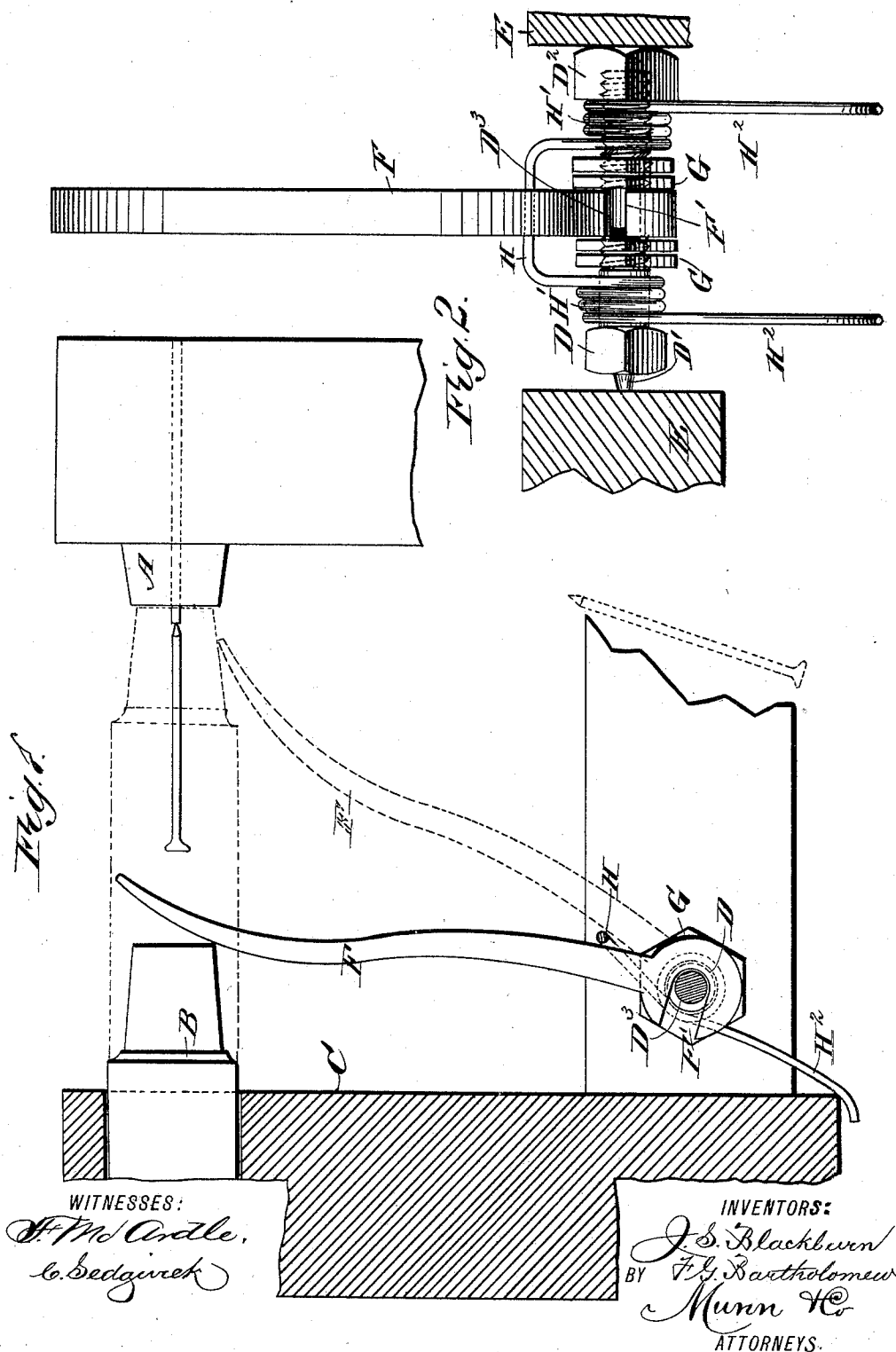


(No Model.)

