(No Model.)

C. E. CONNER.

HEEL NAILING AND SLUGGING MACHINE.

No. 470,547. Patented Mar. 8, 1892.

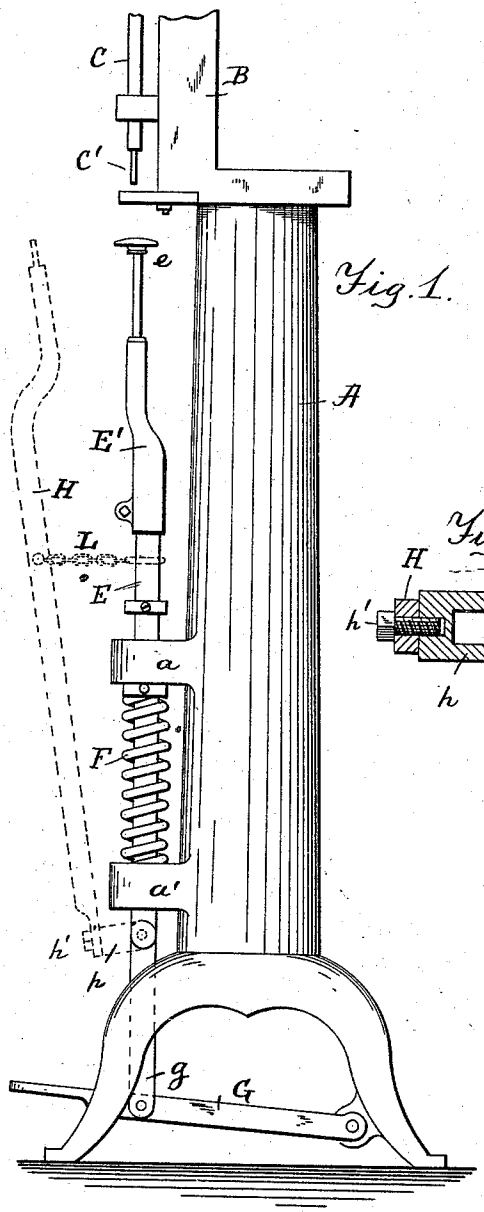

Fig. 1.

Fig. 3.

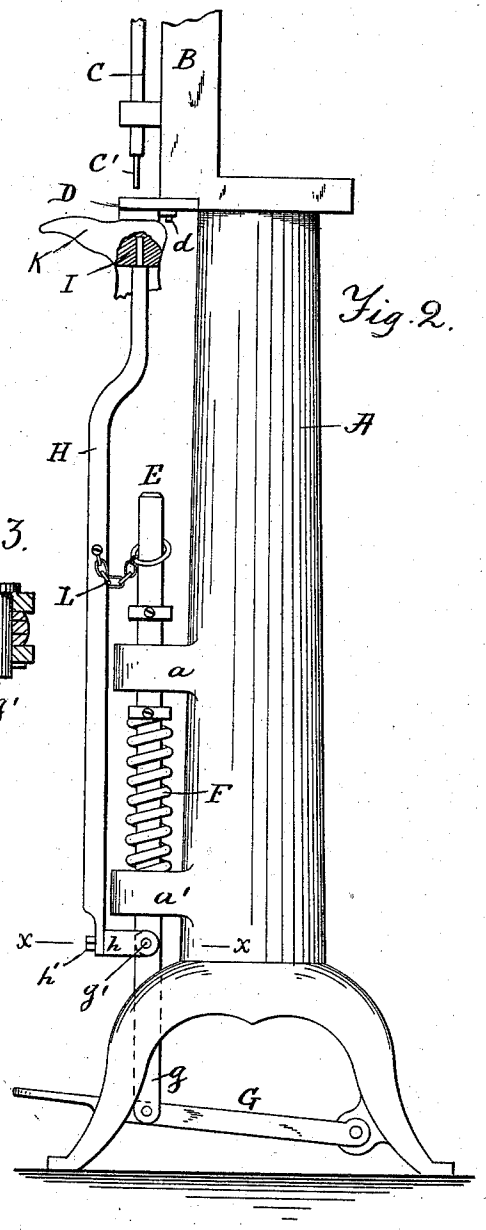

Fig. 2.

WITNESSES

William E. Bailey

Alice A. Perkins.

INVENTOR

Charles E. Conner

by Albert Andrews

his ATT'Y.

UNITED STATES PATENT OFFICE.

