2 Sheets—Sheet 1.

# M. ROSE.

## Machine for Nailing and Clamping Picture-Frames.

No. 199,579. Patented Jan. 22, 1878.

Fig. 1.

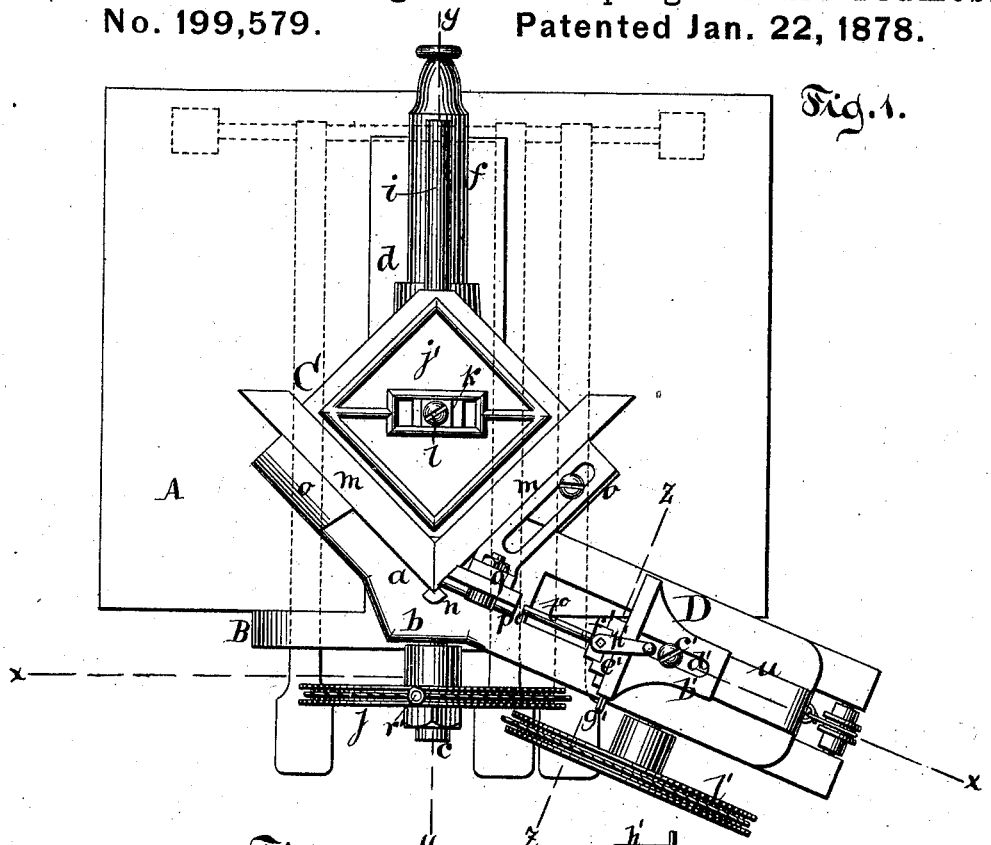
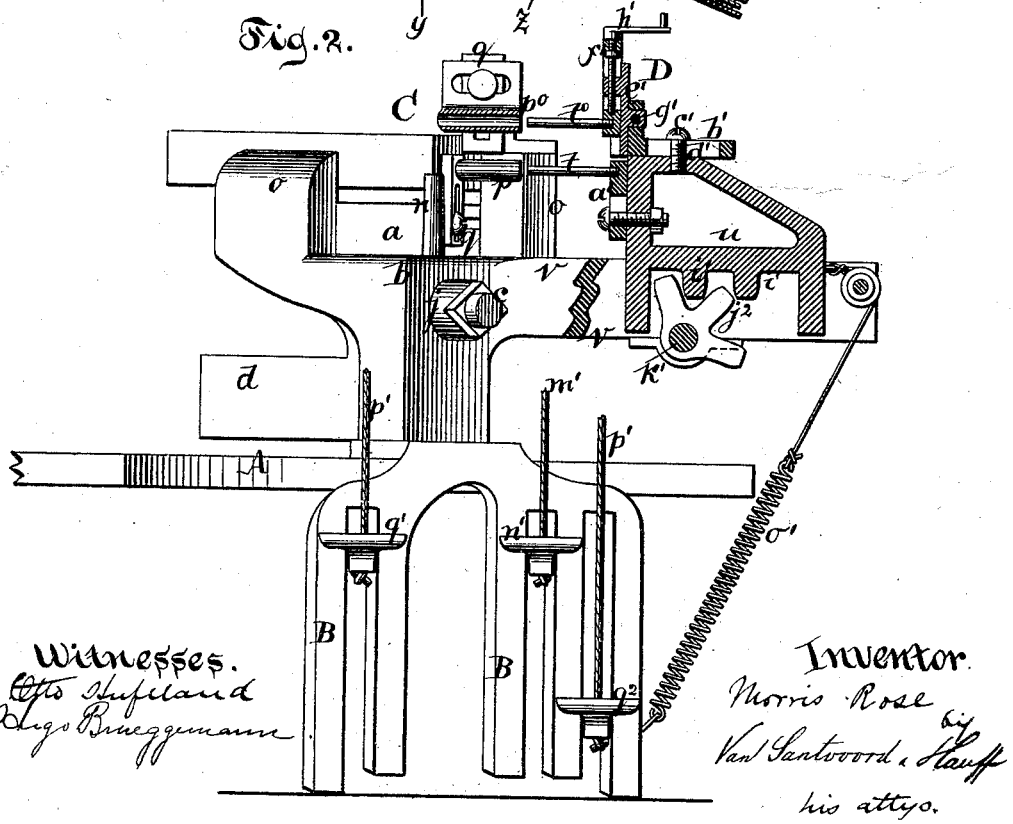



