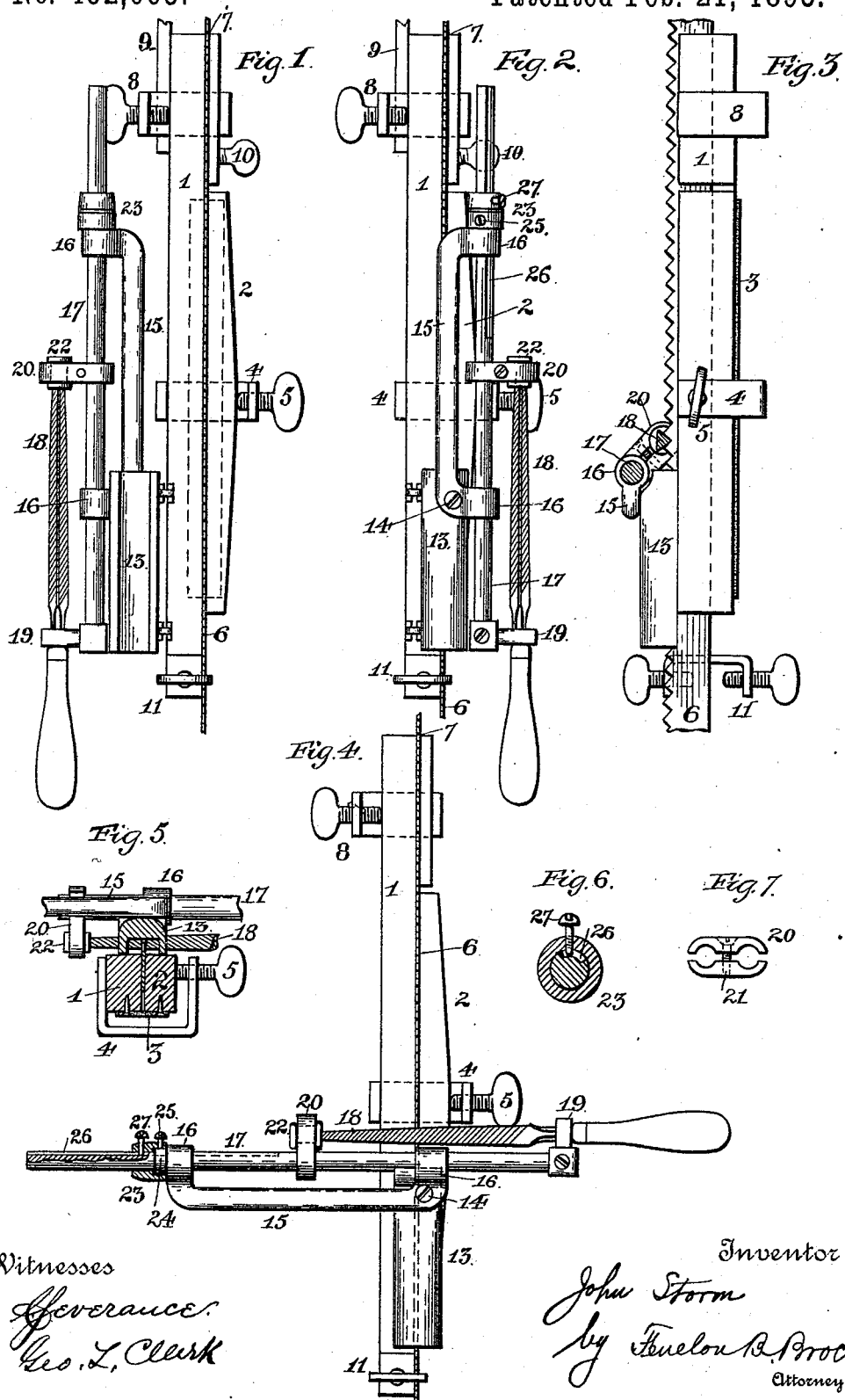


J. STORM.
FILE GAGE AND CLAMP.

No. 492,065.

Patented Feb. 21, 1893.



Witnesses

Everance
Geo. L. Clark

Inventor

John Storm
by F. B. Brock
Attorney

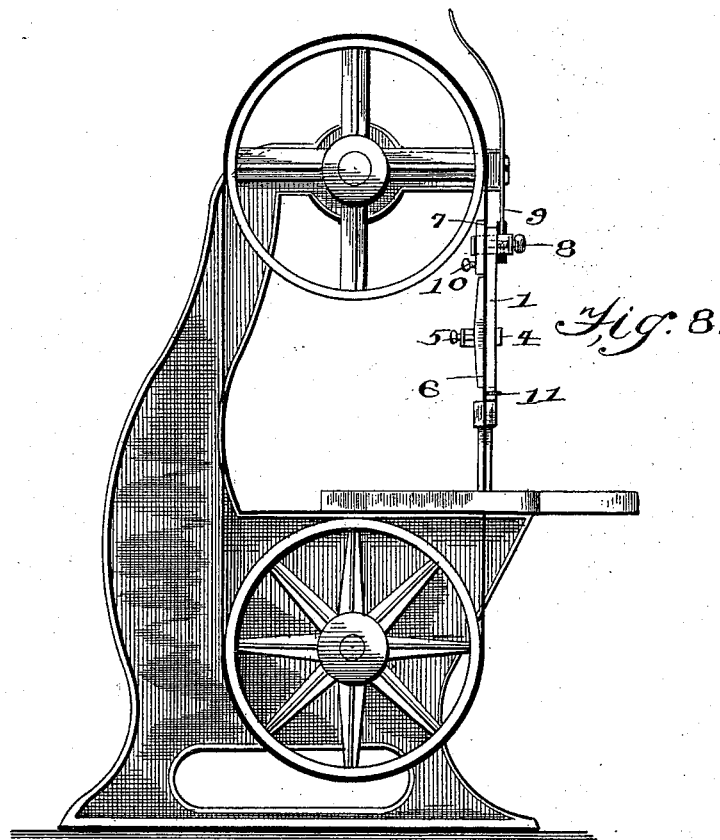
(No Model.)