J. S. BLACKBURN & F. G. BARTHOLOMEW.
NAIL MACHINE.

No. 467,362.

Patented Jan. 19, 1892.



UNITED STATES PATENT OFFICE.

JOSEPH S. BLACKBURN AND FRANK G. BARTHOLOMEW, OF SALEM, OHIO.

NAIL-MACHINE.

SPECIFICATION forming part of Letters Patent No. 467,362, dated January 19, 1892.

Application filed May 14, 1891. Serial No. 392,700. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH S. BLACKBURN and FRANK G. BARTHOLOMEW, both of Salem, in the county of Columbiana and State of Ohio, have invented new and useful Improvements in Nail-Machines, of which the following is a full, clear, and exact description.

The object of the invention is to provide certain new and useful improvements in nail-machines, whereby the nail after being formed with a head and cut by the knives is readily broken off the wire and discharged.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of the improvement, with parts in section, and Fig. 2 is a horizontal section of the same.

The nail-machine of any improved construction is provided with the usual fixed anvil or die A, on which operates the hammer B, fitted to slide in the usual manner in the frame C of the nail-machine.

A bolt D is arranged between two beams E of the main frame C, the said bolt extending longitudinally below the end of the hammer B, as is plainly shown in Fig. 1. The bolt D is formed at one end with a point D', adapted to engage one of the beams, the other end of the bolt being threaded, and on this threaded end screws a nut D², adapted to abut against the other beam E, as is plainly shown in Fig. 2, so that the bolt is securely held in place by the two beams. The middle of the bolt D is formed with the pivot part D³ forming the fulcrum for an arm F, extending upward into the path of the hammer B, as is plainly shown in Fig. 1. The arm F is formed on its pivot end with a slot F' for being readily slipped over the pivot part D³ of the bolt D. The sidewise motion of the arm F is prevented by nuts G, screwing on the bolt at either side of the said arm, as is plainly shown in Fig. 2. One side of the arm F is engaged by the mid-

dle U-shaped part of the spring H, formed with coils H', arranged around the bolt D, the ends of the coils being formed into the parts H², abutting against the under side of the beams of the main frame C, as is plainly shown in Fig. 1. The spring H thus has the tendency to hold the arm F in contact with the pivot part D³ of the bolt D, at the same time holding the free end of the said arm in contact with the inner end of the hammer B when the latter is in an outermost position, as shown in Fig. 1.

When the hammer B is moved to the fixed anvil or die A to form the head on the wire, then the free end of the arm F rests against one side of the hammer, as shown in dotted lines in Fig. 1. When the hammer is withdrawn after finishing the head, the arm F follows the movement of the hammer caused by the action of the spring H, and when the hammer B moves again toward the anvil and the finished nail has been cut by the knives in the usual manner then the inward motion of the said hammer forces the free end of the arm F against the nail, so that the latter is broken off or detached from the wire and at the same time forced downward and thrown off the machine. At the time the hammer B is in position for forming the head on the nail the end of the arm F rests against the under side of the hammer, as previously explained, and shown in dotted lines in Fig. 1.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a nailing-machine, the combination, with the movable hammer, of an arm pivoted on the nailing-machine and extending at its free end to the end of the hammer, so that the latter actuates the said arm, and a spring pressing on the said arm, substantially as shown and described.

2. In a nailing-machine, the combination, with a bolt adapted to be secured to the frame of the nailing-machine, of an arm pivoted on the said bolt and a spring held on the said bolt and pressing on the said arm, substantially as shown and described.

3. The combination, with the movable ham-

mer, of the transverse bolt D below the hammer, provided with a bearing-point D' on its headed end, the pivot portion D³ between its ends, and the nut D² on its opposite end, the
5 arm F, operated by the hammer and having a slot F' at its lower end receiving the part D³ of the bolt, the nuts G at opposite sides of the arm, and the spring H, coiled about the

bolt and pressing the arm F upward, substantially as set forth.

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Witnesses:

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