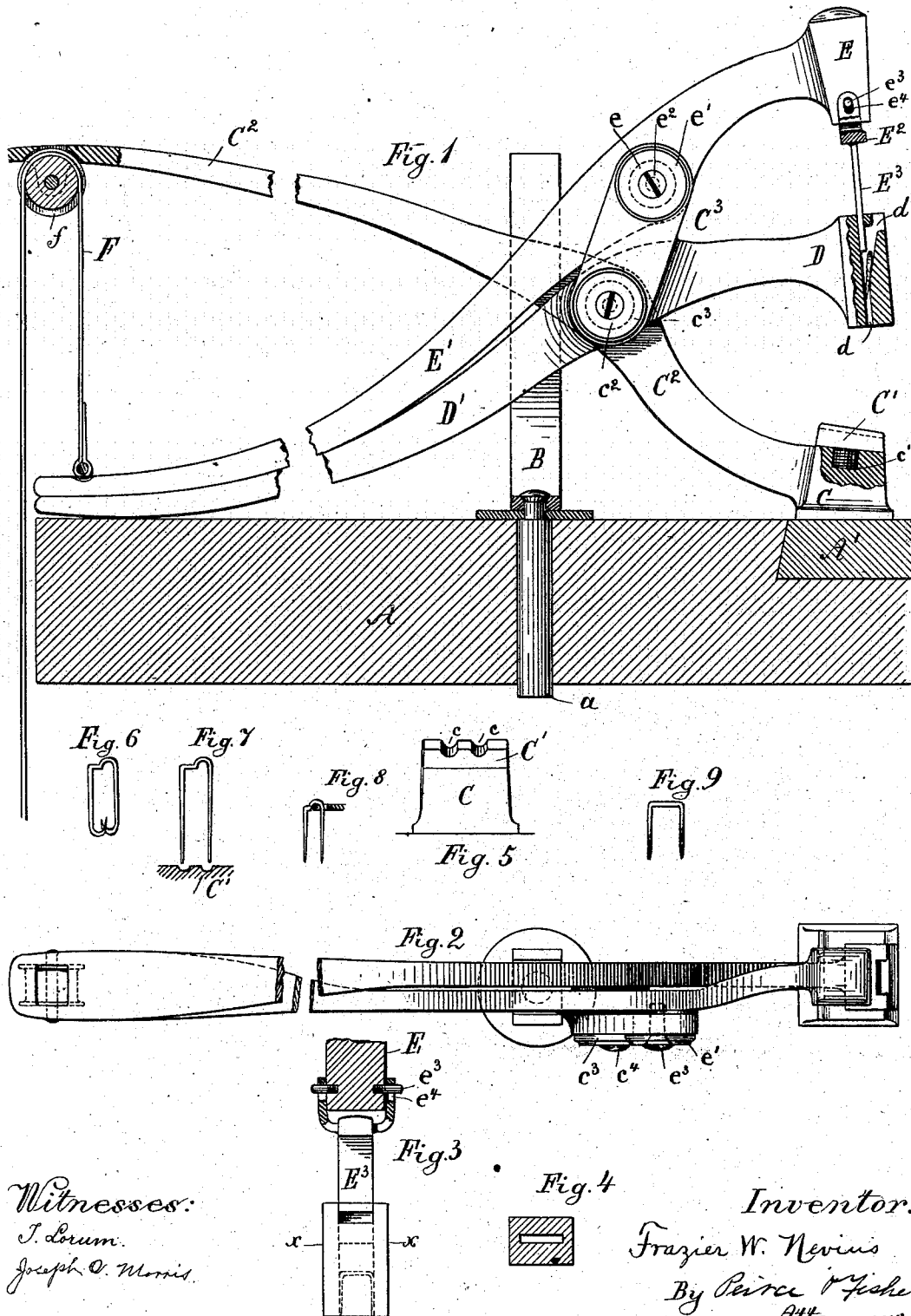


(No Model.)

F. W. NEVIUS.
TOOL FOR DRIVING STAPLES.

No. 292,842.

Patented Feb. 5, 1884.



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UNITED STATES PATENT OFFICE.

FRAZIER W. NEVIUS, OF DECATUR, ILLINOIS.

TOOL FOR DRIVING STAPLES.

SPECIFICATION forming part of Letters Patent No. 292,842, dated February 5, 1884.

Application filed July 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRAZIER W. NEVIUS, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented certain new and useful Improvements in Tools for Fastening Staples, of which I do declare the following to be a full, clear, and exact description, reference being had to accompanying drawings, forming part of this specification.

Figure 1 is a view in side elevation of my improved staple-fastening device, parts being shown in section for the purpose of better illustration. Fig. 2 is a plan view of the device. Fig. 3 is a detail view of the guide and driving jaws, the former being shown in vertical transverse section. Fig. 4 is a sectional view, in detail, through the lower portion of the guide and clamping jaw. Fig. 5 is an end view, in detail, of the clinching-jaw. Figs. 6, 7, 8, and 9 are views of staples in different positions.