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WITNESSES

W. H. Brown
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INVENTOR

John Storm
By F. H. Brock

UNITED STATES PATENT OFFICE.

JOHN STORM, OF KIRKSVILLE, MISSOURI.

FILE GAGE AND CLAMP.

SPECIFICATION forming part of Letters Patent No. 492,065, dated February 21, 1893.

Application filed February 27, 1892. Serial No. 423,086. (No model.)

To all whom it may concern:

Be it known that I, JOHN STORM, a citizen of the United States, residing at Kirksville, in the county of Adair and State of Missouri, have invented certain new and useful Improvements in File Gages and Clamps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Figure 1 represents a side elevation of a device embodying my improvements. Fig. 2 is a similar view with the parts shown in a different position. Fig. 3 is an edge view of my invention partly in section. Fig. 4 is a front side elevation of my device, with the file-gage shown in position for sharpening the teeth of the saw. Fig. 5 is a detail view partly in section and partly broken away. Figs. 6 and 7 are detail views hereinafter referred to. Fig. 8 is a side elevation of a sawing machine to which I have applied my saw-clamp.

My invention relates to saw-blade clamps and means for filing the teeth of saws.

My improvements consist, in the construction and combination of the several parts which will first be described in detail and the features of novelty therein then set forth in the claims.

In the drawings—1 represents the main bar or frame of the saw clamp.

2 is a bar hinged to the frame 1 by hinge 3, and 4 represents a spanner-frame provided with a set screw 5 by means of which the clamp 2 is adjusted against the side of the saw-blade 6.

7 is a groove formed in one end of the main bar 1 within which the saw-blade 6 takes and passes.

8 is a second spanner provided with a suitable binding or set screw, by means of which the saw clamp can be attached to any projecting part of a sawing machine, such as the depending end 9 of the frame of such a machine.

10 is a set screw in the upper portion of the

clamp for holding the saw-blade in place against the main bar with a varying tension.

11 is a spanner or clamp at the lower end of the main bar 1 provided with double set screws, by means of which my device may be attached to the saw-guide or head of the machine.

I use in combination with my saw-clamp a file-gage and file for sharpening the teeth of the saw. This latter device I may, where desirable or practicable, attach to the main bar 1 by hinges 12.

13 is the hand-rest or bar, having a slot or cavity on its under side within which the saw-blade takes when the hand-rest is placed over the same. Attached to the hand-rest 13 by the pivotal joint 14 is the file-gage which is adapted to be swung in a plane with the rest 13 so as to lie at any angle thereto.

15 is the main frame of the file-gage, having bearings 16 within which the shaft 17 reciprocates.

18 is the file, preferably of the three-cornered variety, which is hung in bearings 19 and 20, carried by the shaft 17. The latter bearing 20 is adjustable upon the shaft 17 by a screw 21, and is composed of two parts having bearings in the opposite ends, which are adapted to embrace both the shaft 17 and the spool 22, in which the outer end of the file 17 is seated. This allows of different lengths and sizes of files to be inserted in my device.

23 is a collar which is inserted upon the shaft 17 and slipped over a boss 24 on the bearing 17, where it is securely held by a set screw 25.

26 is a longitudinal slot or spline cut in the periphery of the shaft 17, within which takes a set screw 27 adapted to play therein during the reciprocal movements of the shaft 17, and at the same time prevent any rotation of the shaft in its bearings.

In order to permit the file to engage the saw-teeth at any desired vertical angle, the set screw 25 is loosened and the collar 23 is swung around upon the boss 24 carrying with it the shaft 17, by means of its connection with the collar through slot 26 and screw 27. This permits the file to be set down upon the saw-teeth.

For the purpose of filing the teeth at any horizontal angle desired the filing device is adapted to be horizontally swung upon the pivoted joint 14 so that the file may engage the teeth diagonally.

In operation the left hand is placed upon the hand-rest 13, and the file reciprocated by its handle by the right hand in a position similar to that shown in Fig. 4.

The slot 26 is sufficiently wide to permit a limited oscillating movement of the shaft 17 in addition to its reciprocal motion.

I claim—

1. A saw-clamp consisting of a main bar, a bar-clamp hinged thereto, a clamp at one end for securing said bar to the saw-guide, a clamp at the other for securing said bar to the frame of the machine, and a clamp for holding the saw-blade in place.

2. The combination in a machine for filing and clamping the blades of saws of a filing device, consisting of a hand-rest adapted to be pivotally swung over the saw teeth, a fil-

ing frame pivoted thereto, and a shaft carrying a file reciprocating therein, and a clamping device consisting of a main bar having clamps for holding the saw-blade and for attaching said bar to the frame of a sawing machine.

3. A filing device for saws, consisting of a hand-rest, a filing-frame pivoted thereto, a reciprocating shaft provided with a slot carried in bearings in the filing-frame, a file secured to said shaft, a collar carried upon the filing-frame, means for securing the collar to the frame whereby the former may be rotated on the latter, and a key or screw located on the collar and adapted to project within the slot.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN STORM.

Witnesses:

GEO. W. CLEM,
PORTER R. SMITH.