

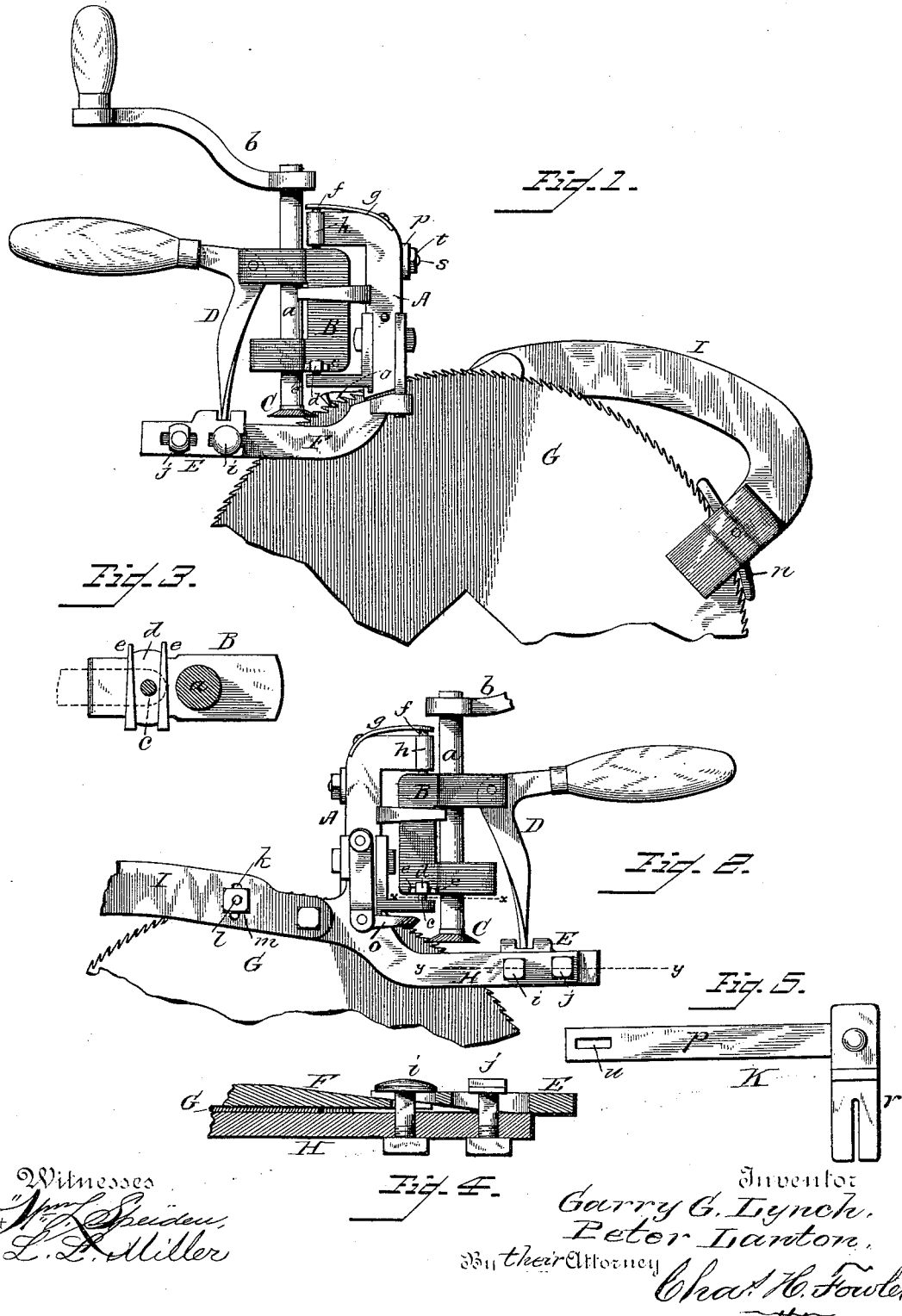
(No Model.)

G. G. LYNCH & P. LANTON.

SAW SHARPENING DEVICE.

No. 348,168.

Patented Aug. 24, 1886.



UNITED STATES PATENT OFFICE.

GARRY GERALDAS LYNCH AND PETER LANTON, OF ILLAWARD, LOUISIANA.

SAW-SHARPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 348,168, dated August 24, 1886.

Application filed February 9, 1886. Serial No. 191,381. (No model.)

To all whom it may concern:

Be it known that we, GARRY GERALDAS LYNCH and PETER LANTON, citizens of the United States, residing at Illaward, in the parish of East Carroll and State of Louisiana, have invented certain new and useful Improvements in Saw-Sharpeners; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side elevation of our invention, showing it in position for use on a gin-saw; Fig. 2, a similar view showing the reverse side of the device with a portion broken away; Fig. 3, a detail sectional view taken on line *x x* of Fig. 2; Fig. 4, a similar view taken on line *y y* of same figure, and Fig. 5 a detail view of the brace.

The present invention has relation to certain new and useful improvements in saw-sharpeners, and refers more particularly to that class adapted for sharpening saws used in ginning cotton, wherein it is of the greatest importance that the gum or bottom of the notch between the teeth be as round as possible, and that there be no sharp edges to cut or injure the fiber.

