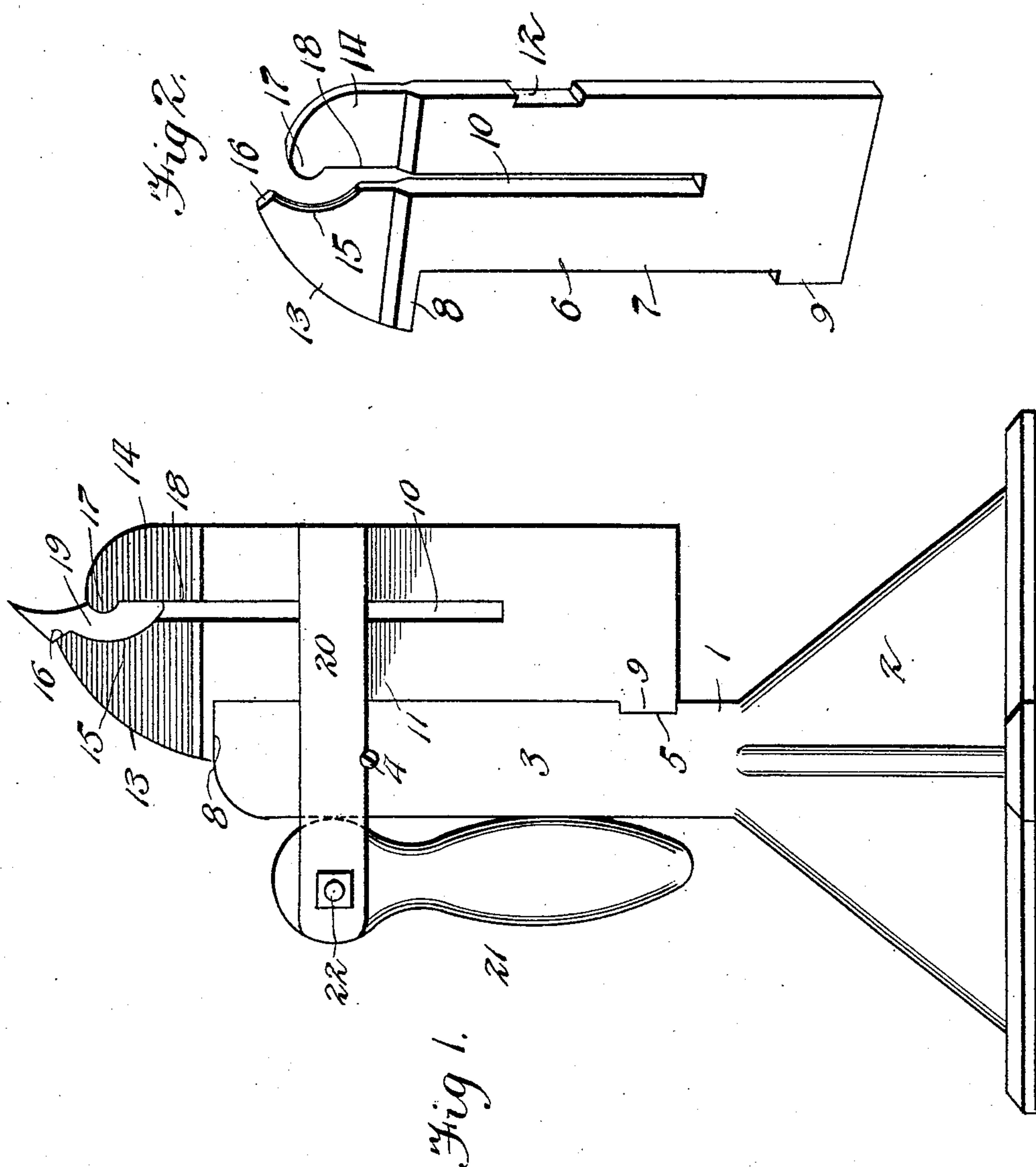


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SAW TOOTH HOLDER.
APPLICATION FILED MAY 19, 1908.

930,235.

Patented Aug. 3, 1909.



Witnesses

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SAW-TOOTH HOLDER.

No. 930,235.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed May 19, 1908. Serial No. 433,748.

To all whom it may concern:

Be it known that I, WILLIAM B. SANDERS, a citizen of the United States, residing at Meadowview, in the county of Washington and State of Virginia, have invented new and useful Improvements in Saw-Tooth Holders, of which the following is a specification.

This invention relates to a saw tooth holder particularly designed for holding the detachable teeth of circular saws during the operation of swaging, sharpening and otherwise treating them, the object in view being to provide a simple, effective and reliable device of this character by which such teeth may be firmly and securely held while they are being operated upon, and which device embodies a novel construction of clamp having relatively movable jaws and means for operating said jaws to clamp and release the teeth.

