(No Model.)

H. C. AGAN.

SAW SHARPENING MACHINE.

No. 264,022. Patented Sept. 5, 1882.

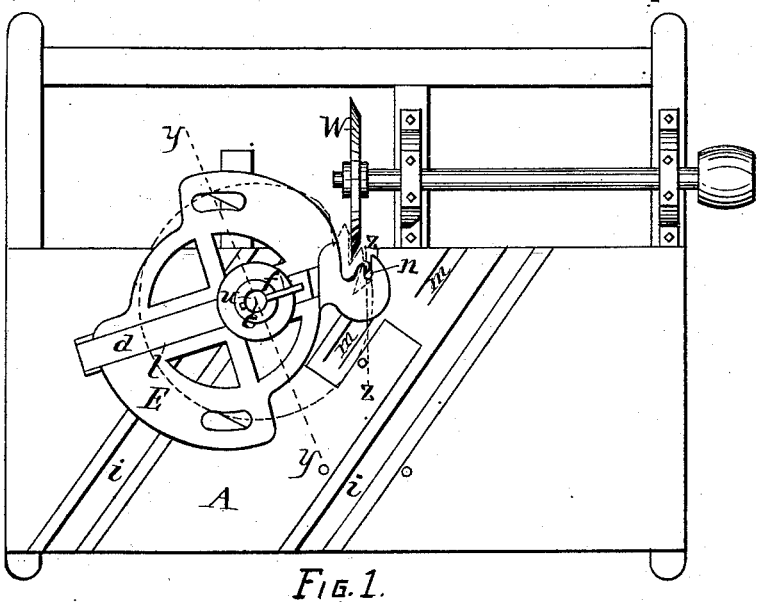

FIG. 1.

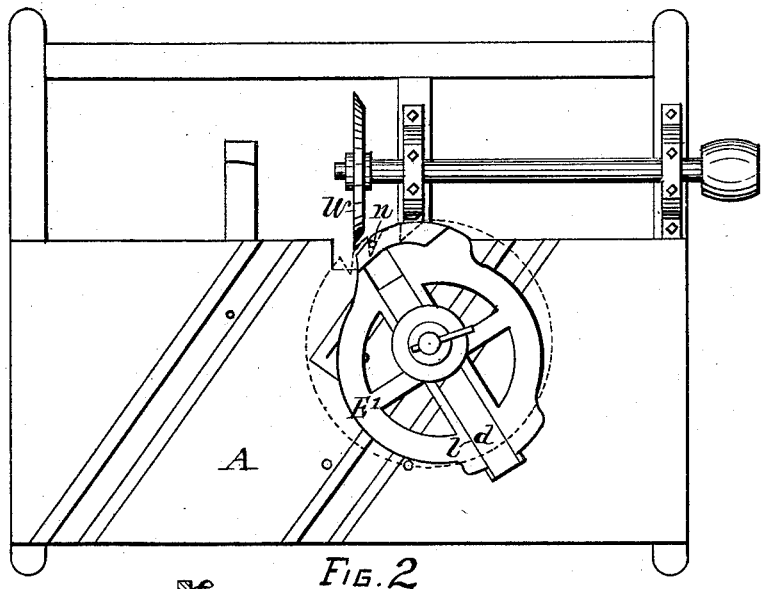

FIG. 2.

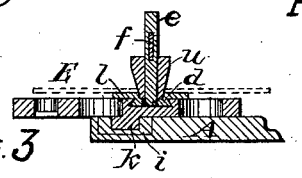

FIG. 3.

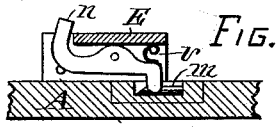

FIG. 4.

WITNESSES

C. Benduzon

Wm. E. Raymond

INVENTOR

Hiram C. Agan

per Dodd, Isaac & Hy, Attys.

UNITED STATES PATENT OFFICE.

