support, a standard conforming at one end to the shape of the said cone and adapted to rest upon the latter the said standard having a longitudinal slot therein, an arm, a bolt on one end of said arm extending through said slot and a nut threaded on said bolt and being adapted to bind the said arm against the standard.

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

ARTHUR JOHNSON.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."