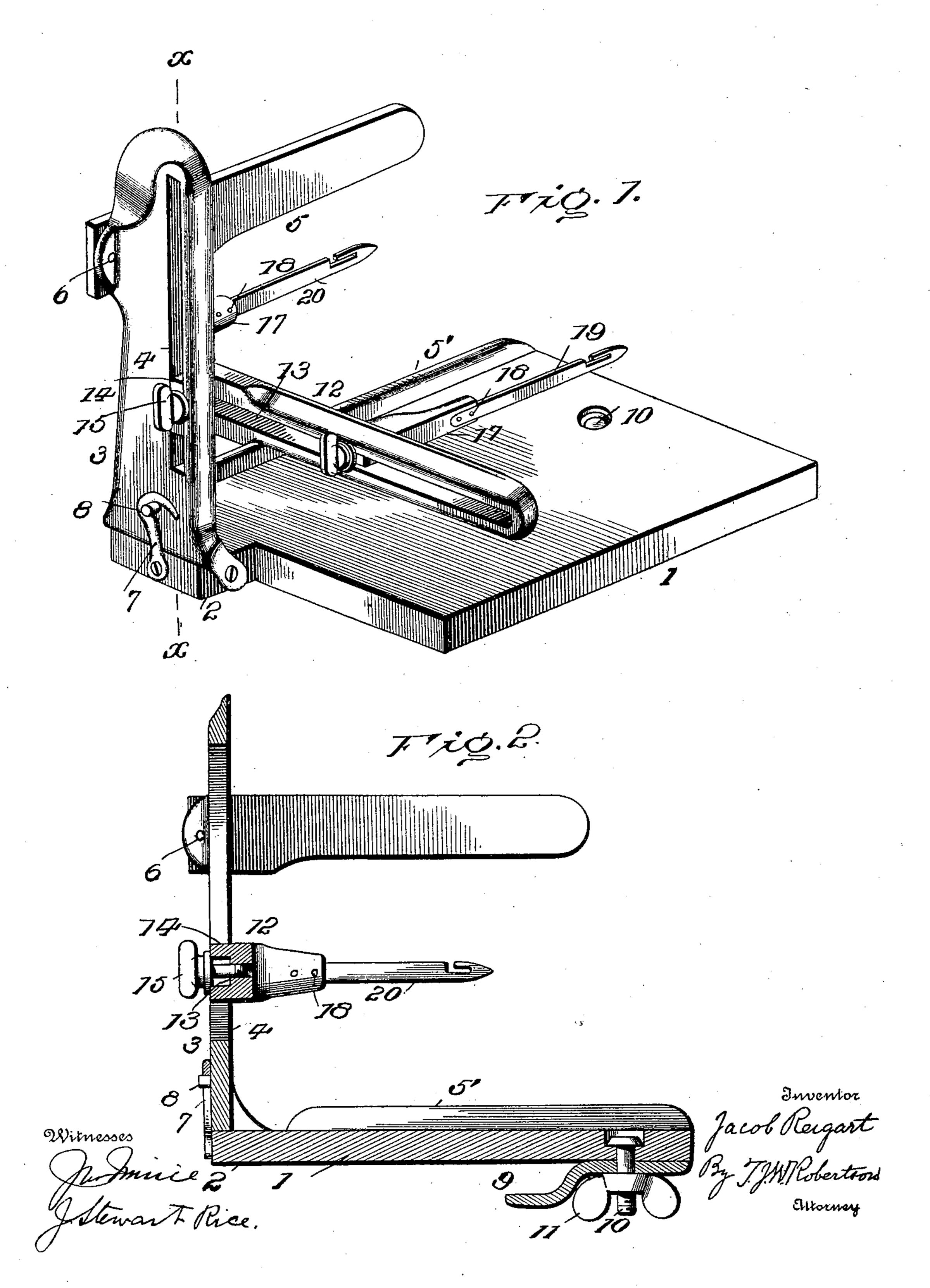
J. REIGART.

