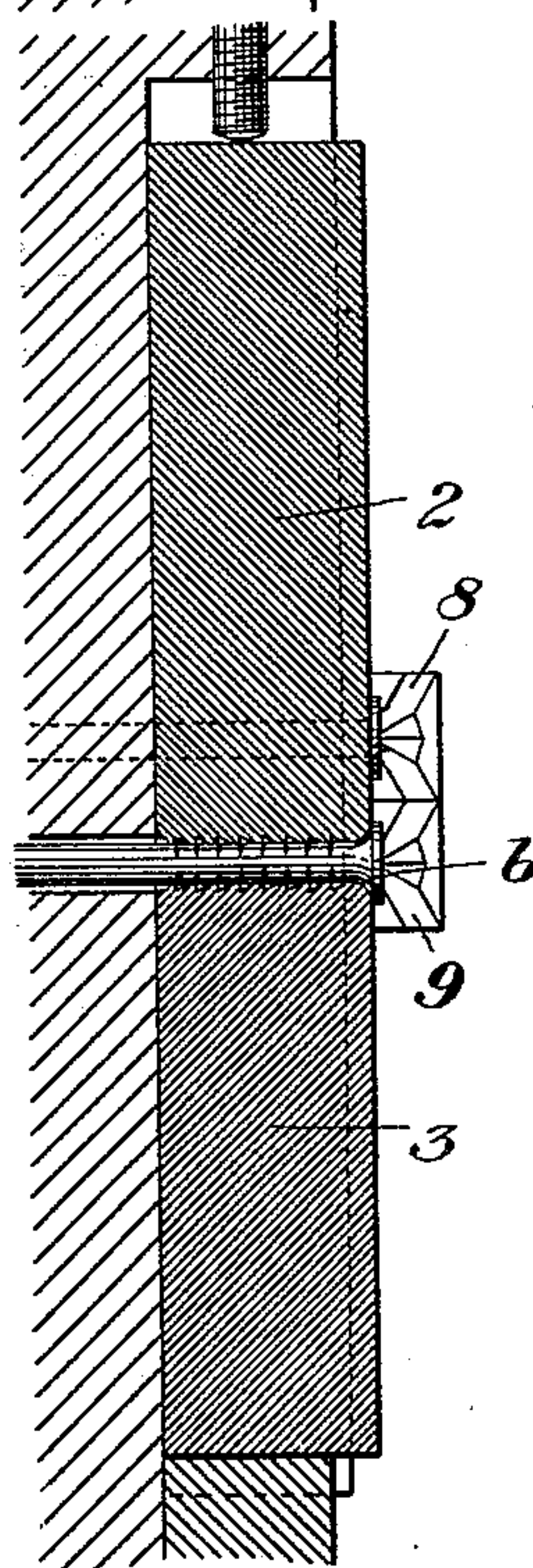
