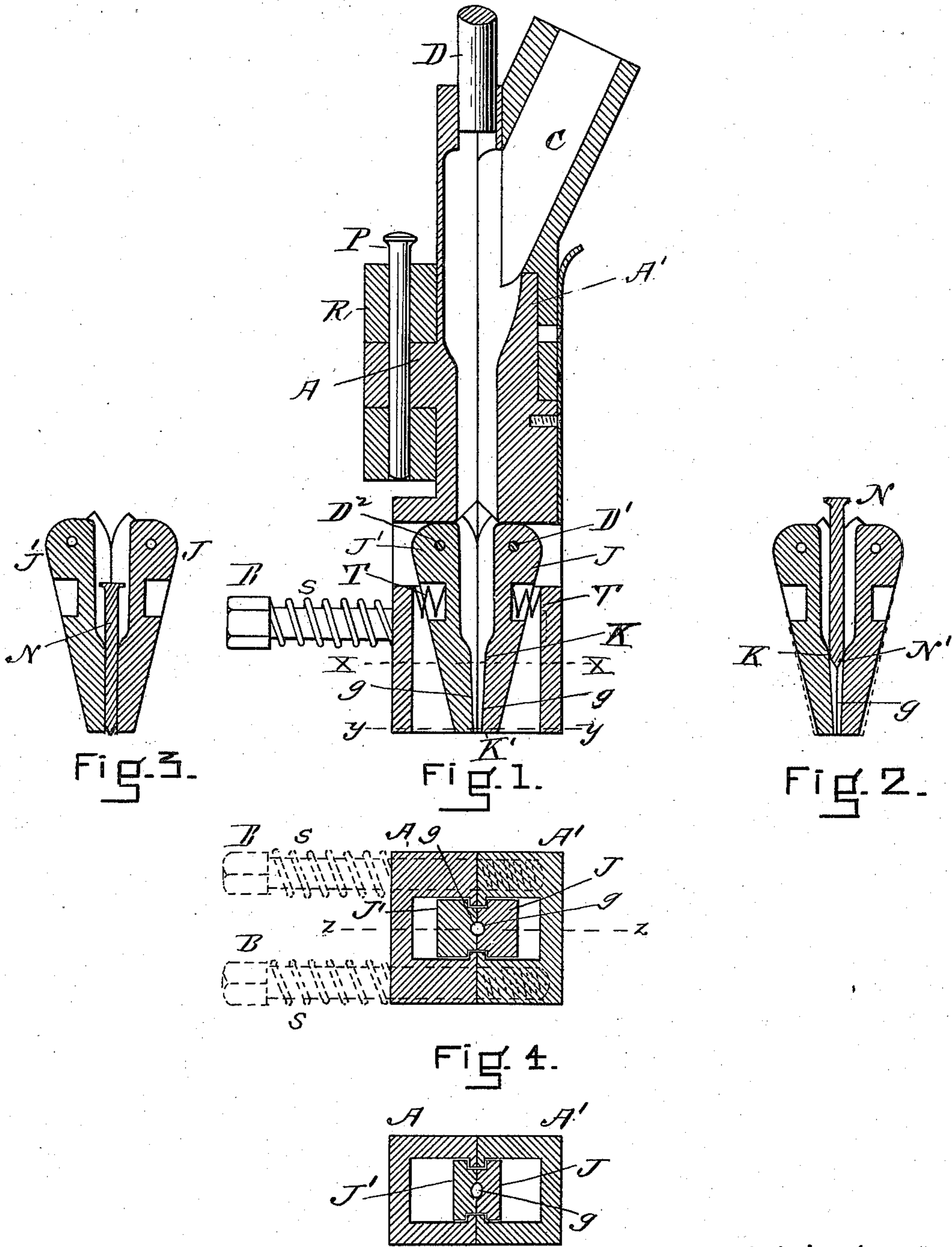


(No Model.)

B. S. ATWOOD.
NAIL FEEDING CHUCK.

No. 575,198.

Patented Jan. 12, 1897.



WITNESSES

Frank G. Parker
Frank & Hattie

Fig. 5.

INVENTOR

Benjamin S. Atwood

UNITED STATES PATENT OFFICE.

BENJAMIN S. ATWOOD, OF WHITMAN, MASSACHUSETTS.

NAIL-FEEDING CHUCK.

SPECIFICATION forming part of Letters Patent No. 575,198, dated January 12, 1897.

Application filed April 15, 1893. Serial No. 470,497. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN S. ATWOOD, of Whitman, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Nail-Feeding Chucks, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of nail-feeding chucks that are used on box-nailing machines, the object being to so improve the delivery end of the chuck that the nail as it passes through shall be not only guided as to its point, but held strictly and accurately in line at the time that it enters the wood and until it has penetrated to a sufficient depth to insure its being driven in the desired direction. This object I attain by the mechanisms shown in the accompanying drawings, in which—

Figure 1 is a vertical section of my chuck, taken on line $z z$ of Fig. 4. Fig. 2 is a vertical section taken centrally through the guiding-jaws, showing the position of the jaws as the point of the nail enters the nail-clasping portions of them. Fig. 3 is also a vertical section taken centrally through the guiding-jaws, showing the position of the jaws at a time when the nail has been forced by the driver so far as to have its point extending to or beyond the lower ends of the clasping parts of the jaws. Fig. 4 is a cross-section taken on line $x x$ of Fig. 1. Fig. 5 is a cross-section taken on line $y y$ of Fig. 1.

The parts C, A, and A' are similar to those of the nail-chuck now in use, except that the parts A and A' are yieldingly attached to each other, the part A being made fast to the rail R by a pin P, and the part A' is attached to the part A by means of the bolts B B and springs S S, so that it can yield, if required, as may be when a nail becomes caught in any part of the chuck.

D is the nail-driver, made and adapted to operate in the usual manner.

In the lower part of the chuck I attach two auxiliary jaws J and J', J being pivoted at D' to the part A, and J' at D² to the part A'. The lower ends of the auxiliary jaws J and J' are held yieldingly together by the springs T and T'. In the contacting faces of the two guiding-jaws J and J' grooves g are made. These grooves are so made that at the point K cut by the line $x x$, Fig. 1, a cylindrical hole (see Fig. 4) is formed, this hole being just large enough to admit of the entrance of the point of the nail N N'. (See Fig. 2.) At the lower end of the guiding-jaws the hole is elliptical (see Fig. 5) and not large enough when the jaws are closed for the passage of the nail, but as the nail is forced downward, as shown in Fig. 3, then the jaws swing open and hold the nail, as in a parallel clamp; that is, that part of the nail that is between the points K and K' of the jaws is held equally close, so that it cannot get out of line, and must enter the wood at the desired point and in the right direction.

I claim—

The combination of a chuck, one part of which is fixed to the machine and the other part yieldingly attached whereby the said chuck may be readily opened and when the obstructions are removed, closed without the aid of tools; with automatically-adjusting auxiliary nail-guiding jaws pivotally attached to the above-mentioned parts of the chuck and having between them a coned railway adapted to form a cylindrical passage for directing the nail, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 13th day of April, A. D. 1893.

BENJAMIN S. ATWOOD.

Witnesses:

FRANK G. PARKER,
FRANK G. HATTIE.