

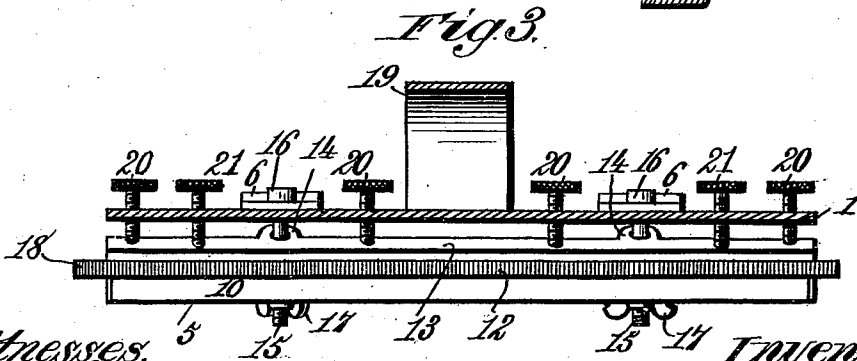
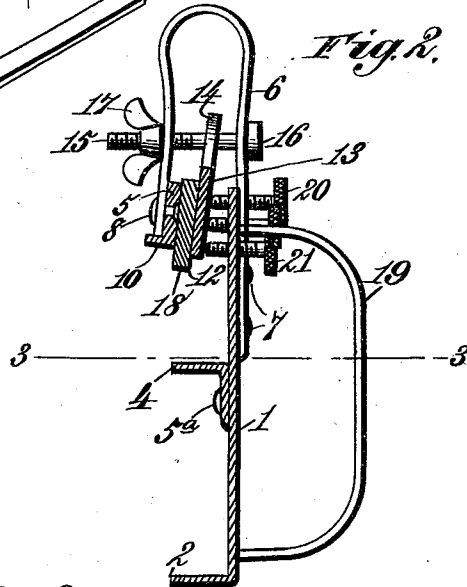
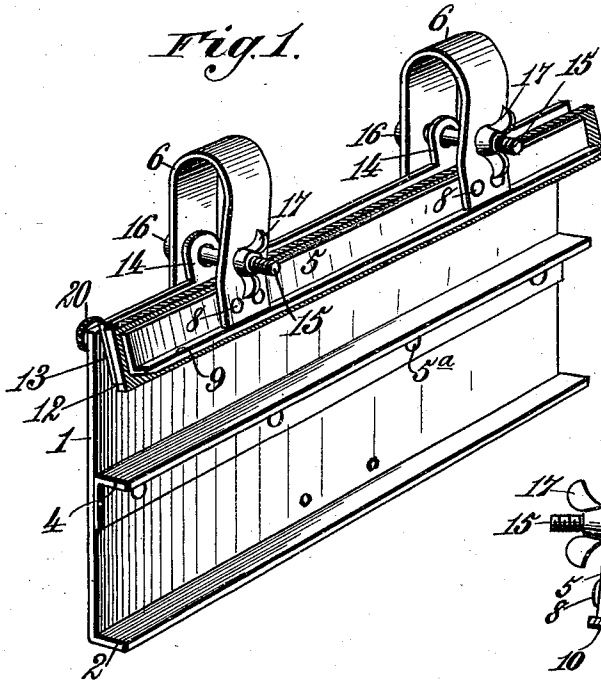
(No Model.)

H. C. BURNETT.

IMPLEMENT FOR DRESSING SIDES OF SAW TEETH.

No. 551,718.

Patented Dec. 17, 1895.



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UNITED STATES PATENT OFFICE.

HARVEY C. BURNETT, OF WAUSAU, WISCONSIN, ASSIGNOR OF ONE-HALF
TO HIRAM DUNFIELD, OF SAME PLACE.

IMPLEMENT FOR DRESSING SIDES OF SAW-TEETH.

SPECIFICATION forming part of Letters Patent No. 551,718, dated December 17, 1895.

Application filed June 29, 1895. Serial No. 554,448. (No model.)

To all whom it may concern:

Be it known that I, HARVEY C. BURNETT, a citizen of the United States, residing at Wausau, in the county of Marathon and State of Wisconsin, have invented new and useful Improvements in Implements for Dressing the Sides of Saw-Teeth, of which the following is a specification.

This invention has for its object to provide a new and improved hand implement for dressing the sides of saw-teeth, to provide an implement of the character referred to with novel means for guiding it in its movements on the saw-blade while dressing the sides of the saw-teeth, and to provide novel means for gripping and holding a steel or other file or similar dressing-tool at any required angle of inclination relatively to the base or support of the implement against which the saw-blade rests as the implement is reciprocated to dress the sides of the saw-teeth.

