

(No Model.)

R. C. ELLRICH.
TOOL CHUCK.

No. 475,055.

Patented May 17, 1892.

Fig. 1

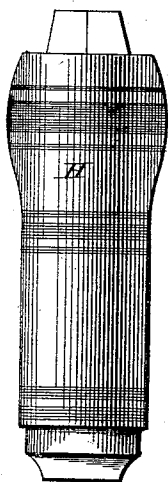


Fig. 2

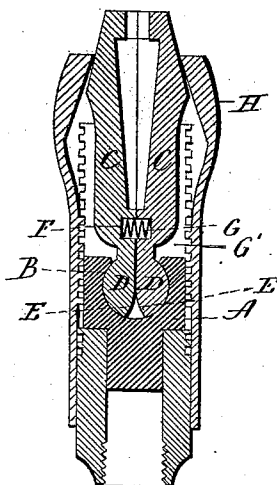


Fig. 3

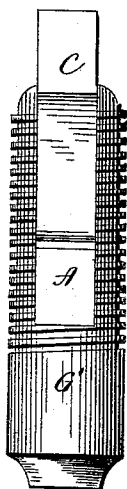
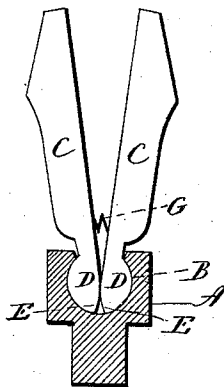


Fig. 4



Witnesses
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ROBERT C. ELLRICH, OF PLANTSVILLE, CONNECTICUT.

TOOL-CHUCK.

SPECIFICATION forming part of Letters Patent No. 475,055, dated May 17, 1892.

Application filed June 29, 1891. Renewed March 31, 1892. Serial No. 427,172. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ELLRICH, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new
5 Improvement in Tool-Chucks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and
10 which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a tool-chuck constructed in accordance with my invention; Fig. 2, a view of the chuck in central longitudinal section; Fig. 3, a view of the
15 chuck in side elevation with its sleeve removed; Fig. 4, a detached view of the seat and jaws.

My invention relates to an improvement in
20 tool-chucks, the object being to produce a simple, cheap, durable, convenient, and effective device.

With these ends in view my invention consists in the combination, with the socket and
25 sleeve of a tool-chuck, of an independent seat mounted in said socket and having a transverse cylindrical opening formed in it and leading into its outer end, two jaws having transverse semi-cylindrical bearings formed
30 at their inner ends, which are inserted into the opening in the said seat and having their inner faces beveled, and in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out
35 in the claims.

Under my invention the seat A has a transverse cylindrical opening B formed in it so as to open into its outer end. The inner ends of the jaws C C are provided with semi-cylindrical bearings D, arranged transversely
40 to the length of the jaws and adapted to fit into the cylindrical opening B, formed in the seat A, being inserted into the said opening through one end thereof. The inner faces of
45 these bearings are beveled at their lower ends, as at E E, for clearance, and so as to permit the jaws to fall apart, as shown by Fig. 4 of the drawings. Each jaw is provided upon its inner face and near its lower end with a pocket
50 F, the said pockets receiving the ends of a spring G, which is employed to automatically throw the jaws apart; but it may be dispensed with, if desired, as the jaws will fall apart by

gravity when the chuck is placed in a vertical position, as shown herein. The said seat 55 A is mounted in the usual manner in the longitudinally-slotted socket G', which is of ordinary construction, and the jaws C C are of usual construction, except as already specified. The sleeve H is also of ordinary construction, and operates upon the beveled outer ends of the jaws in the usual manner, and needs no particular description, my invention relating exclusively to the mode of connecting the inner ends of the jaws with their seat, 65 which holds them against longitudinal movement and also prevents the separation of their inner ends.

Having fully described my invention, what I claim as new, and desire to secure by Letters 70 Patent, is—

1. In a tool-chuck, the combination, with the socket and sleeve thereof, of an independent seat located in the socket and having a transverse cylindrical opening leading into its 75 outer end formed in it, and two jaws having transverse semi-cylindrical bearings formed at their inner ends which are inserted into the opening in the said seat, the inner faces of the said bearings being beveled for clearance, substantially as described, and whereby the jaws are held against longitudinal movement by the said seat, which also prevents their inner ends from separating. 80

2. In a tool-chuck, the combination, with the 85 socket and sleeve thereof, of an independent seat mounted in the socket and having a transverse cylindrical opening leading into its outer end formed in it, two jaws having semi-cylindrical transverse bearings formed at 90 their inner ends which are inserted into the opening in the said seat and provided with corresponding pockets in their inner faces, and a spring having its ends inserted into the said pockets for automatically separating the 95 jaws, substantially as described, and whereby the jaws are held against longitudinal movement by the said seat which also prevents their inner ends from separating.

In testimony whereof I have signed this 100 specification in the presence of two subscribing witnesses.

ROBERT C. ELLRICH.

Witnesses:

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