

(No Model.)

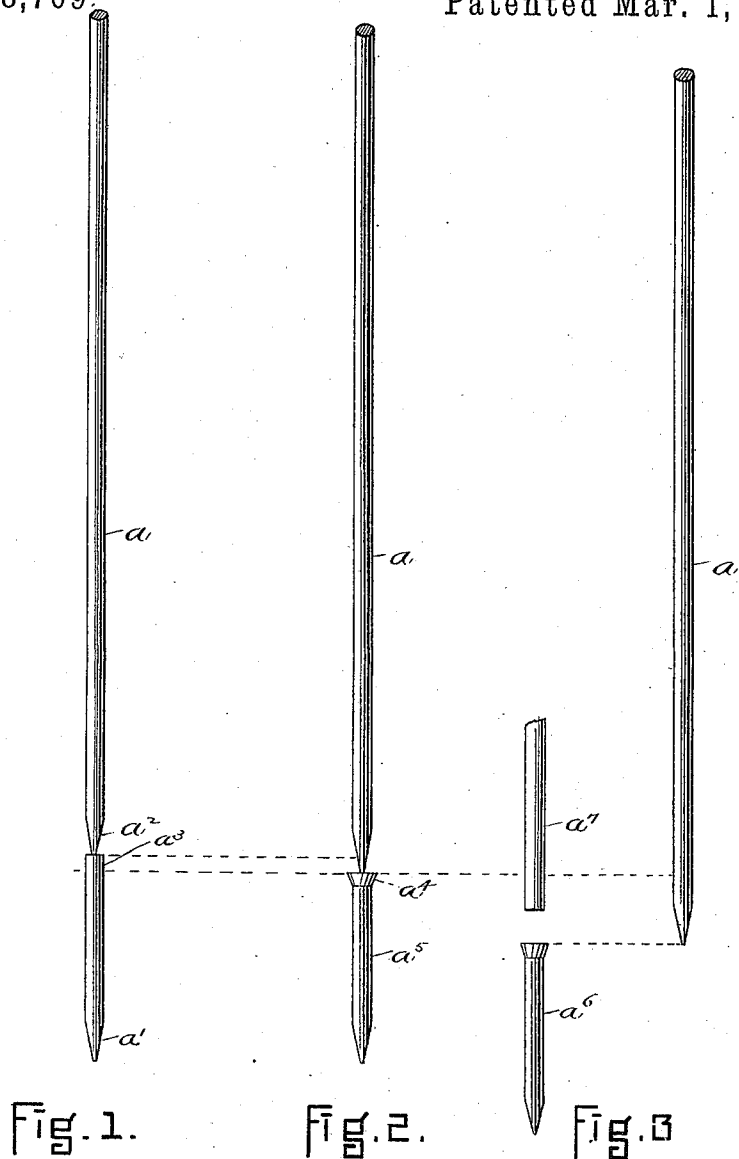
2 Sheets—Sheet 1.

H. WEEKS.

METHOD OF MAKING NAILS.

No. 358,709.

Patented Mar. 1, 1887.



WITNESSES.

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Horace Weeks
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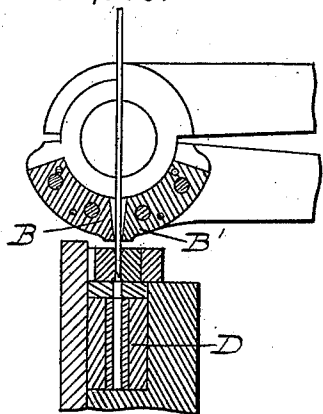


Fig. 4.

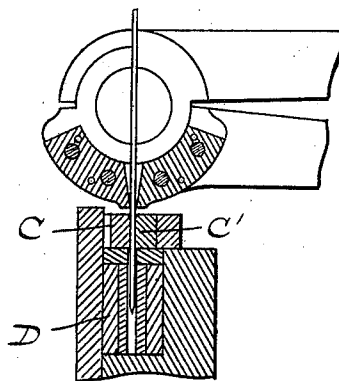


Fig. 5.

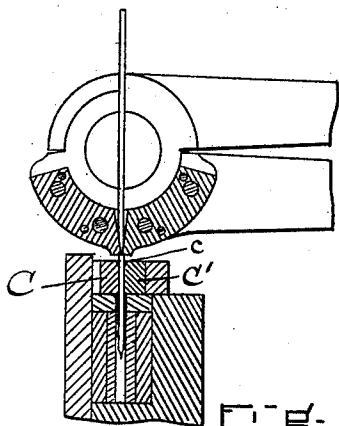


Fig. 6.

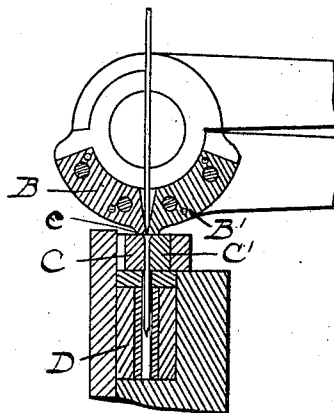


Fig. 7.