A further object of the invention is to provide a clamp which may be used in connection with a support forming a part of the holder or independently thereof in connection with an ordinary vise, thus increasing the adaptability for use and convenience of the appliance.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawing, in which:—

Figure 1 is a side elevation of a saw tooth holder embodying my invention. Fig. 2 is a perspective view of the clamp detached from the support.

Referring to the drawing, the numeral 1 designates a suitable support comprising a base 2 of any preferred form and adapted in any suitable manner to be fastened to a work bench or other like horizontal support, and having a standard or upright 3 projecting therefrom and carrying at each side a supporting pin, screw or projection 4 and formed in its lower forward edge with a recess 5. Detachably mounted upon the standard is a clamp 6, consisting of an oblong rectangular plate formed of spring metal, said plate being provided with a vertical rear bearing edge 7 to rest against the front edge of the standard and formed at its upper and lower ends with a horizontal supporting shoulder 8 and a retaining lug or projection 9 to respectively rest upon the

upper end of the standard and seat within the recess 5, to loosely hold said clamp in position upon the standard. The clamp is longitudinally and centrally incised or slotted, as at 10, from a point below its center upwardly through its upper edge, to produce relative spring arms 11 and 12, which are respectively provided at their upper ends with relatively fixed and movable clamping jaws 13 and 14, formed by reduced extensions upon the upper edge of the plate. The rear portion of the jaw 13 overhangs the shoulder 8, and the front edge of said jaw is provided with a segmental seat recess 15 and an oblique shoulder above the same, while the adjacent or rear edge of the jaw 14 is formed with a spur or projection 17 lying opposite said recess and a clamping face or shoulder 18 immediately below the said projection.

It will be understood from the foregoing description that the arm 12 through the spring action of the plate is adapted to be drawn toward the arm 11 and to automatically spring outward therefrom. The saw tooth 19 which is to be swaged, sharpened or otherwise treated is inserted between the opposing faces of the jaws, as illustrated in Fig. 1, with the curved rear face of its shank seated in the recess 15, the shoulder at the base of its tooth proper resting against the shoulder 17 and the lower front surface of its shank clamped by the shoulder 18 of the jaw 14, the projection 17 of which latter extends into the usual recess in the front face of said shank. When the jaw 14 is drawn toward the jaw 12 the tooth will be firmly and securely held, thus enabling it to be treated in an effective manner.

A yoke or U-shaped strap 20 is provided to embrace the clamp and straddle the standard, with its cross portion bearing against the front edge of the clamp and its arms extending on opposite sides of the same and on opposite sides of and beyond the rear edge of the standard 3, the lower edges of such arms resting upon and being supported and guided by the pins 4. The yoke will thus hold the shoulder 8 and lug 9 in engagement with the standard and prevent casual disconnection of the clamp. A cam lever 21 is fulcrumed between the rear ends of the arms of the yoke upon a pin or bolt 22 and its head is arranged to bear against the rear surface of the standard. When this lever is turned downward to the position shown

in Fig. 1 the yoke will be drawn rearwardly and thus move the jaw 14 toward the jaw 13 to clamp the inserted tooth, while upon an upward movement of said lever to a horizontal position the strain upon the movable jaw will relax and said jaw will spring outward to normal position by its spring action, thus releasing the tooth.

It will be seen from the foregoing description that the invention provides a simple, inexpensive and convenient construction of device for the purpose described. The particular form of the support employed is not essential, as any other suitable means for supporting and operating the clamp may be employed. The clamp alone may be used in conjunction with an ordinary vise for the purpose described, it being simply necessary to insert said clamp between the jaws of the vise and apply the pressure thereof to close the jaws 13 and 14 to clamp the tooth, the retraction of the movable jaw of the vise permitting the jaw 14 of the clamp to move outward and release the tooth after it has been subjected to the desired treatment. The essential part of my invention therefore con-

sists in the peculiar construction of the clamp, which is accordingly not limited for use in connection with a support and operating means of the character disclosed, although the complete apparatus as illustrated may be constructed and sold as well as individual clamps for use in connection with vises.

Having thus fully described the invention, what is claimed as new is:—

A saw tooth holder embodying a supporting upright, a clamping plate slotted to provide clamping jaws and having means to rest upon and movably engage said upright, a yoke embracing the jaws and upright and holding said clamping plate in connection therewith, and means supported by the yoke and engaging the upright for moving the former transversely of the latter, thereby actuating the clamping jaws.

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

WILLIAM B. SANDERS.

Witnesses:

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A. R. BLACKWELL.