The object of the invention, therefore, is to provide a simple and effective device for attachment to the saw and the file of the device so under control that a clean, round, smooth gum is made that will not injure the fiber and with comparatively little labor by the operator, which objects are attained by the construction substantially as shown in the drawings, and hereinafter described and claimed.

In the accompanying drawings, A represents a stationary frame, to which is pivoted a bracket, B, the arms of which form bearings for an upright shaft, *a*, and to the lower end of this shaft is attached the file C. A handle, *b*, at the upper end of the shaft, enables it to be rotated, and with it the file C, which may be turned from side to side by the lateral swinging of the bracket B, thus enabling the bottom and sides of the notch or gum of the saw to be rounded smoothly and cleanly. The pivot *c* on the bracket B depends from a tapering block, *d*, held in a socket upon the

under side and lower end of the bracket by keys *e*, one on each side of the block, the object of which is to adjust the position of the bracket from a perpendicular to an angle, so as to adapt the file to different thicknesses or sizes of saws. The upper pivot, *f*, depends from the end of a flat spring, *g*, the opposite end of said spring being attached to the upper end of the frame A, and the pivot, extending down through an eye, *h*, forms the stationary axis of the bracket. By slightly raising the free end of the spring *g* the pivot *f* is elevated sufficiently to admit of the bracket being removed for adjustment, as hereinbefore described.

To the bracket B is pivoted a bell-crank hand-lever, D, the lower end thereof engaging a notched slide, E, by which means it can be moved either back or forth, to loosen or tighten the pivoted or hinged jaw F of the clamp upon the saw G.

The meeting ends of the slide E and jaw F are wedge shape, and overlap each other, as shown in Fig. 4. The bolts *i j*, which pass through the stationary clamp-bar H, also pass through slots in the slide and pivoted jaw of the clamp.

To loosen the clamp F, the lower end of the bell-crank hand-lever D is made to engage with the notch in the sliding wedge E, as shown in Fig. 1, and the handle end of the lever raised. This will push back the sliding wedge and release the clamp upon the saw and admit of the device being moved and the file placed in the gum of the saw.

After the device is in position on the saw, and the file in the gum thereof, the file is revolved by means of the handle on the shaft until the desired depth is cut, after which the bell-crank hand-lever is raised to loosen the clamp, and the file placed in the next gum, the file being moved from side to side by means of the handle end of the bell-crank lever at the same time it is being revolved, thus cutting the gum out round and smooth on both sides.

One end of a rest, I, is connected to the frame A, and is adjustable by means of the slot *k* and bolt and nut *l m*, so as to adapt it to saws of different sizes. The rest I is curved, as shown, and its free end preferably slotted

to fit over the saw or straddle it, and in this slot or bifurcated end of the rest is a pivoted bar, *n*, which rests directly upon the perimeter of the saw.

- 5 To the frame *A* is pivoted a feeding-pawl, *o*, its free end engaging with the teeth of the saw, as is common in this class of devices.

Although we have shown and described our device as applied to gin-saws, it is equally applicable to all classes of saws; and to steady the device when in use we employ a brace, *K*, consisting of an arm, *p*, and slotted head *r*, the arm being held to the frame *A* by bolt *s* and nut *t*. The brace thus connected is at right angles to the frame and the slotted head *r*, straddling the third saw to the right or left of the frame, and is adjustable by means of the slot *u* in the arm.

We claim—

- 20 1. In a saw-sharpener, the combination, with a suitable frame and clamping device for securing it to the saw, of a swinging bracket supported in said frame, and a rotary shaft carrying the file and having its bearings in the bracket, substantially as and for the purpose set forth.

2. In a saw-sharpener, a suitable frame and means for attaching it to the saw, in combination with a swinging bracket provided with an adjustable pivot, and a rotary shaft carrying the file and having its bearings in the bracket, substantially as and for the purpose specified.

3. In a saw-sharpener, a suitable frame and rotary shaft carrying a file, in combination with a clamping device for securing the frame to the saw, consisting of a stationary clamp-arm and a pivoted or hinged jaw and a slide,

said jaw and slide having wedge-shaped ends which overlap each other, substantially as and for the purpose described. 40

4. In a saw-sharpener, a suitable frame, a swinging bracket supported therein, and a rotary shaft carrying the file having its bearings in the bracket, in combination with a rest adjustably connected to the frame and having a slotted extremity, and a bar pivoted therein, substantially as and for the purpose set forth. 45

5. In a saw-sharpener, a frame having a swinging bracket supported therein having a rotary shaft carrying a file, in combination with a bell-crank hand-lever pivoted to the bracket and a clamping device for holding the frame on the saw, consisting of a stationary clamp-arm and a pivoted or hinged jaw wedge shape at its end, and a wedge-shape slide operated by the lever, substantially as and for the purpose specified. 50 55

6. In a saw-sharpener, a suitable frame carrying the shaft and file and a clamping device for securing said frame to the saw, in combination with a brace consisting of an arm and slotted head, said brace being adjustably connected to the frame at right angles thereto, whereby the slotted head may straddle the saw to the side of the one being sharpened, substantially as and for the purpose set forth. 60 65

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

GARRY GERALDAS LYNCH.
PETER LANTON.

Witnesses:

J. C. BOSS,
W. S. BROWN.