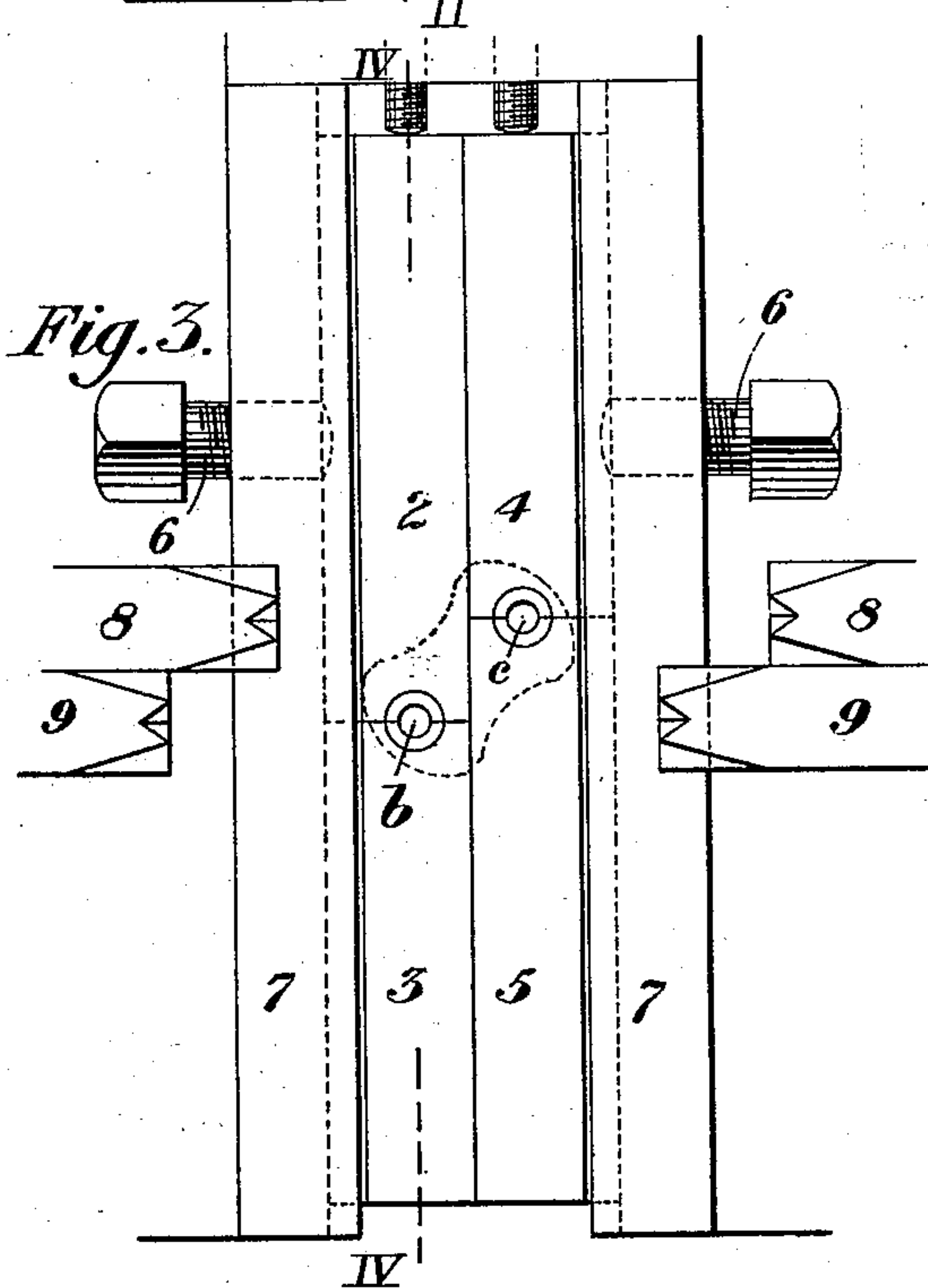
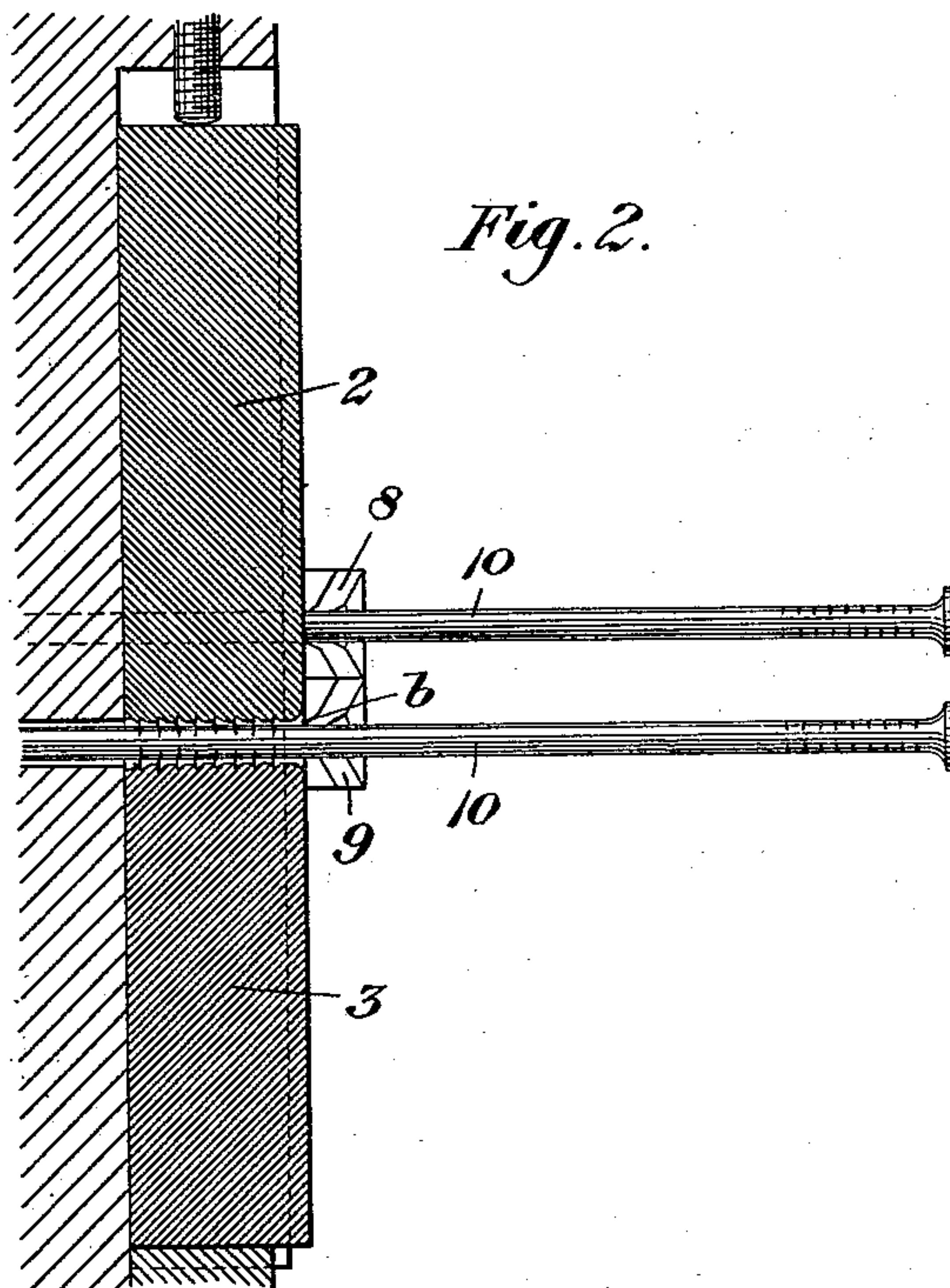