HIRAM C. AGAN, OF FAYETTEVILLE, NEW YORK, ASSIGNOR OF ONE-HALF TO COLLIN, ARNOLD & SISSON, OF SAME PLACE.

SAW-SHARPENING MACHINE.

SPECIFICATION forming part of Letters Patent No. 264,022, dated September 5, 1882.

Application filed June 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, HIRAM C. AGAN, of Fayetteville, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Machines for Sharpening Saws, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to certain improvements on the saw-sharpening machine for which I filed an application for United States Letters Patent on March 11, 1882, my present improvement being specially designed for sharpening rip or slit saws; and it consists in certain novel devices for guiding and holding the saw in the various positions required to expose the teeth thereof at the proper angle to the grinding-wheel, as hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figures 1 and 2 are plan views of my invention. Fig. 3 is a transverse section on line *y y* in Fig. 1, and Fig. 4 is an enlarged section on line *z z* to better illustrate the spring stop-pin which sustains the saw-tooth against the grinding-wheel during the process of sharpening.

Similar letters of reference indicate corresponding parts.

A denotes a table, on which is mounted in a vertical position the grinding-wheel W, the periphery of which is beveled, as shown, the aforesaid parts being constructed and arranged substantially in the same manner as the corresponding parts illustrated in my before-mentioned prior application.

E E′ are interchangeable plates, which are placed directly on the top of the table A, and have on their under side a tongue, K, which slides in one of two diagonal parallel grooves or ways, *i i*, in the top of the table. The top of the plates E E′ are provided with a groove, *l*, which is dovetail in cross-section. In said groove slides endwise a plate, *d*, which is provided with a screw-threaded eye or socket in which is secured a post, *e*. This post passes through the eye of the saw to be sharpened, and over the post is slipped an inverted conical sleeve, *u*, the small end of which is forced into the eye of the saw by means of a key, *f*, passing through a slot in the post, the entrance of the sleeve *u* into the eye of the saw serving to secure the saw concentrically on the post. The saw thus clamped on the plate E is carried toward and from the grinding-wheel by sliding the blade back and forth on the table A.

To the ends of the plates E and E′ nearest the grinding-wheel is connected a spring stop-pin, *n*, in the form of a pivoted lever having one end projecting upward and constituting the stop-pin proper, and the opposite end turned downward and forming a step which is held in contact with the top of the table by a spring, *v*, arranged to depress said end of the lever. The described ends of the pivoted lever are of such lengths and projections that the stop-pin proper will be below the top of the plate E E′ when the step end of the lever rests on the main surface of the table. A short inclined groove, *m*, in the top of the table near the grinding-wheel and in the path of the step of the aforesaid lever, allows said step to descend, and thus causes the stop-pin proper to rise and project above the top of the plate E E′. Said stop-pin is brought to bear on the back of the saw-tooth which is subjected to the grinding-wheel. The plate E, placed on one of the ways *i* on the table, holds the saw in position for sharpening the inner or abrupt edge of the tooth, as shown in Fig. 1 of the drawings, and the plate E′, placed in the other groove or way *i* on the table, carries the saw to the grinding-wheel in proper position for sharpening the outer edge of the tooth, as illustrated in Fig. 2 of the drawings.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the grinding-wheel W and the table A, provided with the diagonal ways *i i*, as shown, of the interchangeable plates E E′, adapted to lie flat upon said table, and having on their under side a tongue, K, fitted to the ways *i*, and provided on their upper side with the slide *d*, post *e*, and key *f*, substantially as shown and set forth.

2. In combination with the grinding-wheel W and the table A, provided with the ways *i*

i and inclined depressions *m m*, as shown, the plates E E′, provided with the tongue K and stop-pin *n*, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Fayetteville, in the county of Onondaga, in the State of New York, this 20th day of May, 1882.

HIRAM C. AGAN. [L. S.]

Witnesses:
A. W. CHASE,
CHAS. A. HOPKINS.