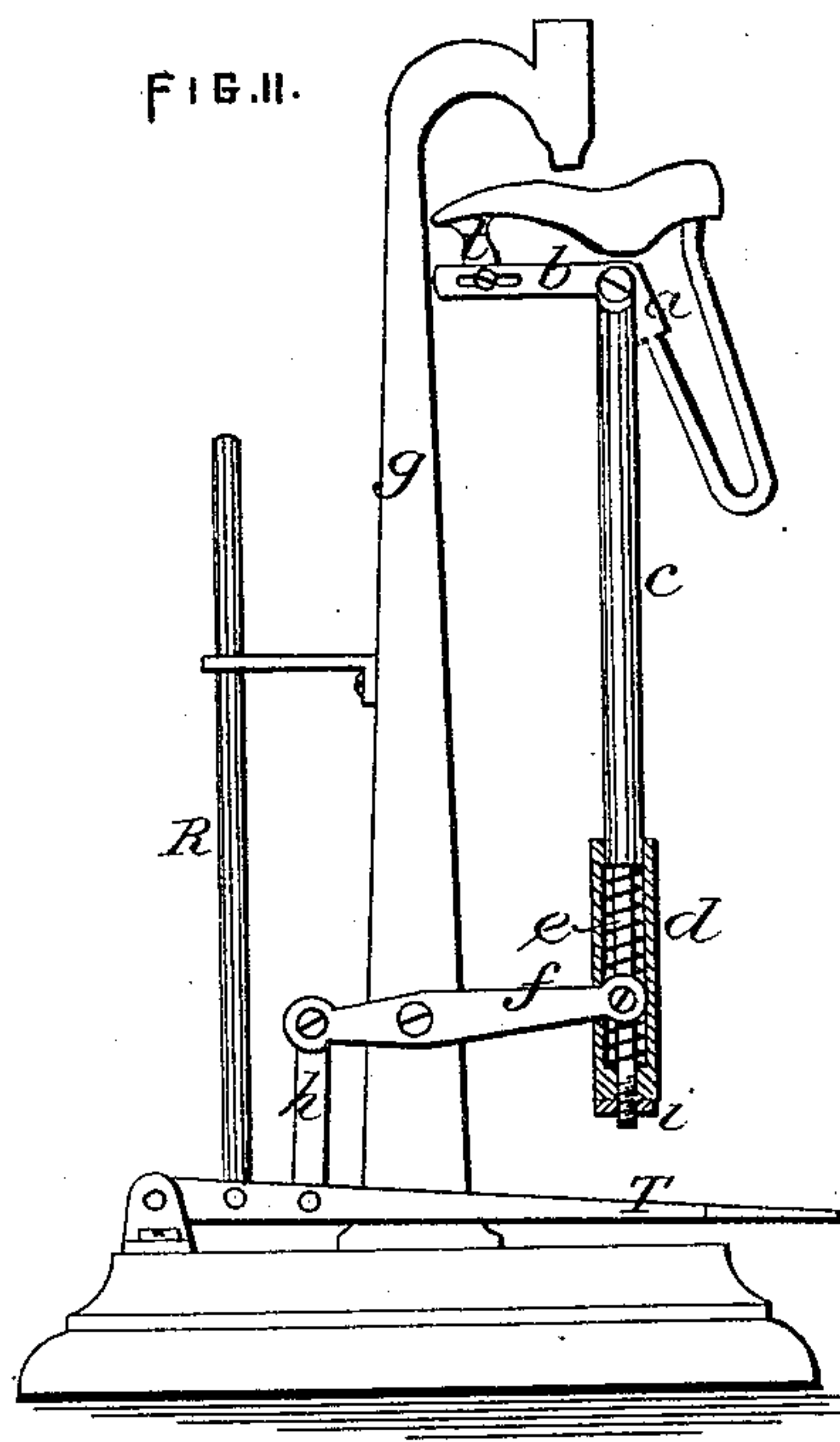
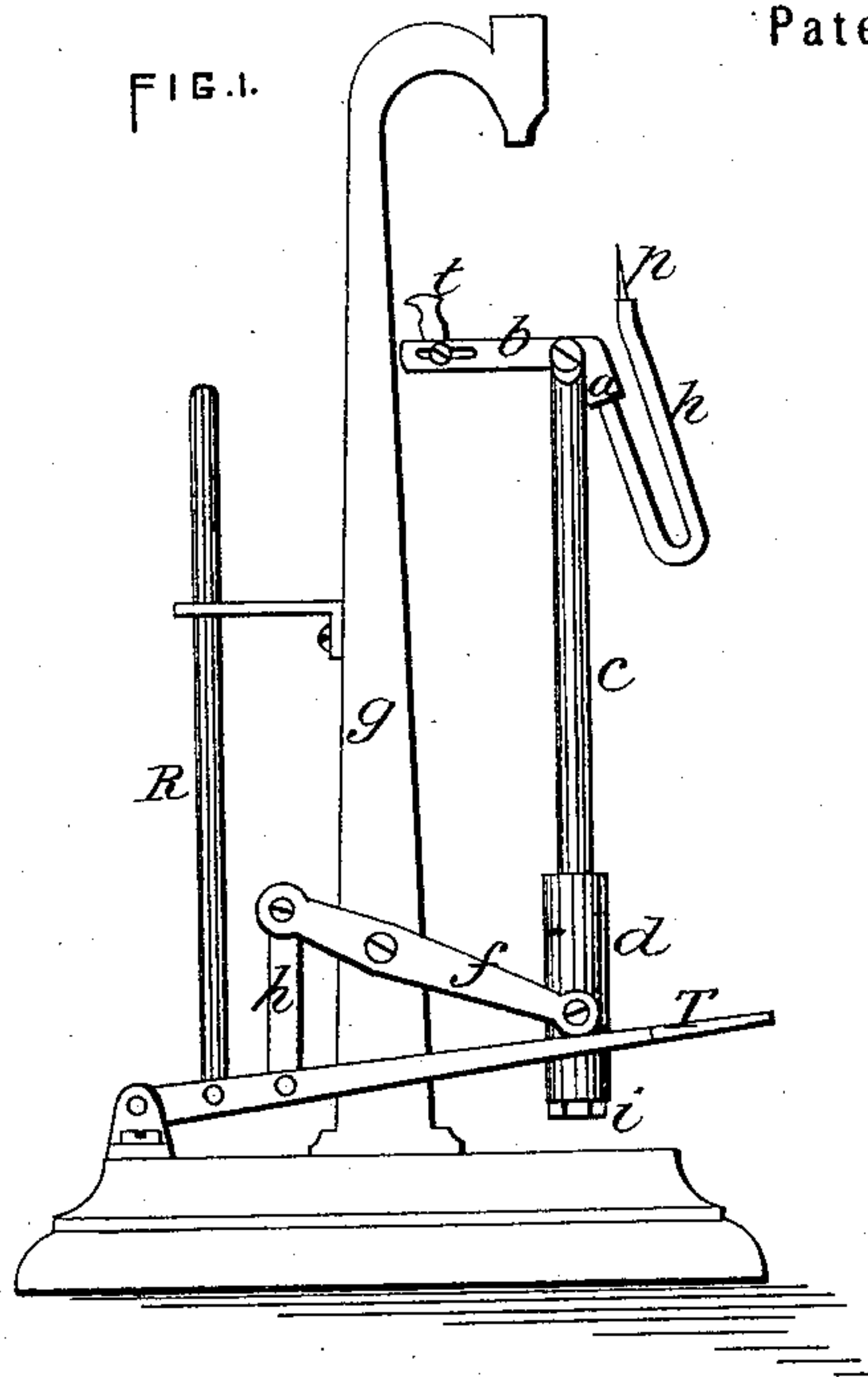


