J. T. MEDEARIS.

GIN-SAW SHARPENERS.

No. 194,705. Patented Aug. 28, 1877.

Fig. 2.

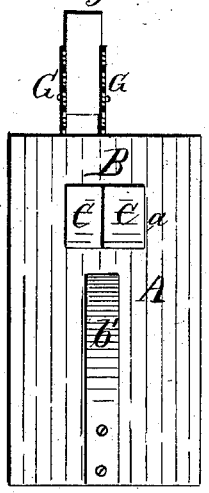


Fig. 3.

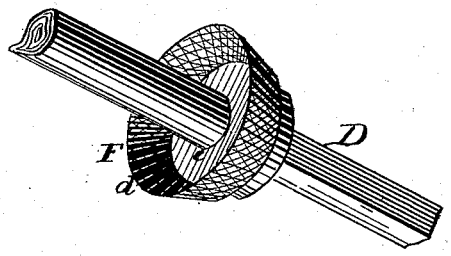
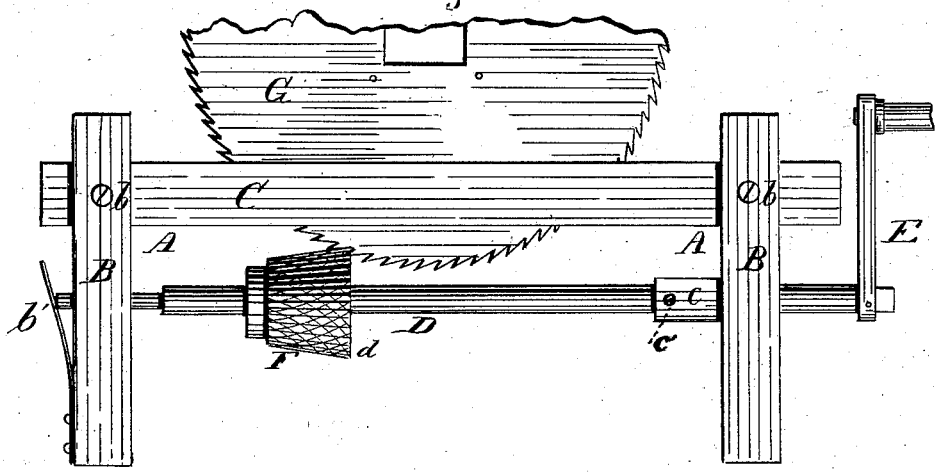


Fig. 1.



Attest:

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UNITED STATES PATENT OFFICE.

JOHN T. MEDEARIS, OF FAYETTEVILLE, ASSIGNOR OF A PART OF HIS RIGHT TO JAMES H. BELL, OF SAME PLACE, JOHN N. SULLIVAN, OF FLAT CREEK, AND DAVID J. NOBLITT, OF BOONEVILLE, TENNESSEE.

IMPROVEMENT IN GIN-SAW SHARPENERS.

Specification forming part of Letters Patent No. **194,705**, dated August 28, 1877; application filed July 14, 1877.

To all whom it may concern:

Be it known that I, JOHN THOMAS MEDEARIS, of Fayetteville, in the county of Lincoln and State of Tennessee, have invented certain new and useful Improvements in Gin-Saw Sharpeners; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure is a side elevation. Fig. 2 is an end view, and Fig. 3 is a perspective view, of the bowl-shaped file detached.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has reference to the construction of an apparatus upon which gin-saws may be sharpened rapidly, evenly, and, if necessary, by unskilled persons, as hereinafter more fully shown and described.

In the drawings, A is the frame of my improved apparatus. This consists, essentially, of two end pieces or uprights, B B, having mortises *a a*, large enough to accommodate the ends of two or more cross-pieces, C C, which are held in place in the mortices by set-screws *b b*.

D is a shaft, having its bearings in end pieces B B a suitable distance below mortises *a a*. At one end shaft D has a crank, E, by which it may be revolved, and upon the end piece B, opposite to the crank, is secured a spring, *b'*, pressing against the end of the shaft, as shown, and forcing it in the direction of the crank. The ends of the shaft are so constructed as to enable it to slide laterally in its bearings, and a sleeve, *c*, having a set-screw, *c'*, is adjustable upon the shaft so as to limit the extent of such lateral motion, as may be desired.

F is the file. This is made in the shape clearly illustrated in Fig. 3 of the drawings, where it is shown detached from the machine—that is, in a cup or bowl shape, presenting a sharp thin edge, *d*, which fits readily between the teeth of the gin-saw. It has a central perforation, *e*, which admits of its adjustment upon the shaft, as shown in Fig. 1. It may either be keyed to the shaft, or this latter may be squared, and the perforation *e* shaped correspondingly. In any case, the file should be firmly secured upon the shaft, so as not to give when the machine is put in operation.

When using my improved gin-saw sharpener, I place the saws between the several cross-pieces B B, between which they are clamped by tightening the set-screws *b b*. Two or more gin-saws (shown in the drawing at G G) may be sharpened at a time, if desired, providing, of course, that the teeth of all are properly adjusted in relation to the file, which should fit in between the teeth. The crank E is now turned, thus revolving the file, and sharpening the teeth between which it is first inserted, the spring *b'* serving to force the file against the work. After sharpening the first tooth of each saw, the position of the saws is changed, so as to bring the next one before the file, and so on until all are finished.

It is obvious that the saws, while being filed, may be arranged upon a suitable shaft above the frame or table A, so as to enable the teeth to be easily presented to the file in successive order; but this being common in saw-filing machines, I have not deemed it necessary to show.

My improved gin-saw-sharpening machine is exceedingly simple in construction, and is easily handled and operated. The bowl-shaped file, which is the essential element of my invention, performs the work of sharpening with great rapidity and regularity, the adjustable sleeve *c* serving as a gage to give the same depth to each cut.

In gin-saws the cuts are so deep, and the teeth so close together, that it is difficult to sharpen them by hand, or with an ordinary file; but these disadvantages are overcome by my invention, the cup-shaped file of which may be so constructed and arranged as to make the cuts of any desired depth without increasing the distance between the teeth.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a gin-saw sharpener, the cup or bowl

shaped file F, having a sharp edge, *d*, substantially as and for the purpose shown and specified.

2. The combination, in a gin-saw sharpener, constructed substantially as herein described, of the cup or bowl shaped file F, and adjustable gaging-sleeve *c*, substantially as and for the purpose herein set forth.

3. The improved gin-saw sharpener herein described, consisting essentially of the mortised uprights B B, cross-pieces C C, set-screws *b b*, shaft D, having cup-shaped file F and gaging-sleeve *c*, and spring *b'*, all combined and operating substantially in the manner and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN THOMAS MEDEARIS.

Witnesses:
C. A. GILL,
E. T. KELLY.