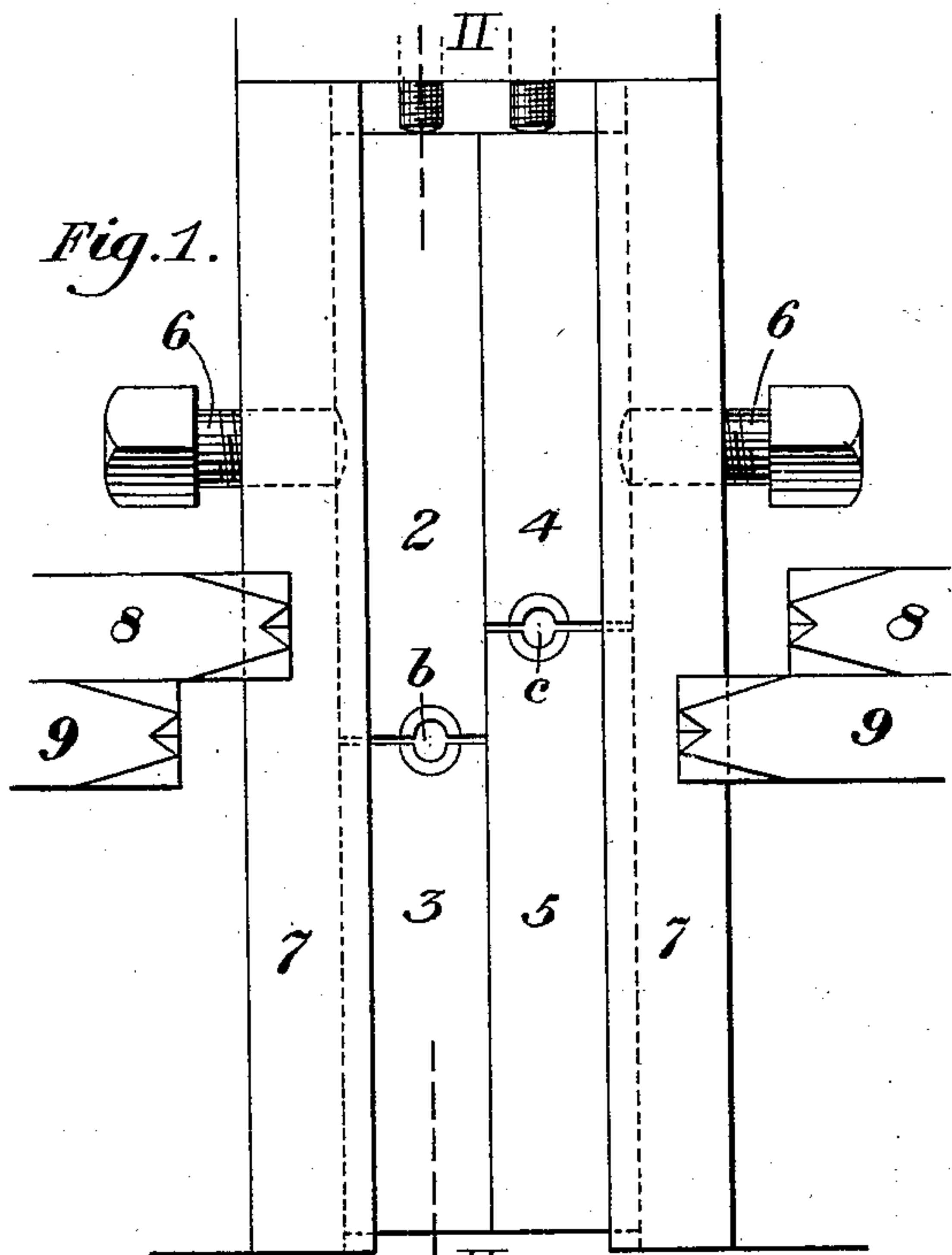


