July 3, 1928. 1,676,188

J. A. HUGUS

SAW FILING GUIDE

Filed May 16, 1927 2 Sheets-Sheet 1

Fig. 1.

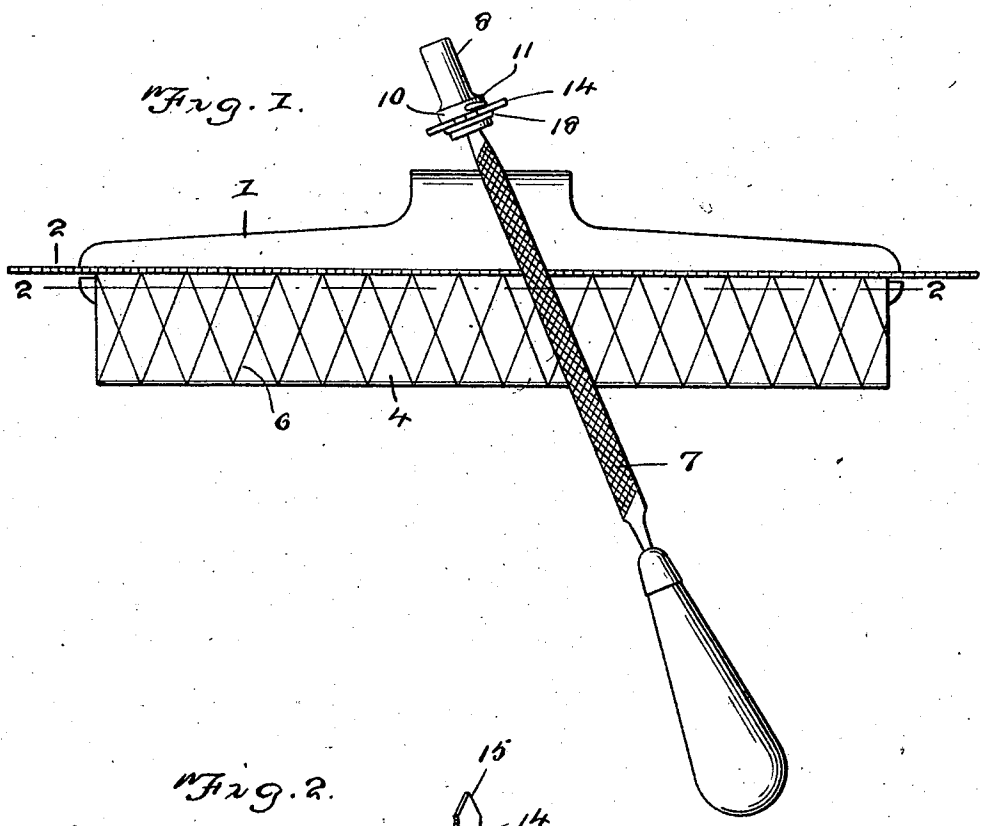
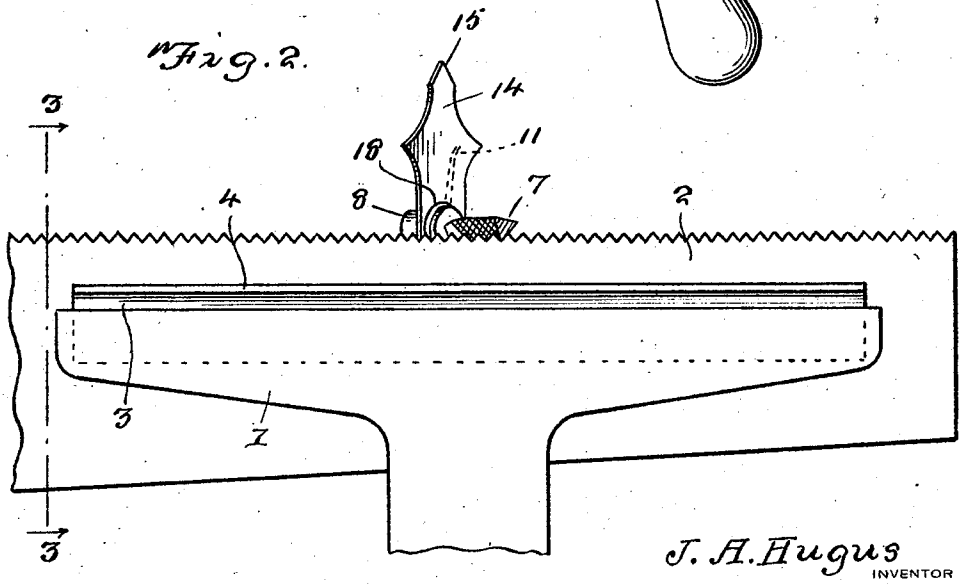


Fig. 2.



