

(Model.)

W. T. ANDERSON.

WISE.

No. 287,993.

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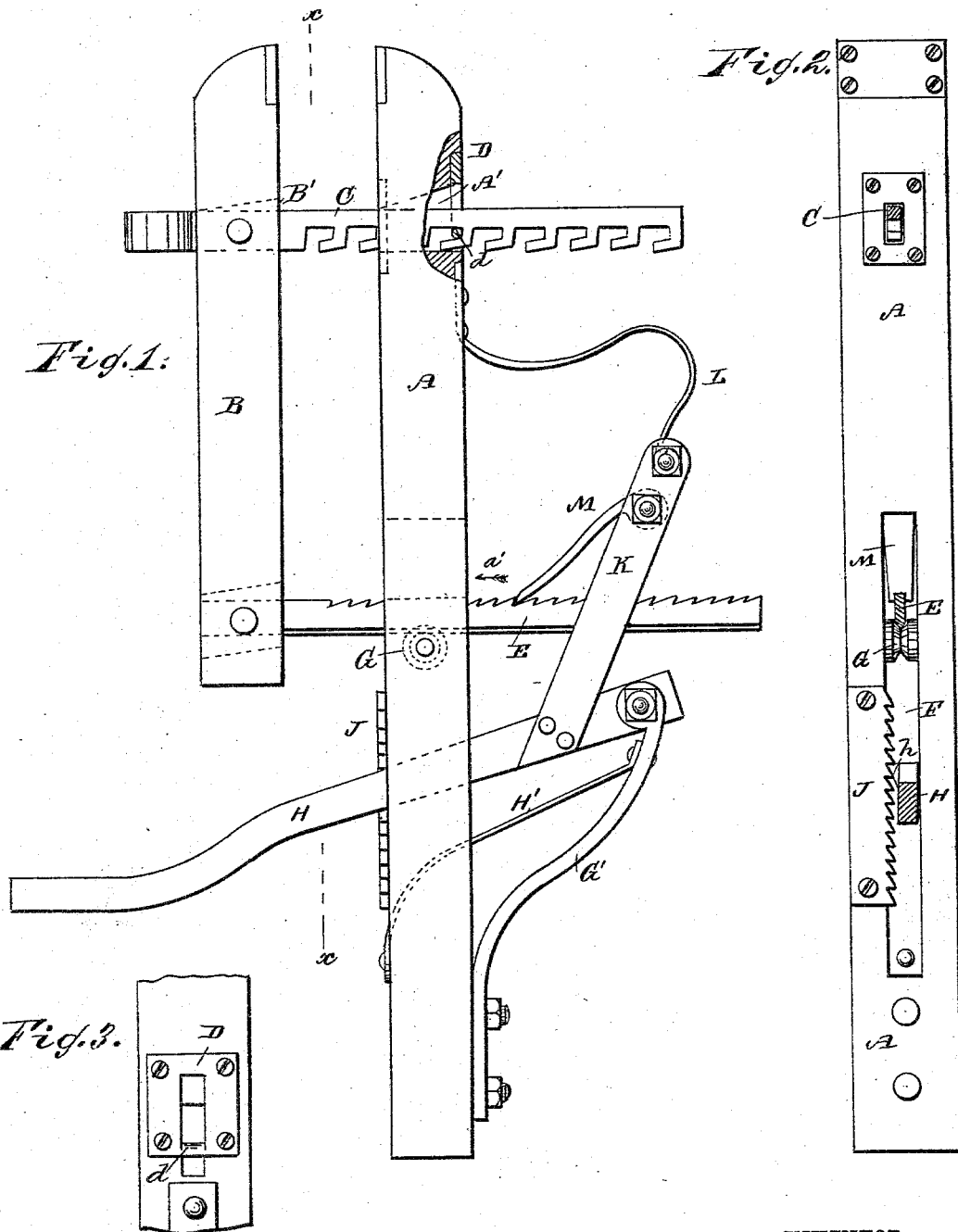


Fig. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## WISE.

SPECIFICATION forming part of Letters Patent No. 287,993, dated November 6, 1883.

Application filed September 10, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. ANDERSON, of Rock Hill, York county, South Carolina, have invented a new and Improved Vise, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved vise which is simple in construction and can be adjusted very easily and rapidly.

The invention consists of the hereinafter described and claimed combination and arrangement of parts.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal side elevation of my improved vise, parts being broken out. Fig. 2 is a front elevation of the same, parts being shown in section on the line *x x*, Fig. 1; and Fig. 3 is an enlarged detail view of a part of the vise.

The vise is constructed with two vertical jaws, A and B, each of which is provided, near the upper end, with a vertical slot, A' and B, respectively. A bar, C, provided with hook-teeth on its bottom edge, is pivoted in the slot B' of the jaw B, and passes through the slot A' in the jaw A, the teeth of the bar C projecting toward the jaw B.

On the outer surface of the jaw A, a slotted plate, D, is secured over the slot A', on the bottom cross-piece, *d*, of which plate the hook-teeth are adapted to catch. A bar, E, having teeth in its upper edge, and having a beveled bottom edge, is pivoted to the lower end of the jaw B, and passes through a vertical slot, F, in the jaw A, in the upper end of which slot F a grooved roller, G, is pivoted, on which the beveled edge of the bar E rests.

An arm, G', secured to the lower end of the jaw A, projects outward and upward, and to the upper end of the said arm a lever, H, is pivoted, which passes through the slot F, and can be locked in position by engaging its tooth *h* with a ratchet-plate, J, having downwardly-projecting teeth, which plate-ratchet is secured to the jaw A at the edges of the slot F. The arm G' is braced by a brace, H'.

One or two arms, K, project upward from the lever H a short distance from the fulcrum, and to the upper end of the said arm or arms a spring, L, is fastened, which is also fastened to the jaw A. A pawl, M, pivoted to the arm or arms K, engages with the teeth of the bar E.

The operation is as follows: The object to be held is placed between the jaws, and one of the hook-teeth of the bar C is engaged with the bottom piece of the plate D to hold the jaws the desired distance apart. If the lever H is pressed downward, the pawl M will be moved in the direction of the arrow *a'*, thereby moving the toothed bar E in a like direction, and causing the lower ends of the jaws to be separated, whereby their upper ends will be pressed together, and the object will be held firmly between the jaws. The lever H can be locked in place on the toothed or ratchet plate J. The spring L holds the ends of the arms K, and also assists in raising the lever H when the same is released.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a vise, the combination, with the jaws, one of which is connected to a lower or an operating rack, of the upper rack having hooked teeth on its under side, and pivoted within a slot of one jaw, and extending through a second slot, and engaged by a cross piece or bar of the other jaw, substantially as and for the purpose set forth.

2. In a vise, the combination, with the jaws, of the upper rack having teeth on its under side, and pivoted to one jaw, and engaging with a cross piece or bar of the other jaw, the lower or operating rack, pivoted to one jaw and extending through the other jaw upon a suitable bearing, and the lever with its outer end pivoted to a support of one jaw, and having an arm located inward from the pivotal point of the lever, and provided with a pawl which engages the lower rack, said lever-arm also having a spring fixed to its upper end and to one of the jaws, substantially as and for the purpose set forth.

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Witnesses:

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