To accomplish these objects my invention consists essentially in the combination of a base-frame having a rest for the saw-blade, a file-supporting plate adjustable to varying angles of inclination relatively to the base-frame and arranged at the inner or rear edge thereof, means for adjusting the said file-supporting plate to the required angle of inclination, a clamp-bar arranged opposite the file-supporting plate for clamping the file thereupon, and means for supporting and clamping the clamp-bar on a file placed upon the file-supporting plate.

The invention also consists in the features of construction and the arrangement or combination of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of the improved implement for dressing the sides of saw-teeth. Fig. 2 is a transverse sectional view; and Fig. 3 is a longitudinal sectional view taken on the line 3 3, Fig. 2.

In order to enable those skilled in the art to make and use my invention I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates the base-frame, which is preferably composed of a flat steel or other metal plate, having at its front edge

a laterally-projecting saw-rest flange 2. The steel or other plate 1 is rectangular in form, and the saw-rest flange 2 is preferably formed integral with the plate; but obviously it can be made as a separate piece and riveted or otherwise secured thereto.

The numeral 4 indicates a secondary saw-rest flange, which is preferably composed of an angle-iron having one flange extending at right angles to the base frame or plate 1 and the other flange secured to the latter by rivets 5 or other suitable devices. The saw-rest flange 4 is arranged at some distance from the flange 2, and the flanges are of equal height, so that it is possible to place the edges of the flanges against the surface of the saw, and then reciprocate the base frame or plate beside the saw-blade.

The inner or rear edge of the base frame or plate 1 is provided with a spring-support for supporting and holding a clamp-bar 5. The spring-support here illustrated comprises two bowed steel or other metal springs 6 having one extremity secured to the under side of the base frame or plate 1, through the medium of rivets 7 or other suitable devices. The other ends of the bowed springs overhanging the inner or rear edge portion of the base frame or plate are secured to the rectilinear clamp-bar 5 by rivets 8 or other devices.

The clamp-bar 5 is composed of a narrow rectangular plate of metal having at its front edge a laterally-extending flange 9, the front surface 10 of which is smooth and rectilinear and is adapted to rest against the points of the saw-teeth and glide thereupon when the implement is reciprocated on a saw-blade for dressing the sides of the saw-teeth, as will hereinafter appear.

The steel or other file or similar dressing-tool 12 is arranged upon a file-supporting plate 13, composed of a flat rectangular piece of metal, having its rear edge provided with projecting ears 14 having orifices or perforations through which the screws 15 extend. The screws 15 are provided at one end with heads 16, and at the opposite ends with screw-threads engaged by thumb-nuts 17, which are adapted to bear against the upper parts or portions of the bowed metal springs 6, so that

when the thumb-nuts are tightened the bowed springs are compressed and the file or other dressing-tool 12 is clamped or gripped between the file-supporting plate 13 and the clamp-bar 5. When the file or dressing-tool is clamped or gripped in the manner stated, the front edge portion 18 thereof projects some distance in front of the guide-surface 10 of the clamp-bar 5, and the sides of the saw-teeth are adapted to lie upon the projecting portion 18 of the file or other dressing-tool for the purpose of dressing the sides of the saw-teeth when the implement is reciprocated along the saw-blade.

The reciprocating motion of the implement is readily effected through the medium of a handle 19, secured to the back of the base frame or plate 1, and adapted to be grasped by the hand of the operator.

The file-supporting-plate 13 is susceptible of being adjusted to varying angles of inclination relatively to the surface of the base frame or plate 1, and to accomplish this I provide two sets of adjusting-screws 20 and 21. I preferably employ four of the screws 20 and two of the screws 21, but the number can be increased or diminished as circumstances may justify. The adjusting-screws 20 and 21 are engaged with screw-threaded orifices in the base frame or plate 1, and the screws 20 are arranged in one line, while the screws 21 are arranged in another line slightly in advance or in front of the screws 20, so that if the screws 20 be screwed inwardly and the screws 21 be screwed outwardly the inner or rear edge of the file-supporting plate 13 will be raised, and the front edge thereof will be lowered, and conversely if the screws 21 be screwed inwardly and the screws 20 be screwed outwardly the front edge of the file-supporting plate 13 will be raised, and the inner or rear edge will be lowered.

By the simple means described the angle of inclination of the file-supporting plate 13 can be quickly changed to suit the conditions required, according to the bevel to which it is desired to dress the saw-teeth. The angular adjustment of the file-supporting plate 13 is rendered possible by reason of the flexible character of the yielding support composed of the bowed metal springs 6, and at the same time the bowed springs permit the file or dressing-tool 12 to be rigidly clamped or gripped between the clamp-bar 5 and the file-supporting plate 13.