CHARLES E. CONNER, OF BROCKTON, MASSACHUSETTS.

HEEL NAILING AND SLUGGING MACHINE.

SPECIFICATION forming part of Letters Patent No. 470,547, dated March 8, 1892.

Application filed September 4, 1891. Serial No. 404,739. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. CONNER, a citizen of the United States, and a resident of Brockton, in the county of Plymouth and State of Massachusetts, have invented new and useful Improvements in Heel Nailing and Slugging Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in heel nailing and slugging machines.

In the art of nailing or slugging boot or shoe heels the cheaper grade of work is generally done with the last removed from the shoe, the latter being supported directly upon the upper end of the jack during the nailing or slugging operation, and by so doing a shoe manufacturer is enabled to dispense with the use of a great many lasts to be used for other purposes in the processes of making boots or shoes. A better grade of goods has its heels nailed and slugged while the boot or shoe is on a last and the latter supported on a jack specially made for such purpose. If both grades of shoes are to be made, it is therefore necessary to employ two kinds of nailing or slugging machines—namely, one having a jack upon which the boot or shoe is directly supported and another one having its jack adapted to support a boot or shoe held upon a last.

My invention is designed to obviate this difficulty; and to this end it consists in the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 represents a side elevation of a heel nailing and slugging machine having a jack for supporting an unlasted boot or shoe thereon and showing in dotted lines the auxiliary swinging last. Fig. 2 represents a similar side elevation of the heel nailing and slugging machine, showing the auxiliary jack as being used in the nailing or slugging operation; and Fig. 3 represents an enlarged cross-section on the line X X shown in Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

A represents the frame or standard of an ordinary heel nailing or slugging machine, on which B is the head, and C the vertically-movable driver-bar with its driver C′.

D is the rest-plate, against which the heel of the boot or shoe is held, and *d* is the gage, as usual.

a and *a′* are bearings or projections on the standard A, in which the jack-spindle E is guided, said spindle being normally held upward by means of a suitable spring F and depressed by means of a treadle-lever G, which is connected to the lower end of the spindle E by means of a link *g*, the upper end of which is pivoted at *g′* to said spindle E, as is common in machines of this kind.

E′ is the jack sleeve or socket, arranged upon the upper end of the spindle E and carrying the boot or shoe horn or support *e*, as usual.

In connection with the above I use an auxiliary last-jack H, the lower end of which is jointed to the lower end of the spindle E, preferably by means of a bail *h*, pivoted on the pin or bolt *g′* and a bolt or headed screw or pin *h′*, passing through a perforation in the lower end of the last-jack H and attached to the bail *h*, as shown in the drawings. Inasmuch as the bail *h* is pivoted to the jack-spindle E in such manner as to be capable of swinging in a vertical plane and the last-jack H is pivoted on the screw or pin *h′* the said last-jack H can swing outward and inward and also laterally in either direction.

I represents the last placed upon the upper end of the last-jack. H and K represent a boot or shoe held upon said last during the nailing or slugging operation.

In practice I use a chain or suitable flexible connection L between the last-jack H and spindle E or other portion of the machine, so as to prevent said last-jack from falling outward when the operator lets go his hold on it or when it is not in use.

In using the last-jack H for the purpose stated I remove the socket E′ and shoe horn or support *e* and place the lasted shoe on the said last-jack with the heel of the shoe against the rest D, as fully shown in Fig. 2.

If it is desired to use the horn or support *e* for the purpose of supporting a boot or shoe directly without the intervention or use of a last, I may, if so desired, detach the jointed

last-jack H or swing it to one side out of working position, as shown in dotted lines in Fig. 1.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. A heel nailing and slugging machine having a head B, a shoe-rest D, a driver-bar C, a vertically-sliding jack-spindle E for carrying a removable jack-sleeve E′, means for raising and lowering the jack-spindle, and a swinging auxiliary last-jack H, pivotally connected at its lower end to and rising and falling in unison with the vertically-sliding jack-spindle, substantially as described.

2. A heel nailing and slugging machine having a head B, a shoe-rest D, a driver-bar C, a vertically-sliding jack-spindle E for carrying a removable jack-sleeve E′, a spring for elevating the jack-spindle, means for depressing the latter, and a swinging auxiliary last-jack H, having a duplex pivotal connection at its lower end with the jack-spindle and rising and falling in unison therewith, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 15th day of August, A. D. 1891.

CHARLES E. CONNER.

Witnesses:
ALBAN ANDRÉN,
HUGH M. SWEENEY.