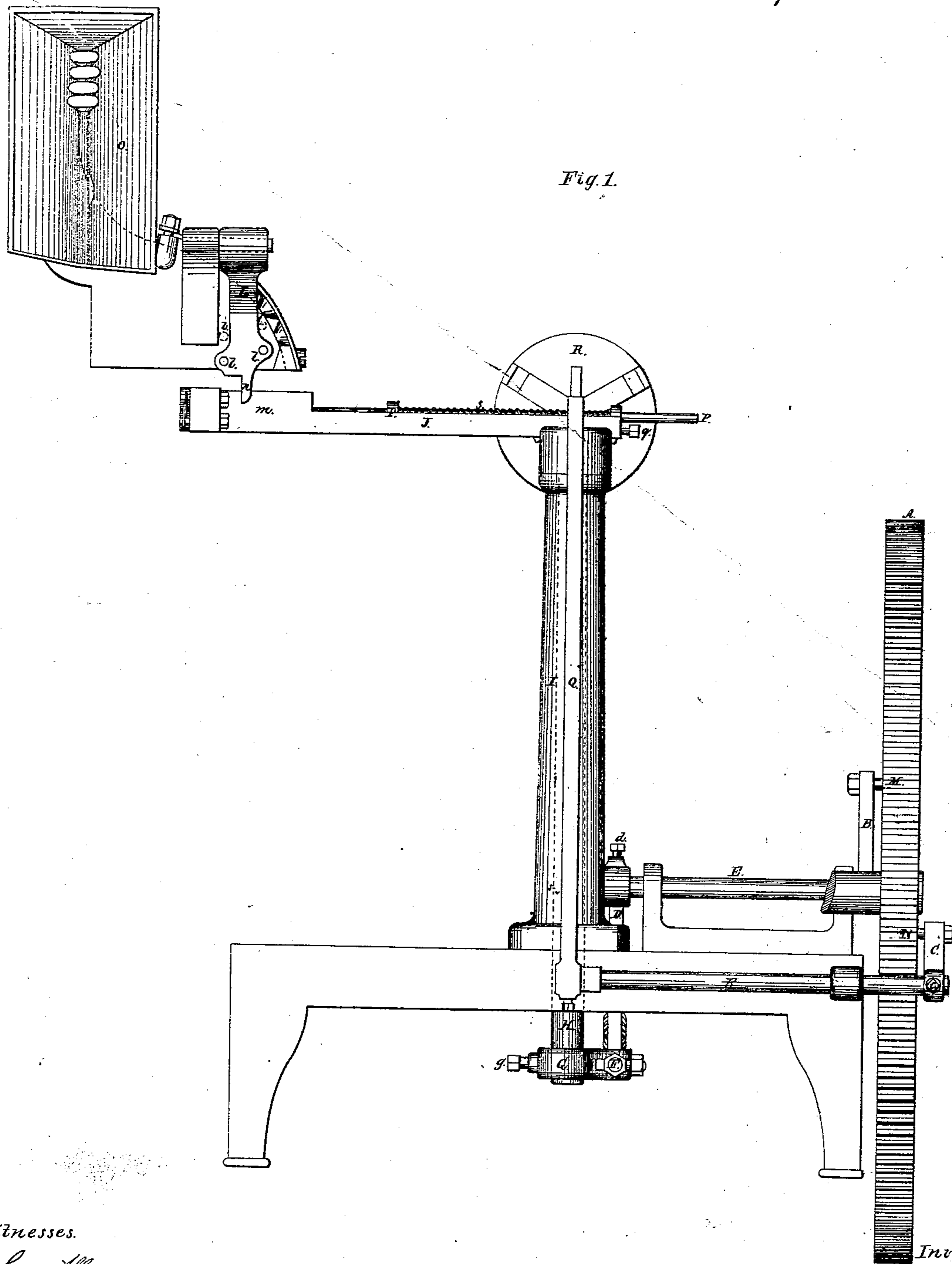


E. S. Pierce. Sheet 1, of 2 Sheets.
Screw Blank Feeder.
Nº 71,638. Patented Dec. 3, 1867.



Witnesses.

