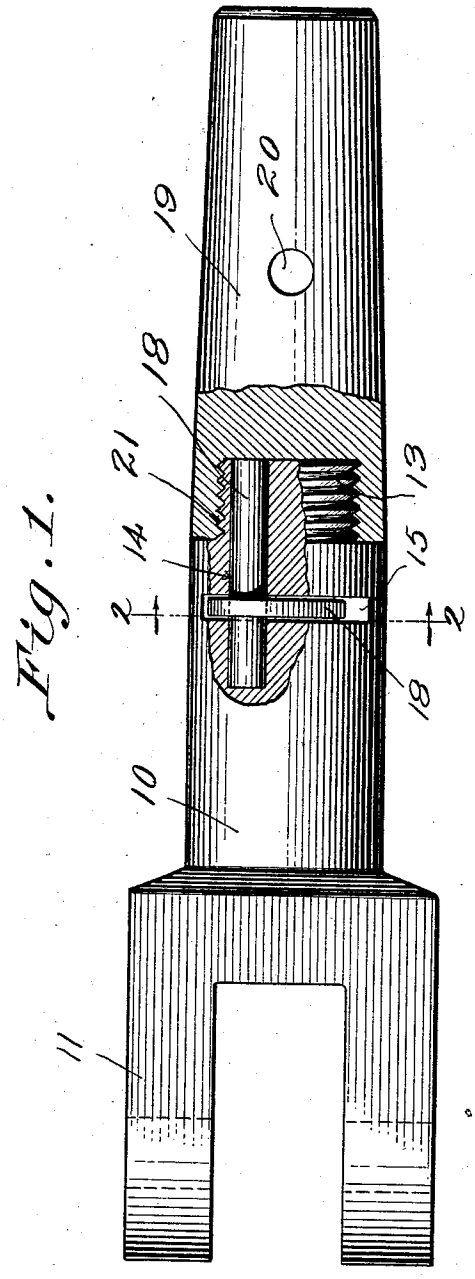
W. E. DUNKERLEY & B. C. KING.

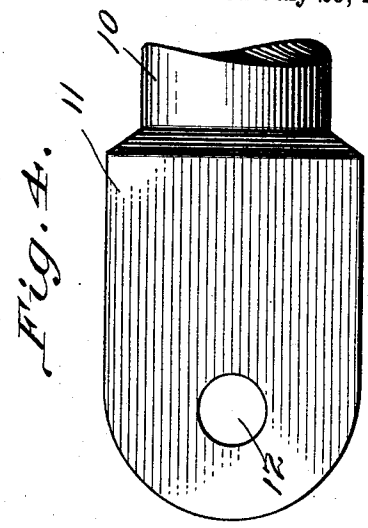
FLUE CUTTER.

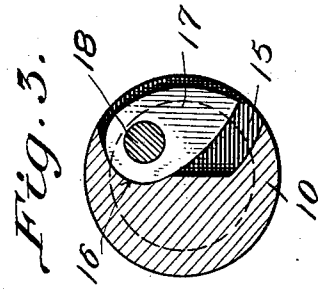
APPLICATION FILED MAY 3, 1912.

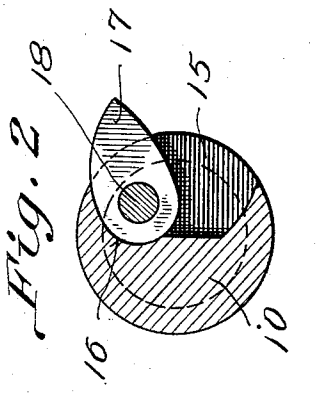
1,068,991.

Patented July 29, 1913.









WITNESSES

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FLUE-CUTTER.

1,068,991. Specification of Letters Patent. Patented July 29, 1913.

Application filed May 3, 1912. Serial No. 694,985.

To all whom it may concern:

Be it known that we, WALLACE E. DUNKERLEY and BERNARD C. KING, citizens of the United States, residing at Helena, in the county of Lewis and Clark and State of Montana, have invented certain new and useful Improvements in Flue-Cutters, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to flue cutters, and the principal object of the same is to provide a cutter which may be connected with a flexible driving cable, so that it may be turned to any angle desired, and which is provided with a pivotally mounted cutting knife. This knife is pivotally mounted so that the centrifugal force caused by the rotation of the cutter will throw the knife outward, thus bringing it in contact with the flue which it is desired to cut.

Another object of the invention is to provide the cutter with a removable tip which acts as a guide and which holds the pivot pin of the knife in place. This makes it very easy to replace the knife if it becomes broken, since the tip can be removed and the pivot pin very easily removed in order to replace the knife with a new one.

This invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a side elevation of the flue cutter with the central portion broken away to show the manner of mounting the cutting knife. Fig. 2 is a sectional view along the line 2—2 in Fig. 1, with the knife in an extended position. Fig. 3 is a view similar to Fig. 2, with the knife positioned within the cutter. Fig. 4 is a fragmentary view of the end of the cutter which is connected with the driving cable taken at right angles to the view shown in Fig. 1.

Referring to the accompanying drawings, it will be seen that this invention comprises the body portion 10 which has an enlarged bifurcated head 11 at one end, the head being provided with the openings 12, so that the end of the driving cable may be connected with the head 11. The opposite end of the body portion is reduced and threaded as shown at 13, and is provided with a longitudinally extended opening 14 and with a transversely extending pocket 15 which intersects the opening 14. The pocket 15 is provided with the curved inner wall 16 which permits the cutting knife 17 to turn readily upon its pivot pin 18 which is mounted in the opening 14. A point 19 which is provided with a transversely extended opening 20, is provided at one end with a threaded socket in which the threaded extension 13 is screwed. This point 19 forms the guide to hold the cutter in the flue and also holds the pivot pin 18 in place. Since this point is screwed upon the reduced end 13, it can very easily be removed and the pivot pin withdrawn if the knife becomes broken or needs sharpening.

When using this device, the device being assembled as shown in Fig. 1, the driving cable is connected with the head 11 thus enabling a rotary motion to be given to the body portion. The point 19 is inserted in the flue as far as desired and upon rotating the body portion by means of the driving cable, the knife will be thrown outward as shown in Fig. 2, so that the knife will come in contact with the curved wall 16, and thus limit it in its outward movement. The knife comes in contact with the flue and the flue is very readily cut off at the desired point. When the rotary motion ceases the knife drops back to the position shown in Fig. 3, and is thus prevented from being dulled while not in use.

Having thus described our invention, what we claim is:—

A flue cutter comprising a body portion formed in two members placed end to end in the same axial direction, the rear one of said members having a cross aperture, and bifurcated at its base, a reduced outwardly threaded projection on its front end and a horizontal opening extending through said extension, said rear member also having a transverse slot intersecting said longitudinal

opening, a cutter having an eccentric aperture positioned in said slot, a pin disposed in said opening and extending through said cutter, said outer member having a threaded socket adapted to be secured upon the extension of said rear member whereby the pin may be securely held or released.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

WALLACE E. DUNKERLEY.
BERNARD C. KING.

Witnesses:
OLIVE A. KARNES,
A. E. FENDER.

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