(No Model.)

R. NAYSMITH.  
DIE FOR WIRE NAIL MACHINES.

No. 507,379.

Patented Oct. 24, 1893.



WITNESSES

Thomas W. Baxwell  
*St. M. Corwin*

INVENTOR

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# UNITED STATES PATENT OFFICE.

ROBERT NAYSMITH, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE  
OLIVER & ROBERTS WIRE COMPANY, OF SAME PLACE.

## DIE FOR WIRE-NAIL MACHINES.

SPECIFICATION forming part of Letters Patent No. 507,379, dated October 24, 1893.

Application filed December 22, 1892. Serial No. 456,006. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT NAYSMITH, of  
Pittsburg, in the county of Allegheny and  
State of Pennsylvania, have invented a new  
and useful Improvement in Dies for Wire-  
Nail Machines, of which the following is a  
full, clear, and exact description, reference  
being had to the accompanying drawings,  
forming part of this specification, in which—  
Figure 1 is a front elevation of my improved  
die-mechanism, comprising gripping-dies and  
cutting-dies, the gripper-dies being open.  
Fig. 2 is a vertical section on the line II—II of  
Fig. 1. Fig 3 is a view similar to Fig. 1, but  
showing the gripping-dies closed; and Fig. 4  
is a vertical section on the line IV—IV of  
Fig. 3.

The object of my invention is to provide  
improved means by which a machine for mak-  
ing wire-nails or rivets can be adapted to  
make two or more nails or rivets at one oper-  
ation, and to this end it consists in the com-  
bination of two or more pairs of gripping-  
dies set parallel with each other but with their  
grippers in different planes, and cutters mov-  
ing transversely to the direction of motion of  
the gripping-dies.

In the drawings, 2, 3, and 4, 5, are two pairs  
of gripping-dies set side by side; the dies 2  
and 4 may be held stationarily by set-screws  
6, while the dies 3 and 5 are adapted to recip-  
rocate between guides 7, being actuated by  
suitable cam or lever mechanism, not shown.  
The opposite dies have end-grooves constitut-  
ing gripping-cavities *b, c*, these cavities being  
in different transverse planes, as shown in  
Figs. 1 and 3. The purpose of thus locating  
the dies is to permit the transverse action of  
the cutters hereinafter described. Each pair  
of gripping-dies has two cutters, 8, 8, and 9,  
9, respectively. The adjacent members of  
the cutters are connected together and move  
simultaneously as shown. They are stepped  
in their positions relatively to each other, so  
that their cutters 8, 8, will meet at the die-  
cavity *c*, while the cutters 9, 9, will meet at  
the die-cavity *b*.

The operation is as follows:—By means of  
suitable feeding mechanism, (not shown,) two  
parallel wires 10 having been fed forward  
simultaneously within the gripping-die cav-  
ities *b, c*, are gripped by simultaneous mo-  
tion of the grippers 3, 5. They are then sev-  
ered by the cutters 8, 9, which advance in  
opposite directions and recede. Thereupon,  
the heading-die, shown by dotted lines in  
Fig. 3, which is made of diagonal form so as  
to enter well between the cutters, advances  
and simultaneously upsets the projecting  
ends of the wires, as shown in Fig. 4. By  
retraction of the grippers 3, 5, the wires are  
then released, and the heading-die retreating,  
the feeding-mechanism advances the wires  
the length of one nail. Then the wires hav-  
ing been gripped again, the cutters advance,  
cut off and point the nails just made, and so  
the cycle of operations is continued as above  
described.

The advantages of my invention will be  
appreciated by those skilled in the art.

Within the scope of my invention, as de-  
fined in the claims, modifications may be  
made in the form and construction of the  
parts, since

What I claim is—

1. The combination of pairs of parallel  
moving gripping dies having gripping-cavi-  
ties in different planes, and transversely mov-  
ing cutters operating in conjunction with  
said cavities; substantially as described.

2. The combination of parallel moving  
stepped gripping dies having gripping-cavi-  
ties in different planes, transversely moving  
cutters operating in conjunction with said  
cavities, and a header situate diagonally rel-  
atively to the gripping-dies; substantially as  
described.

In testimony whereof I have hereunto set  
my hand.

ROBT. NAYSMITH.

Witnesses:

W. B. CORWIN,  
H. M. CORWIN.