Fig. 2.




Witnesses.
Otto Hufland
Hugo Bruggemann

Inventor.
Morris Rose
by Van Santvoord & Hauff
his attys.

2 Sheets—Sheet 2.

# M. ROSE.

## Machine for Nailing and Clamping Picture-Frames.

**No. 199,579.** **Patented Jan. 22, 1878.**

Fig. 3.

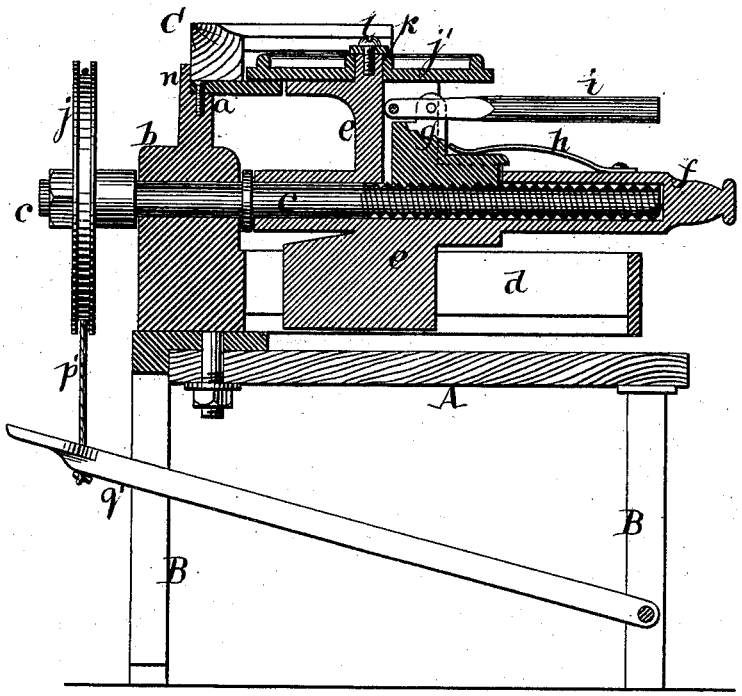
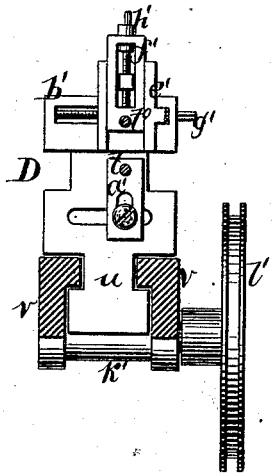



Fig. 4.