The purpose of my present invention is to provide an improved instrument whereby staples may be driven through objects and clinched, so that the parts of such objects may be firmly held together or articles may be securely attached thereto. The instrument herein shown and described, while capable of a variety of uses, is particularly adapted for driving and clinching staples in articles which are soft or padded—such, for example, as horse-collars—to which it may be desired to make some attachment, and which must be firmly compressed before the staple can be accurately driven. This purpose of my invention I have accomplished by the construction of the instrument hereinafter described, illustrated in the accompanying drawings, and particularly defined as to its novel features in the claims at the end of this specification.

A designates a suitable base or rest, upon which is held, by means of the swivel-pin *a*, the yoke-shaped guide B, resting upon a washer, *b*, the function of this guide being to retain the jaws of the instrument in proper vertical position, while allowing freedom of movement.

The jaw C, which I designate the "clinching-jaw," rests upon the block A' of the base, and upon its top carries the clinching-block C', which has upon its upper surface the hemispherical grooves *c*, and is connected to the jaw by means of the screw-shank *c'*, which en-

ters a corresponding perforation therein. Upon the shank or handle C' of the clinching-jaw is formed a journal-stud, *c''*, (shown in dotted lines,) on which is held, by the washer *c''* and set-screw *c''*, the shank or handle of the guide and compressing jaw D, as clearly shown in Fig. 1. This jaw D is provided with the guide-channel *d*, extending through the jaw, with which channel connects the feed-opening *d'*, through which the staples to be driven may be inserted.

An extension, C³, upon and integral with the handle D', is perforated near its top to receive a journal-stud, *e*, (shown in dotted lines,) formed upon the side of the shank or handle E' of the driving-jaw E, said handle E' being retained upon the stud by means of the washer *e'* and set-screw *e''*. The driving-jaw is provided, as shown, with the yoke E², carrying the driving-plate E³, said yoke being connected to the driving-jaw by means of the pins *e³*, which enter the oblong slots *e⁴* of the yoke. The driving-plate is of a size adapting it to enter the channel *d* of the guide-jaw D, and the swivel-yoke E² insures its straight movement in the channel, while the driving-jaw moves upon a curve. By providing the oblong slots *e⁴* the end of the driving-jaw is allowed to contact with the yoke, and thus secure a firm stroke.

To the end of the handle E' is connected, as shown at *e⁵*, the treadle-strap F, which passes over the pulley *f*, journaled in suitable lugs (shown in dotted lines) on the end of the handle C' of the clinching-jaw C.

In Figs. 6, 7, and 8 is shown a form of staple used when an article, as seen in Fig. 8, is to be attached to the object through which the staple is to be driven, and in Fig. 9 is shown the ordinary form of clamping-staple.

The manner of using the improved instrument is as follows: The object through which the staple is to be driven—as, for example, a padded horse-collar—is placed upon the clinching-jaw C and is firmly held thereon and compressed by means of the guide and compressing jaw D. A staple is next inserted into the guide-channel *d*, and then by means of the lever-strap F, the driving-jaw E is brought into action, causing the plate E³ to force the staple through the collar. As the ends of the staple strike the curved sides of the

grooves *c* they will be bent upward thereby, as shown in Fig. 6, and will securely clinch the staple and prevent its withdrawal. By making the clinching-plate removable, as shown, it may be formed of steel, and plates having grooves adapted to different sizes of staples may be employed.

Not wishing to limit myself to the uses to which the instrument may be applied, nor to the precise arrangement or construction of details shown, since these may be varied without departing from the spirit of the invention, and having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a staple-fastening instrument, the combination of a driving-jaw, a clinching-jaw, a compressing-jaw, and means for forcibly depressing said compressing-jaw, substantially as described.

2. In a staple-fastening instrument, the combination of a driving-jaw, a clinching-jaw, and a compressing-jaw having guide-channel therein, and having means for forcibly depressing said compressing-jaw, substantially as described.

3. In a staple-fastening instrument, the combination, with the clinching-jaw and the driving-jaw having the driving-plate, of the compressing-jaw having a feed-channel extending through the same, and a delivery-channel for staples leading into said feed-channel, substantially as described.

4. The combination, with a clinching-jaw and a compressing-jaw, of a driving-jaw having a driving-plate swiveled thereto, substantially as described.

5. The combination, with the clinching-jaw, the compressing-jaw, and the driving-jaw and handles for operating said jaws, of the strap *F* and pulley *f*, substantially as described.

6. The combination, with the several jaws of the instrument, of the swiveled guide for sustaining said jaws in position, substantially as described.

In testimony whereof I have hereunto set my hand this 3d day of July, A. D. 1883.

FRAZIER W. NEVIUS.

In presence of—

GEO. P. FISHER, Jr.,

JAMES H. PEIRCE.