L. GODDU.
Jack-Attachment for Nailing-Machines for Boots
and Shoes.

No. 163,475.

Patented May 18, 1875.



WITNESSES.

F. B. Townsend.
J. A. Rutherford

INVENTOR.

Louis Goddu
By Johnson and Johnson,
his Attorneys

UNITED STATES PATENT OFFICE.

LOUIS GODDU, OF WINCHESTER, ASSIGNOR TO AMERICAN CABLE-SCREW-WIRE COMPANY, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN JACK-ATTACHMENTS FOR NAILING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **163,475**, dated May 18, 1875; application filed April 23, 1875.

CASE B.

To all whom it may concern:

Be it known that I, LOUIS GODDU, of Winchester, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Jack-Attachment for Shoe Nailing and Tacking Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

The invention herein claimed relates primarily to machines for temporarily tacking the soles to the uppers preparatory to uniting these parts either by sewing or nailing, but can be made very serviceable as a tacker, although its chief merit lies in its utility as a tacker and for lasting.

The invention consists in the construction and combination of the several parts of the jack attachment with the treadle, as will be more specifically described, and pointed out in the claim. An essential feature, however, is the construction of the work-support with a spring-branch carrying the heel-pin, and its combination with the toe-support, whereby the work, when pinned upon the support, is automatically sprung into a firm position upon the toe-support, and all separate holding appliances for this purpose dispensed with.

The devices connecting the treadle with the jack are also united and combined so as to obtain the best effect in elevating the jack by the least movement of the treadle, as the jack is mounted upon the long end of a pivoted arm, and the treadle united to the short end thereof, so that a comparatively slight descent of the treadle will elevate the jack to its proper position under the nose.

In the particular construction and operation of the machine it is substantially such as that patented to me February 14, 1871, No. 111,837, and my present improvements are especially applicable to such organized machine.