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Fig. 3.

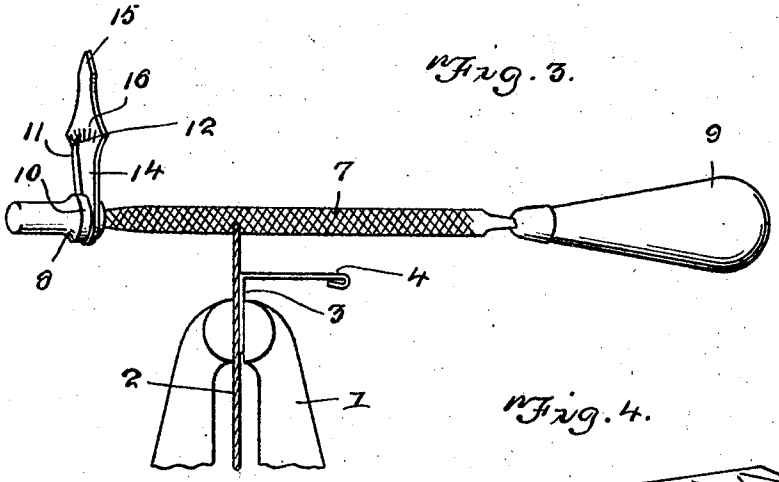


Fig. 4.

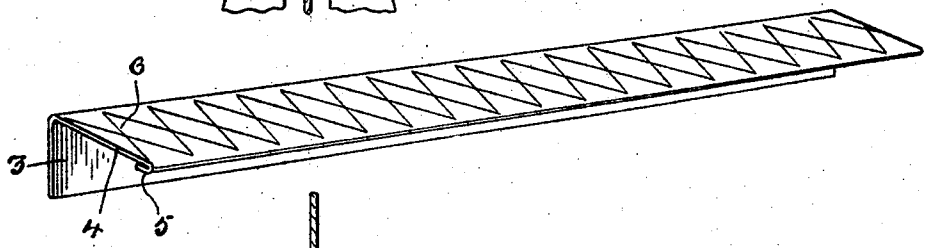


Fig. 5.

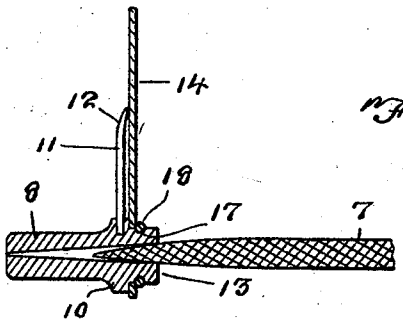


Fig. 6.

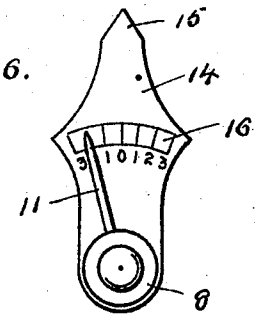
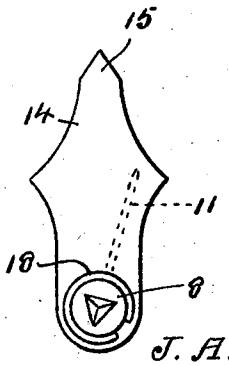


Fig. 7.



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Patented July 3, 1928. 1,676,188

UNITED STATES PATENT OFFICE.

JAMES A. HUGUS, OF FORT SCOTT, KANSAS.

SAW-FILING GUIDE.

Application filed May 16, 1927. Serial No. 191,875.

The successful filing of saws by hand is both a tedious and time consuming operation even to those skilled in this particular art. As a matter-of-fact, it is almost imposible to file all of the teeth of a saw so that the cutting edges thereof will be in the same straight line and to hold the file so that all of the teeth will be at the same angular pitch, as the successive movement of the file in the operation upon the different teeth of the saw will naturally cause a slight canting or tilting of the saw as well as the disarrangement of the angular plane at which the file is reciprocated. It may, therefore, be considered the primary object of this invention to provide means whereby the file will be held at the same angle for every tooth filed and the saw guided at the same angle when reciprocated between the several teeth of the saw during the filing operation. To this end I aim to provide a removable gauge plate for the saw clamp that has a horizontal surface inscribed thereon with lines of inclination at which the file is to be reciprocated in the filing operation, together with a graduated plate that is removably arranged upon either end of the file and which plate, has its upper end pointed, and the file receiving member that is revolubly associated with the plate carries a pointer that is movable over the graduations of the plate for holding the file at desired angles, there being friction means between the plate and the file holding member for preventing the free turning of either the plate or the member, the said friction means also holding the pointer in contacting engagement with the plate.