Witnesses.
Otto Hufeland.
Hugo Bruggemann

Inventor.
Morris Rose
by Van Santvoord & Hauff
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# UNITED STATES PATENT OFFICE.

MORRIS ROSE, OF NEW YORK, N. Y.

## IMPROVEMENT IN MACHINES FOR NAILING AND CLAMPING PICTURE-FRAMES.

Specification forming part of Letters Patent No. **199,579**, dated January 22, 1878; application filed December 5, 1877.

*To all whom it may concern:*

Be it known that I, MORRIS ROSE, of the city, county, and State of New York, have invented a new and Improved Machine for Clamping and Nailing Picture-Frames, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan or top view. Fig. 2 is a vertical section in the plane *x x*, Fig. 1. Fig. 3 is a similar section in the plane *y y*, Fig. 1. Fig. 4 is a similar section in the plane *z z*, Fig. 1.

Similar letters indicate corresponding parts.

This invention consists in the combination of a clamping device and of a nail-driving device. The clamping device consists of a stationary angular jaw, and of a movable jaw corresponding in form to the stationary jaw, and connected to a slide which carries a sectional nut that engages with a screw-spindle, and can be thrown out of gear with said screw-spindle by a finger-lever, so that by pressing on said finger-lever the movable jaw can be rapidly moved close up to its clamping position, and a slight turn given to the screw-spindle is sufficient to clamp firmly the article placed between the two jaws.

The nail-driving device consists of nail-receiving sockets, (one or more,) which are adjustably attached to the stationary jaw, and of nail-drivers, which are adjustably attached to a slide, to which a reciprocating motion is imparted by the combined action of a spring and foot-lever.

In the drawing, the letter A designates a table, which rests on legs B, and which forms the support for the clamping device C and the nailing device D.

The clamping device C consists of a stationary jaw, *a*, which is supported by and firmly connected to a head, *b*, that forms the bearing for a screw-spindle, *c*, and from which extends a guide, *d*, in which the slide *e* moves. The screw-spindle turns loosely in the head *b;* but it is prevented from moving therein in the direction of its length, and its free end extends into and is guided by a shell, *f*, secured to the slide *e*. Into this shell is fitted a sectional nut, *g*, (see Fig. 3,) which is depressed by a spring, *h*, and which can be raised by a finger-lever, *i*.

A hand-wheel, *j*, serves to turn the screw-spindle. When the nut *g* is raised out of gear with the screw-spindle the slide *e* can be freely moved toward and from the stationary jaw *a*. On the top of the slide *e* is situated the movable jaw $j^1$, which is secured in its position by a lug, *k*, and set-screw *l*. By releasing this set-screw the movable jaw can be taken off and replaced by another of different form.

By means of this clamping device I am enabled to adjust the article to be clamped on or against the movable jaw, bring the movable jaw rapidly close up against said article by raising the nut *g*, and by dropping the nut in gear with the screw-spindle, and giving a slight turn to the hand-wheel *j*, the article is firmly clamped between the two jaws.

By changing the form of the jaw my clamping device is applicable for articles of various forms or shapes.

The stationary jaw *a*, which I use in my machine, consists of a platform for supporting the frame-pieces *m m*, Fig. 1, a corner lug, *n*, and two lateral lugs, *o*, all of which are firmly secured to or cast solid with the head *b*.