In the accompanying drawings, Figure 1 represents an elevation of so much of a tacking-machine as illustrates the application of

my improved jack attachment, which is shown in the position it occupies when the machine is at rest; and Fig. 2, a similar view, showing the jack attachment elevated in the position for receiving the action of the nail-driver.

The machine, as before stated, is, as to the feeding and cutting mechanism for the wire, the guide-tube to present the nail and the driver for inserting it may be such as shown in my patent referred to, or of any other suitable construction. I have only shown, in connection with the standard and the head of such patented machine, the special manner in which I have combined my new jack attachment with the treadle. The machine can either be operated wholly by the treadle or by power in which the treadle is the element for putting the machine in motion, and in either case the treadle *T* is connected for such purpose by a connecting-rod, *R*, with the operating devices of the head. The jack proper consists of a pivoted bar, *b*, carrying at one end an adjustable toe-support, *t*, and at the other a heel-support of peculiar form, being an elastic *U*-shaped branch from the angular end *a* of the pivoted bar *b*. The branch *h* rises above the bar and terminates in the point *p*, upon which the last is set so as to bring the heel and toe nearly on a level. It is necessary that the last should have a firm seat, and for this purpose the pin-branch of the jack has a sufficient degree of elasticity, so that when the point *p* is entered into the heel of the last the toe will fall below its support, and in bringing it up into position upon such support the heel pin-branch *h* is forced open, and causes the toe of the last to rest firmly upon its support without any holding devices, the spring in the pin-branch being ample to maintain the last solidly upon its seat. This construction of jack is new, so far as I know, to accomplish the automatic holding of the last by a spring force exerted by a downwardly-curved *U*-branch for the heel. This jack is pivoted upon the end of a rod, *c*, so as to allow it to turn freely in the line of the last, and which works in a sleeve, *d*, having a spring-cushion, *e*, of sufficient tension to resist the blow of the driver. Within this cushioned socket *d* the rod *c* is capable of a

compound movement—that is to say, a vertical yielding and a swiveling movement, which, in connection with the movement of the jack proper, gives a sort of universal adjustment to the jack, and in this way enables the operator to have perfect control over the work. The spring-cushion allows the jack to be depressed whenever the height of either the toe or heel is such as to bring them above the driver-nose, in order that either may be brought instantly in position beneath the driver, whatever the angle of the jack may be, and at all times to keep the jack up firmly to the nose. The sleeve *d* is mounted by a pivot-connection upon one end of an arm, *f*, pivoted to the standard *g*, while the rear end of such arm *f* is united by a link, *h*, to the treadle. This connection with the sleeve gives peculiar advantages in allowing the jack-carrier to swing toward and from the driver-nose, and in enabling either end of the last to be dipped down and brought under the nose. The chief feature, however, of the jointed connection of the jack-carrier with the treadle is to obtain the elevation of the jack against the nose by the same movement of the treadle by which the machine is set in motion in connection with a work-support having a universal capacity for adjustment, and in this particular the jack attachment has very great advantage over a simple vertical thrust of the work-support.

It will be observed that the connections of these parts are such as to produce the best effect by the least movement of the treadle, as the jack is mounted upon the long end of the pivoted arm *f*, and the treadle is connected to its short end, so that a comparatively slight descent of the treadle will raise the jack to its proper height under the nose. The sleeve *d* is open at both ends, and the jack-carrying rod *c* passes through it and rests upon a coiled spring, *e*, seated upon the lower end of the sleeve, so that, while the rod can be depressed through the sleeve, it is limited in its ascent

by a nut, *i*, on the lower end of said rod, to prevent the jack from being projected above a working position.

When the machine is adapted for power the rod connecting with the treadle is caused to descend and bring into action the usual friction-clutch or loose pulley; but when such machine is used by foot-power such rod is connected with and made to operate a lever to raise the driver, which, in this class of machines, is driven down by a spring inclosed within a tube of the head, or arranged and connected with the driver in any desired manner.

The following is claimed as new in jack attachments for shoe-tacking machines, namely:

1. A jack for shoe-tacking machines, having its pivoted bar-support *b*, constructed with a spring-branch, *h*, integral therewith, in combination with the toe-support *t*, whereby the work is sprung and automatically held in position for operation upon the toe-support, without separate appliances for the purpose, substantially as herein set forth.

2. The combination of the swiveling jack-support *c* and a guide-sleeve, *d*, therefor, open at both ends and provided with a spring-cushion, *e*, with a stop-nut, *i*, whereby to limit the ascent of the jack to a working position with respect to the nose, as herein set forth.

3. The combination, with the treadle of a shoe-tacking machine, of a work-supporting jack, the yielding swiveling jack-rod *c*, and its guide-sleeve *d*, with the pivoted arm *f* and the link *h*, by which a jointed flexible connection of the jack is effected with the treadle, substantially as herein set forth.

In testimony that I claim the foregoing as my own I have affixed my signature in presence of two witnesses.

LOUIS GODDU.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.