MACHINE FOR ATTACHING STRINGS TO BOXES.

(Application filed May 18, 1899.)

(No Model.)



United States Patent Office.

JACOB REIGART, OF OBERLIN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES S. BOLL, OF HARRISBURG, PENNSYLVANIA.

MACHINE FOR ATTACHING STRINGS TO BOXES.

SPECIFICATION forming part of Letters Patent No. 631,819, dated August 29, 1899.

Application filed May 18, 1899. Serial No. 717,361. (No model.)

To all whom it may concern:

Be it known that I, JACOB REIGART, a citizen of the United States, residing at Oberlin, in the county of Dauphin, State of Pennsylvania, have invented a certain new and useful Improvement in Machines for Attaching Strings to Boxes, of which the following is a specification, reference being had to the accompanying drawings.

apparatus by which strings may be easily and rapidly inserted in the bottoms of boxes; and the invention consists in the construction hereinafter more particularly described and then definitely claimed at the end hereof.

In the accompanying drawings, Figure 1 is a perspective view of an apparatus constructed according to my invention. Fig. 2 is a vertical section of the same on the line x x on Fig. 1.

Referring now to the details of construction by numerals, 1 indicates the base, preferably of wood and having a projecting portion at 2, to which is pivoted a standard 3, provided with a slot 4 and a guide 5, attached thereto by screws 6. Another guide 5' is secured to the base.

At 7 is shown a pivoted hook, which when hooked over a pin 8 on the standard 3 will 30 retain the latter in a vertical position, but when unhooked said standard may be folded down, so as to occupy less space when not in use.

Beneath the base is a clip 9, held by a screw 35 10 and wing-nut 11, by which the base may be securely clamped to a table or bench.

Secured to the standard is a needle-bar 12, having a slot 13 and lugs 14, which last fit in the slot 4, so as to keep the bar substantially 40 horizontal. At 15 is shown a thumb-screw which screws into a threaded hole between the lugs 14 to hold the bar rigidly in place at any desired height. At right angles to the bar 12 is an arm 17, to which is secured by rivets 18 or any convenient means one of the hooked needles 19. A second needle is secured in a similar manner to a movable arm 20, which is provided with lugs and a screw substantially like those used for securing the needle-bar to the standard, so that this needle may be adjusted laterally in the slot 13.

When in use, the base is clamped onto a table or bench and the needles properly ad-

justed both as to the height and distance apart according to the size of the box to be 55 acted upon. The bottom of the box is then pressed against the needles and the latter forced through, when the tying-string is laid in the hooks of the needles and the box pulled off. This completes the operation, and the 60 string is left in such position that the ends can be passed over the lid of the box and tied.

Although I show a base to which the standard is attached, it is evident that the other parts may be used without it by attaching the 65 standard to a table or bench.

What I claim as new is—

1. In a machine for attaching strings to boxes, the combination of a standard, a needle-carrier slidingly secured thereto, and two 70 needles supported by said carrier and adapted to be held thereby at different distances apart, substantially as described.

2. In a machine for attaching strings to boxes, the combination of a standard, a slot-75 ted needle-carrier slidingly secured thereto and having one needle fixed thereto, and one needle adjustable in its slot, substantially as described.

3. In a machine for attaching strings to 80 boxes, the combination of a base, a standard rising therefrom, a horizontal bar and needles mounted on said bar, one of which is adjustable with respect to the other, substantially as described.

4. In a machine for attaching strings to boxes, the combination of the base 1, the slotted standard 3, and the needle-bar 12 adjustably arranged on the standard, and needles secured to said needle-bar, one of which 90 needles is adjustable with respect to the other, substantially as described.

5. In a machine for attaching strings to boxes, the combination of the base 1, the slotted standard 3, the needle-bar 12 slidingly 95 secured on the standard and two needles carried by the needle-bar, one of which is adjustable laterally, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 16th day of May, 1899.

JACOB REIGART.

Witnesses:
FREDERICK M. OTT,
ALFRED PAGET.