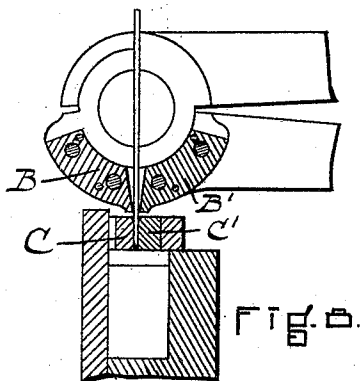


Fig. 8.

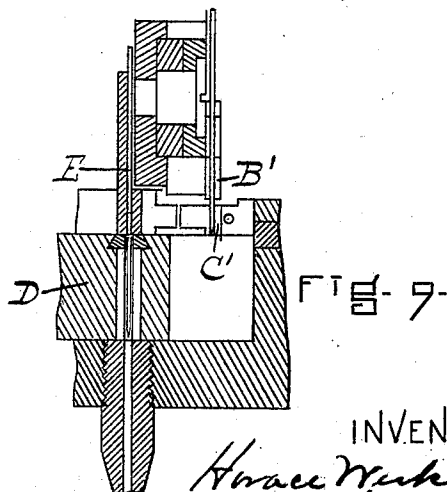


Fig. 9.

WITNESSES

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UNITED STATES PATENT OFFICE.

HORACE WEEKS, OF BOSTON, MASSACHUSETTS.

METHOD OF MAKING NAILS.

SPECIFICATION forming part of Letters Patent No. 358,709, dated March 1, 1887.

Application filed October 21, 1886. Serial No. 216,824. (No model.)

To all whom it may concern:

Be it known that I, HORACE WEEKS, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in the Method of Making Nails, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to a method of making nails for immediate use or driving, which comprises the formation upon a continuous length of wire and at the length of a headed nail from the end thereof the point of the next nail in order by compressing the metal of the wire laterally in suitable dies, and immediately thereafter forming a head to the nail previously pointed or the pointed end of the wire by upsetting in dies a section of the wire immediately adjacent to the point of the second nail, and, third, in severing the nail thus formed and transferring it to the driving devices before the point of the third nail in order is formed and the head of the next nail in order upset.

In the drawings, Figure 1 is a view in elevation showing a section of wire the end of which has been pointed and upon which has also been formed the point for the second nail in order. Fig. 2 represents the second step in the process—that is, the formation of the upset head upon the first nail-blank in order. Fig. 3 represents the headed and pointed nail-blank as completed by being severed from the pointed end of the wire and as fed to a position under a driver. Fig. 4 is a view showing the point-forming dies, the holding or grasping dies, and the transferrer, showing the wire before it is fed into the transferrer. Fig. 5 represents the same parts, the wire having been fed into the transferrer. Fig. 6 represents the same parts, the grasping-dies having been closed to form the point. Fig. 7 shows the same parts, the point-forming dies having been moved downward to the grasping-dies to form a head. Fig. 8 shows the nail as severed by the further feeding movement of the wire and the movement of the transferrer. Fig. 9 represents the nail as severed by the transferrer

and delivered by it to a position under the driver.

a represents the wire. a' represents the pointed end thereof. a^2 represents the point of the second nail, the points being successively formed by suitable dies.

a^3 represents the section of the wire which is upset to form the head, and a^4 represents the upset head.

a^5 represents the nail as shaped upon the end of the wire, but not severed therefrom, and a^6 represents the complete severed nail beneath the driver a^7 .

In practicing the method the point of the second nail is formed before the head of the first by means of dies which close upon the wire and swage the point to shape. The head of the first nail is then formed by upsetting a section of the wire between the first and second nails. The formed blank is then severed from the end of the wire and transferred and driven by a suitable transferrer and driver, and the wire is then fed and the operation of forming the point of the second nail and head of the first proceeds as before, so that there is always formed upon the end of the wire but one complete nail-blank at a time, which is severed therefrom to leave the point of the next nail-blank in order on the continuous wire.

This method of making nails is of very considerable importance in machines organized to drive fastenings singly as they are made, because it provides a sure way of supplying or feeding the nails to the driving devices.

In practicing this method I prefer to employ the point-swaging dies $B B'$, which are operated to close upon the wire and swage the point to shape, as shown in Fig. 6, and which are then moved to upset a section of the wire between them and the grasping-dies CC' , which have a head-forming cavity, c . (See Figs. 6 and 7.) The formed blank is then cut from the end of the wire and transferred by the transferrer D , and the nail is driven from the transferrer D by the driver E . (See Fig. 9.)

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The method of making headed nails from wire, consisting in forming a point upon the

wire by swaging - dies, then heading a previously-pointed section of the wire by the conjoint action of the point-swaging dies and grasping - dies, and then severing the completed nail from the wire upon a line with the upper surface of the formed head of the nail and before the head of the next nail in order is made, substantially as described.

2. The method of making headed nails from wire and feeding the same, consisting in swaging a point in the wire by suitable swaging-dies at the distance of the length of an unheaded nail-blank from the end of the wire, then forming the head upon the nail-blank be-

fore it is severed from the wire by the conjoint action of the nail-blank-grasping and head-forming dies and the point-swaging dies, then advancing the wire with the headed nail thereon to a nail-carrier, and then severing the headed nail from the wire before the next nail in order is headed by the movement of the carrier to the nail-driving devices, substantially as described.

HORACE WEEKS.

Witnesses:

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