

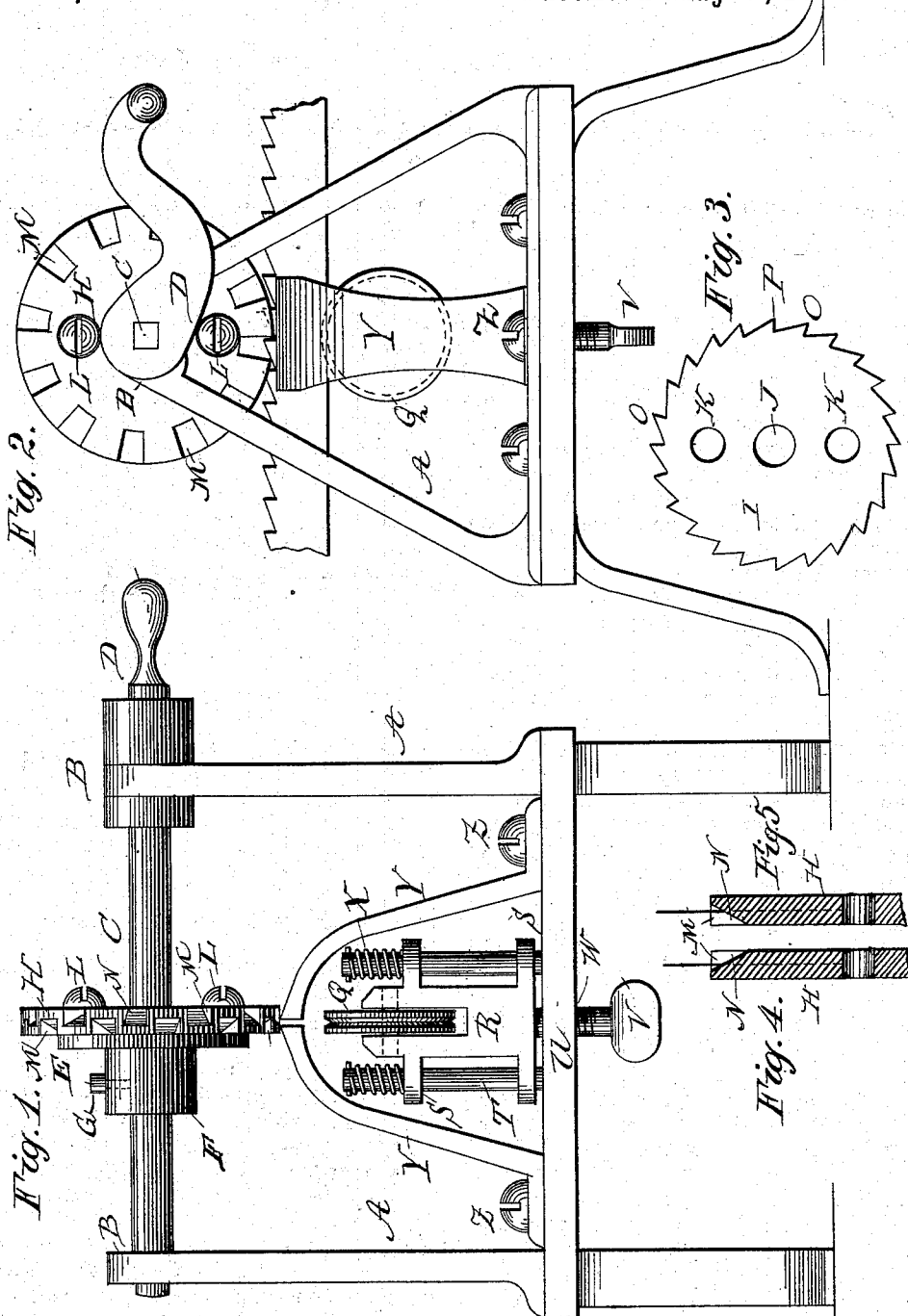
(Model.)

J. C. STEVENS.

MACHINE FOR SETTING, SWAGING, AND SHARPENING SAWS.

No. 276,641.

Patented May 1, 1883.



Witnesses.

Mathiasine S. Adams.
Erwin C. Stevens

Inventor.

John C. Stevens

UNITED STATES PATENT OFFICE.

JOHN C. STEVENS, OF NATICK, MASSACHUSETTS.

MACHINE FOR SETTING, SWAGING, AND SHARPENING SAWS.