The nail-driving device consists of one or more sockets, *p* $p^o$, two being shown in the drawing, which are secured by means of brackets *q* to the head *b*, said brackets being secured in position by set-screws *r*, which extend through slots *s*, so that the sockets can be adjusted to suit the size of the frame-pieces to be nailed. The socket $p^o$ is attached to its bracket by a set-screw passing through a slot, so that an additional adjustment is provided for this socket.

Each of the sockets *p* $p^o$ co-operates with a nail-driver, *t* $t^o$. These nail-drivers are carried by a slide, *u*, which moves in guideways *v*, formed in an arm extending from the head *b*. The nail-driver *t* is secured to a bracket, *a'*, which can be adjusted vertically and laterally, so that said nail-driver can be readily brought in line with the socket *p*. The nail-driver $t^o$ is secured to a bracket, *b'*, which is secured to the slide *u* by a set-screw, *c'*, passing through a slot, *d'*, so that it can be moved in and out, and also turned, as may be required. The bracket *b'* carries two slides, *e' f'*, one of which is adjustable in a horizontal direction by a screw-spindle, *g'*, while the other is adjustable in a vertical direction by a screw-spindle, *h'*.

By these means the nail-driver $t^o$ can always

be brought in line with its socket $p^o$, and both the nail-drivers and their sockets can be readily adjusted for frame-pieces of different sizes.

The slide $u$ is provided on its under surface with cogs $i'$, which engage with a pinion, $j^2$, mounted on a shaft, $k'$, which has its bearings under the guideways $v$. On this shaft is mounted a wheel, $l'$, which connects, by a rope or chain, $m'$, with a foot-lever, $n'$. The slide $u$ is connected to a spring, $o'$, which has a tendency to pull the same back to the position shown in Figs. 1 and 2. By stepping on the foot-lever $n'$ the slide $u$ is caused to move toward the stationary jaw $a$.

The hand-wheel $j$, which is mounted on the screw-spindle, $c$ is connected, by a rope or chain, $p'$, with two foot-levers, $q^1$ $q^2$, the rope or chain being fastened to the wheel $j$ by a pin, $r'$, which can be adjusted in different holes provided for its reception in the circumference of the wheel.

The object of this arrangement is to enable the workman to operate the clamping device without using his hands.

The movable jaw $j^1$ is moved up to such a distance from the stationary jaw $a$ that the frame-pieces to be nailed can be freely introduced, and after these frame-pieces have been brought in the position shown in Fig. 1 the workman steps on the foot-lever $q^2$, thereby turning the screw-spindle $c$, so as to clamp the frame-pieces tightly between the jaws; then he steps on the foot-lever $n'$, and the nails, which have been previously introduced into the sockets $p$ $p^o$, are driven into the frame-pieces, so as to unite them firmly at the corners.

It will be readily seen that by these means frame-pieces of any size can be readily secured together without the least danger of injuring the molding or the faces of said frame-pieces.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a machine for nailing picture-frames, of a clamping device, consisting of a head, $b$, a fixed jaw, $a$, and movable jaw $j^1$, of lateral nail-receiving sockets, (one or more,) attached to the head $b$ of the clamp by slotted plates adapted to be adjusted both vertically and laterally, and nail-drivers (one or more) attached to a horizontal slide, D, by slotted plates adapted to be adjusted both vertically and laterally, all substantially as shown and described.

2. The combination, with a stationary jaw, $a$, of a movable jaw, $j^1$, secured to a slide, $e$, a screw-spindle, $c$, which turns in the head supporting the stationary jaw, and extends into a shell secured to the slide $e$, and a sectional nut, $g$, which engages with the screw-spindle, all combined and adapted to operate substantially as set forth.

3. The combination, with a clamping device, adjustable nail-receiving sockets, (one or more,) adjustable nail-drivers, (one or more,) a slide having cogs on its under side, adapted to engage a pinion to operate the nail-drivers, and independent foot-levers connected with the clamping device, and the slide carrying the nail-drivers, substantially as and for the purpose described.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 28th day of November, 1877.

MORRIS ROSE. [L. S.]

Witnesses:
W. HAUFF,
CHAS. WAHLERS.