Sam. Allen
Thos. G. Ellis

Inventor.

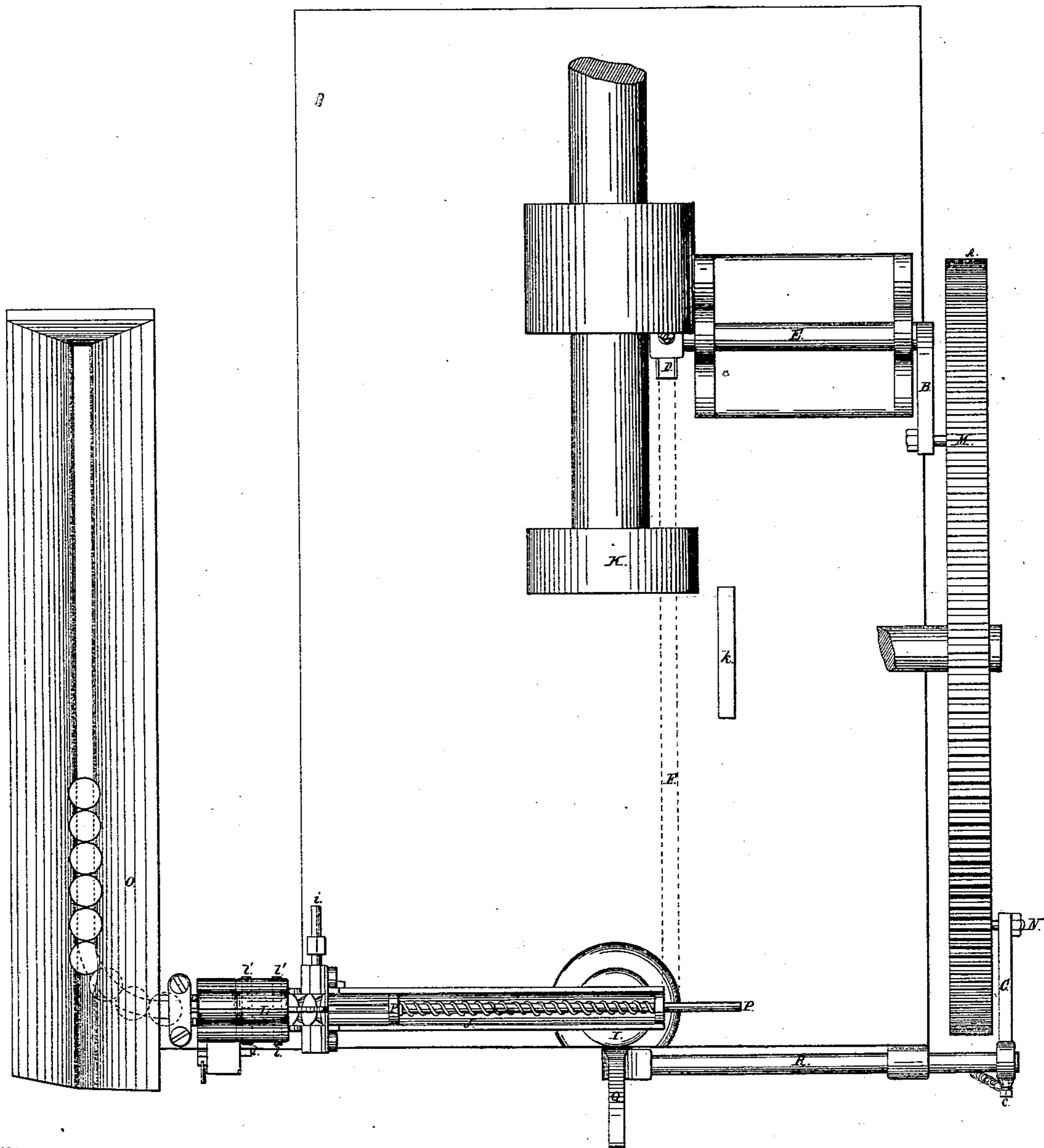
Elyah S. Pierce

E. S. Pierce. Sheet 2, 2 Sheets.
Screw Blank Feeder

N^o 71,638.

