S. T. PROUDMAN.

Screw-Blank Feeders.

No. 147,791. Patented Feb. 24, 1874.

fig. 1

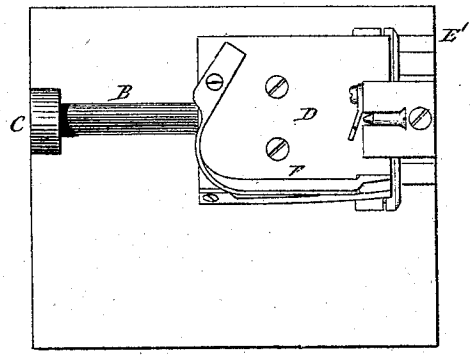


fig. 2

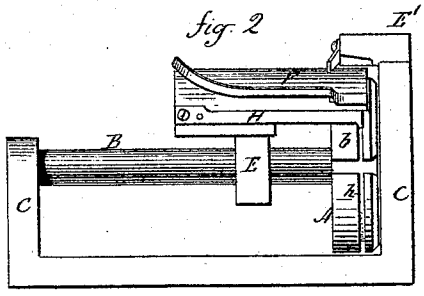


fig. 3

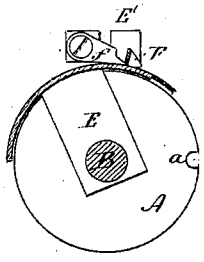


fig. 4

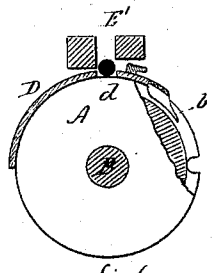


fig. 5

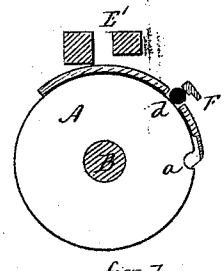


fig. 6

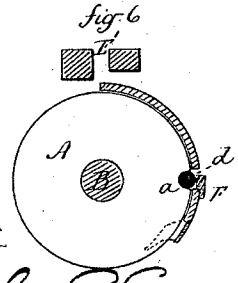
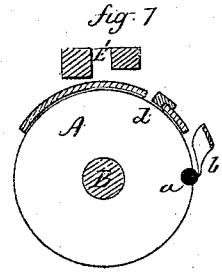


fig. 7



Witnesses.
A. J. Tibbits
J. H. Shumway

Sam'l. T. Proudman
Inventor
By Attys.
Wm. H. Earle

UNITED STATES PATENT OFFICE.

SAMUEL T. PROUDMAN, OF MERIDEN, CONNECTICUT, ASSIGNOR TO CHARLES PARKER, OF SAME PLACE.

IMPROVEMENT IN SCREW-BLANK FEEDERS.

Specification forming part of Letters Patent No. 147,791, dated February 24, 1874; application filed January 7, 1874.

To all whom it may concern:

Be it known that I, SAMUEL T. PROUDMAN, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Screw-Blank Feeders; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top or plan view; Fig. 2, a side view; and in Figs. 3 to 7, inclusive, transverse sectional views.

This invention relates to an improvement in blank-feeding device for screw and similar machines.

In the usual construction a rotary carrier is arranged with numerous notches to receive each a single blank in passing the column, and carry the blanks to and hold them at the point required for the operation of the working die or device. In such construction it is impossible to make all the notches or seats in the carrier exactly alike; hence it is impossible to produce screws positively uniform. In some cases, as in machine screws, the variation in threading is so great as to compel the assorting of the screws into different classes.

To overcome this difficulty is the object of this invention; and it consists in a stationary holder having a notch or seat formed therein at the point where the operation upon the blank is to be performed, combined with a carrier which receives the blank from the column and transfers it to the seat or notch in the holder, as more fully hereinafter described.

A is the holder, of circular form, the center of which is in axial line with the shaft B, the said shaft supported in bearings C C, but the holder A held stationary independent of the shaft. In the holder, at the point where the blank is to be operated upon, a notch, *a*, is formed, of the size and shape according to the blank to be held. D is a carriage hung by an arm, E, to the shaft B, and so as to run closely upon the periphery of the holder. E′ is the throat of the blank spout or conductor. In the carriage a recess, *d*, is formed, into which the lowest blank falls when the recess passes beneath the column, as seen in Fig. 4, and having received the blank the carriage is moved around toward the seat *a*, and so soon as the blank has passed from under the spout a spring, F, attached to the carriage, bears upon the blank to support it in the carriage until the blank comes over the notch *a;* then the spring forces the blank down into the notch *a*, and free from the carriage; then the carriage is returned to receive a second blank, leaving the first in the holder for the action of the working-die. As the carriage approaches the spout on its return, the spring F strikes an arm, *f*, on the spout, and is thereby prevented from further movement, the carriage passing on to carry the recess *d* free from the spring F beneath the spout, there to receive a second blank and take, it as before, to the notch *a*. In order to insure the removal of the wrought blank from the seat or notch *a*, a finger, *b*, is formed on the end of a spring, H, and attached to the carriage, runs in a groove, *h*, in the periphery of the holder, as seen in Figs. 2 and 4, and, as the carriage passes down, this finger runs under the wrought blank, and throws it from its seat; the carriage leaves a second blank therein; then, in returning, the finger rides over the blank without disturbing it. Thus the carriage is reciprocated back and forth, receiving and delivering a blank at each full movement.

By this construction all the blanks are wrought in the same seat; hence they must all be alike, and as the carriage may be moved while the blank is being wrought, very little time is required for feeding compared with the usual device, where the holder rotates to receive the blanks, and stands for the work upon the blank.

The finger *b* is not essential, as usually the wrought blank will fall so soon as the dies leave it; but the finger insures the removal of the blank.

I claim as my invention—

1. The stationary holder A, provided with

a seat, *a*, for the blank, combined with the reciprocating carriage D and the delivery-spout E′, substantially as described.

2. In combination with the stationary holder A, provided with a seat, *a*, for the blank, the reciprocating carriage D, and delivery-spout E, the spring F and arm or stop *f*, substantially as and for the purpose specified.

3. In combination with the stationary holder A, provided with a seat, *a*, for the blank, the reciprocating carriage D, and delivery-spout E, the spring-finger H *b* and groove *h* in the holder, substantially as and for the purpose specified.

SAML. T. PROUDMAN.

Witnesses:
JOSEPH H. BECKETT,
RALPH A. PALMER.