The file-supporting plate 13 is retained in proper relation to the base frame or plate 1 by reason of the ears 14 being loosely engaged with the screws 15.

In the practical use of the improved implement, it is placed upon the side of a saw-blade, so that the edges of the saw-rest flanges 2 and 4 squarely support the implement, and the sides of the saw-teeth rest upon the projecting portion 18 of the file or other dressing-tool 12, while the points of the teeth may or may not bear directly against the guide-

surface 10 of the clamp-bar 5. The implement is then reciprocated by the hand of the operator grasping the handle 19.

The file-supporting plate 13 can be accurately and rapidly adjusted as occasion may require by simply adjusting the screws 20 and 21, as hereinbefore explained.

The file or other dressing-tool 12 can be quickly removed by simply loosening the thumb-nuts 17, and can be readily clamped and gripped in position between the clamp-bar 5 and the file-supporting plate 13 by simply tightening the nuts 17, as will be obvious.

The improved implement is simple and economical in construction; it is convenient in practicable use; it will accurately dress the sides of all the saw-teeth to a uniform and exact degree, and will be found very advantageous and efficient for the purpose in hand.

Having thus described my invention, what I claim is—

1. The combination of a base-frame, having a lateral rest to bear against a saw-blade, a spring yielding support secured to the base-frame, and having a clamping bar overhanging the base-frame, a file supporting plate located between the base-frame and the clamping bar of the spring yielding support, and adjustable to varying angles of inclination relatively to the base-frame between the latter and said clamping bar, said clamping bar and file-supporting plate being adapted to receive a file between them, means for supporting the file-supporting plate from the base-frame and adjusting said file-supporting plate to varying angles of inclination, and devices for moving the clamping bar of the spring yielding support toward the file-supporting plate and base frame for clamping the file between the clamping bar and the file-supporting plate, substantially as described.

2. The combination of a base frame, having a lateral rest to bear against a saw blade, a spring yielding support secured to the base-frame and having a clamping bar overhanging the base-frame and provided with a longitudinal flange at one edge which forms a guide to bear against the points of the saw teeth, a file supporting plate located between the base frame and the clamping bar of the spring yielding support, adjusting screws passing through the base frame and projecting from the rear thereof for the purpose of supporting and adjusting the file supporting plate to different angles of inclination, and screws and thumb-nuts acting upon the spring yielding support for clamping the file between the said clamping bar and the said file supporting plate, substantially as described.

3. The combination of a base-frame having a rest to bear against a saw-blade, a file-supporting plate adjustable to varying angles of inclination relatively to the base frame, two sets of adjusting screws for adjusting the file-supporting plate to the required angle of inclination, a spring-yielding support carried by the base-frame and provided with a clamp-bar

for clamping a file or other dressing tool upon the file-supporting-plate, and screws and thumb-nuts acting upon the spring-yielding support for clamping the clamp-bar on the file or other dressing tool, substantially as described.

4. The combination of a base-frame, a file-supporting plate arranged at the inner or rear edge of the base-frame and adjustable to varying angles of inclination, adjusting screws for adjusting the file-supporting plate to the required angle of inclination, bowed metal springs secured at one end to the base-frame and provided at the opposite end with a clamp-bar for clamping a file or other dressing tool upon the file-supporting plate, and screws and thumb-nuts for acting upon the bowed springs to clamp the clamp-bar against the file or other dressing-tool, substantially as described.

5. The combination of a base-frame, a file-supporting plate arranged at the inner or rear edge of the base-frame and adjustable to varying angles of inclination, two sets of adjusting screws engaging the base-frame and bearing against the file-supporting plate for adjusting the latter to the required angle of inclination, bowed springs secured to the base-

frame and carrying a clamp-bar having a rectilinear guide surface for the points of saw-teeth, and screws and thumb-nuts for acting on the bowed springs to clamp the clamp-bar on the file or other dressing tool, substantially as described.

6. The combination of a base-frame, a file-supporting plate adjustable to varying angles of inclination and having projecting ears, adjusting screws for adjusting the file-supporting plate to the required angle of inclination, a spring-yielding support secured to the base-frame and carrying a clamp-bar for clamping a file or other dressing tool upon the file-supporting plate, screws carried by the yielding support and engaging the ears of the file-supporting plate, and thumb-nuts for compressing the spring-yielding support and clamping the clamp-bar against the file or other dressing tool, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HARVEY C. BURNETT.

Witnesses:

W. G. DEVOE,
JOHN CAWLEY.