SPECIFICATION forming part of Letters Patent No. 276,641, dated May 1, 1883.

Application filed October 25, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN C. STEVENS, of Natick, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Saw Setting, Swaging, and Sharpening Machines; and I do hereby declare that the following is a clear, exact, and full description of the same, 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 1 is a side view of my improved saw setting, swaging, and sharpening machine. Fig. 2 is an end view of the same. Fig. 3 is a side view of the swaging and sharpening disk, and Figs. 4 and 5 are sectional detail views of the setting-disk.

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

My invention has relation to machines for setting, swaging, and sharpening saws; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a frame, the upper part of which forms bearings B, in which a shaft, C, is journaled, provided at one end with a crank, D, or other means for rotating the same.

A circular disk, E, having a laterally-projecting sleeve, F, is fastened upon the middle of shaft C by means of a set-screw, G, passing through the sleeve and bearing with its inner end against the surface of the shaft.

H and I are respectively the setting and the swaging and sharpening disks, both of which are of a slightly larger diameter than disk E, and are provided with central apertures, J, admitting of their being placed upon shaft C, and screw-holes K, through which fastening-screws L may be inserted to secure them to the face of disk E. The rim of the setting-disk H is provided with recesses M, open at the sides and rim of the disk, the inner sides or bottoms, N, of which are beveled, commencing a short distance over the central plane of the disk, and inclining toward the side of the disk in such a manner that when the rim of the disk—the recesses in which must correspond in their relative distances to the relative

distances of the saw-teeth—is brought to bear against the toothed edge of the saw, the beveled inner sides of the recesses will force the saw-teeth alternately to each side, thus setting the teeth. The rim of the swaging and sharpening disk I is somewhat wider than the teeth when set, and is serrated, so as to form a series of teeth, O, of a size corresponding to the size of the teeth in the saw, and having one radial and one inclined side, forming transverse sharp edges P, which will serve, when brought to bear against the toothed edge of a saw, to trim the vertical edge of the teeth, while the flat inclined sides of teeth O will press upon the backs and points of the teeth, thus swaging them.

The saw is fed under the setting or swaging disk upon a grooved disk, Q, journaled in a block, R, having laterally-projecting eyes S, which slide upon upright bars T upon the table U of the frame. A screw, V, turns in a female screw-threaded hole, W, in the table, and bears with its upper end against the under side of block R, while spiral springs X, wound around uprights T and fastened to their upper ends, bear against the upper surfaces of eyes S, so that by turning screw V upward the block is raised, and with it the saw, traveling with its back in the grooved rim of disk Q, while by screwing it down the springs will force the block down with it. The saw is, furthermore, guided by two adjustable guides, Y, one upon each side of the saw, which are fastened adjustably upon table U by means of screws Z, passing through the slotted horizontally-bent lower ends of the guides.

It will thus be seen that by having setting and sharpening and swaging disks provided with different sizes of teeth various sizes of saws may be set, sharpened, and swaged by passing them once under the setting-disk, removing that, and substituting therefor the swaging and sharpening disk, and passing them under that disk, the uniform bevel of the recesses M and of teeth O serving to keep all the teeth set at one angle and sharpened to one length and pitch.

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

1. The saw-setting disk H, having alternat-

ing recesses M in its rim, open at the sides
and rim of the disk, and having beveled inner
sides, N, and means for rotating it and sup-
porting the saw, as and for the purpose shown
5 and set forth.

2. In a machine for setting, swaging, and
sharpening saws, the combination of the frame
A, having table U and guide-bars T, shaft C,
disk E, having sleeve F and set-screw G, and
10 adapted to have the setting or swaging disks
secured upon it, grooved disk Q, block R,
having laterally-projecting eyes S, screw V,
springs X, and adjustable guides Y, as and for
the purpose shown and set forth.

3. The combination of the sharpening-disk 15
H, having beveled recesses M, central aper-
ture, J, and screw-holes K, and secured by fast-
ening-screws L to the face of disk E upon
shaft C, grooved disk Q, journaled in block R,
sliding upon uprights T, and having adjusting- 20
screw V and springs X, and guides Y, sliding
adjustably at their lower slotted ends upon
set-screws Z on the table U, as and for the
purpose shown and set forth.

JOHN CUMMINGS STEVENS.

Witnesses:

JAMES M. BEAL,
JOSHUA M. BROWN.