To the attainment of the above broadly stated objects and others which will present themselves as the nature of the invention is better understood, the invention resides in certain other novel features of construction, combination and operative association of parts, a satisfactory embodiment of which is disclosed by the accompanying drawings:

Figure 1 is a top plan view of my improvement in applied position.

Figure 2 is a sectional view approximately on the line 2—2 of Figure 1.

Figure 3 is a transverse sectional view approximately on the line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a perspective view of the gauge plate.

Figure 5 is a detail sectional view illustrating the manner in which the end of the file is frictionally held in the turnable member carried by the graduated plate.

Figure 6 is an elevation of the graduated plate, and the file carrying member associated therewith.

Figure 7 is a reverse plan view of the device disclosed in Figure 6.

Referring now to the drawings in detail, the numeral 1 designates the jaws of a saw clamp and 2 a saw which is clamped between the jaws.

In carrying out my invention I arrange against one of the faces of the saw blade 2 the vertical flange 3 of an angle gauge plate. The compressed jaws 1 hold the flange 3 tightly against the saw blade. The horizontal flange 4 of the gauge plate has its outer edge rounded and continued in contact with the under face thereof to form the said edge with a reinforcing bead 5. The upper or outer face of the horizontal flange 4 of the gauge plate has inscribed thereon oppositely directed cross angle lines 6 to indicate the direct angles at which the file 7 is to be moved in the sharpening of the saw.

The file 7, is designed to have either of its ends received in a cross sectionally round somewhat elongated member 8. The member 8 is preferably of lead or other soft ductile material and the said member has one of its ends formed with a V-shaped opening that merges into a rounded opening at its second end. By this arrangement it will be seen that the file 7 may be received in the member 8 and compressed in the bore thereof so as to effectively hold the said member on the file. The second or outer end of the file has attached thereto the usual handle 9.

The member 8, adjacent one of its ends, has an annular enlargement 10 in which is left one end of a finger in the nature of a pointer 11. The pointer has its outer and sharpened end rounded, as at 12. The end 13 of the member 8 is received through a round opening in a plate 14. This plate has its outer end merging into a pointed finger 15 and the said plate is graduated, as at 16, the said graduations being contacted by the rounded and sharpened end 12 of the pointer 11. The part 13 of the member 8 has an annular groove therethrough, as indicated by the numeral 17, and in this groove there is arranged a split spring friction member in the nature of a ring 18. The

ring 18 may have one or more convolutions and the annular depression 17 is so arranged as to permit of the friction member 18 contacting with the plate 14 to move the same into engagement with the shoulder formed by the enlargement 10, and likewise to cause the plate to frictionally contact with the rounded end 12 of the pointer 11. The result is that the plate 14 cannot be freely or accidentally turned on the file holding member 8.

The gauge plate provides a visible means whereby the sharpener of the saw will know exactly the pitch or angle at which the file is to be reciprocated in the sharpening of the saw. After the file has been received in the member 8 and attached thereto either the plate or the said member 8 is turned, one of these elements, however, being held stationary. This is to permit of the pointer 11 being arranged in a line with the proper graduation 16 on the plate 14. The pointed end 15 of the plate indicates the vertical position of the plate with respect to the file and consequently the angle at which the file is held supported so that it will be apparent that every tooth of the saw will be filed at the same angle and consequently that all of the teeth will be in or about the same straight line.

Having described the invention, I claim:—

1. A saw filing means including a clamp in which a saw to be sharpened is secured, an angle gauge plate having its vertical flange contacting with one of the faces of the saw and secured in the clamp, said plate having its horizontal flange inscribed with cross angle lines, to indicate the angle at which a file is to be directed during the saw sharpening operation, a member to which the outer end of the file is connected, a pointer on the member, and a gauge plate revoluble on the member having an outer pointed end and friction means for holding the graduated plate and member from free turning one on the other.

2. In a saw filing attachment, a member of ductile material, having a longitudinal bore therethrough which is triangular at one of its ends and which merges into a round aperture at its second end, said member having an enlarged shoulder portion and a rounded extension on said enlarged portion that is provided with an annular groove, a pointer finger having a reduced outer end which is rounded in one direction, a graduated plate having a round opening that receives the rounded portion of the member therethrough, said plate having an outer pointed end, and a split spring friction ring received in the groove of the said member and exerting a pressure upon the plate to force the same into frictional contact with the shoulder of the said member and to engagement with the rounded end of the pointer.

In testimony whereof I affix my signature.

JAMES A. HUGUS.