Patented Dec. 3, 1867.

Fig. 2.



Witnesses.

Sam Allen
Thos. G. Ellis

Inventor.

E. S. Pierce

United States Patent Office.

ELIJAH S. PIERCE, OF HARTFORD, CONNECTICUT.

Letters Patent No. 71,633, dated December 3, 1867.

IMPROVED MECHANISM FOR FEEDING SCREW-BLANKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, ELIJAH S. PIERCE, of Hartford, in the county of Hartford, and State of Connecticut, have invented a new and improved Feeding-Mechanism; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 shows a front view of the improved feeding-mechanism.

Figure 2 shows a top view or plan of the same.

Like letters in the figures indicate like parts.

My invention consists in an automatic mechanism for conveying and feeding screw-blanks or other similar articles, one by one, into a machine, in a uniform manner and in a proper position, so that they may be operated upon singly.

A is a wheel, which, as in the drawings, may be one of the wheels of the machine with which the feeding-mechanism is connected, and which is provided with cams, at M and N, to operate the levers B and C. The lever B has a lower arm, D, connected with it by the rocking-shaft E. To the arm D is attached a connecting-rod, F, which communicates a reciprocating motion to the lever G, attached to the bottom of the upright spindle H, which passes through the pillar I, and communicates motion to the conveying-arm J, so as to cause it to move from the position shown in the drawings round to communicate with the spindle and jaws K. *p* is a stop, to prevent the arm J moving farther than opposite K. The adjustable pin *i* strikes against it when the screw-blank is exactly opposite the jaws K. L is a rocking-piece for releasing one blank at a time from the trough O, so that one can drop into the receptacle *m*, in the conveying-arm J, at each movement of that arm. The piece L is furnished with projecting pins *l l* and *l' l'*, for holding and releasing the blanks. P is a rod for pushing the blanks into the jaws of the spindle K, when the arm J has moved so as to be opposite the proper point. This rod is operated by the arm Q, which is moved by the cam N, acting through the lever B and rocking-shaft R. *s* is a spring for operating the rod P, as will be described. *q* is an adjustable stop for the arm Q. *c, d,* and *g* are set-screws for adjusting the position of the levers C, D, and G upon their shafts.

The operation of my invention is as follows: The blanks being received from the hopper into the feeding-trough O, they pass down in a single row and rest upon the pins *l' l'*. The rocking-piece L is pressed against the conveying-arm J by a spring, which, as soon as the arm J is turned toward K, moves the piece L, and presses in the pins *l* and *l*, and releases *l'* and *l'*, so that a blank falls down upon *l* and *l*, and the next takes its place. When the arm J again strikes the piece L, on its return, the pins *l'* and *l'* are again pushed in, and *l* and *l* released, which drops the blank into the receptacle *m* of the arm J. The arm J turns by the operation of the cam M, and brings the blank opposite the jaws in the spindle K. The rod P is then pushed in by the arm Q, operated by the cam N, and the blank is received by the jaws. The arm Q then withdraws, and allows the rod P to be forced back to its first position by the spring *s*. The conveying-arm J then returns to its first position, as shown in the drawings, and strikes the lower end, *n*, of the rocking-piece L, pushes it back against its spring, and releases another blank, which falls into the receptacle *m*, in the arm J, as before described. The arm J then rests in its position till the next blank is needed to be fed into the machine.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the cams M and N, the levers B, C, D, and G, the rocking-shafts E and R, the connecting-rod F, the spindle H, the conveying-arm J, the rod P, the arm Q, the rocking-piece L, the feeding-trough O, or their mechanical equivalents, the whole constituting a feeding and conveying-mechanism, substantially as herein set forth.

2. The combination of the conveying-arm J, the rod P, the arm Q, and the feeding-trough O, operating substantially as herein described, and for the purpose specified.

3. I claim the conveying-arm J, the rod P, and the arm Q, constructed and operating substantially as described.

Witnesses:

SAM. ALLEN,

THEO. G. ELLIS.

ELIJAH S. PIERCE.