(No Model.)

A. J. PEAVEY.

TOOL HANDLE.

No. 368,351. Patented Aug. 16, 1887.

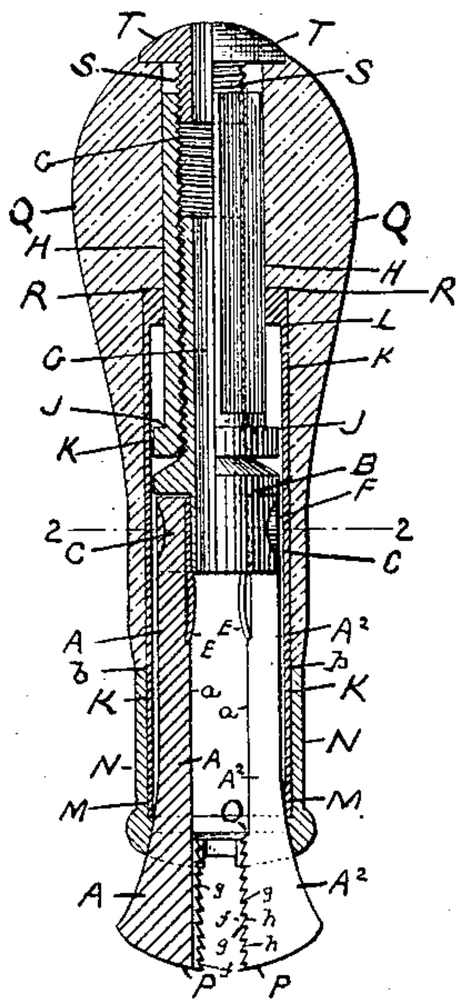

Fig. 1

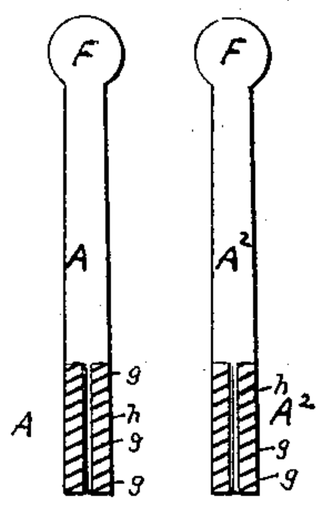

Fig. 3

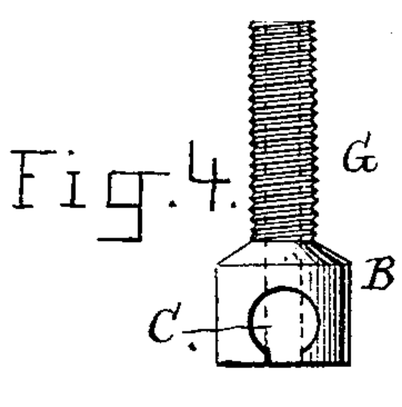

Fig. 4.

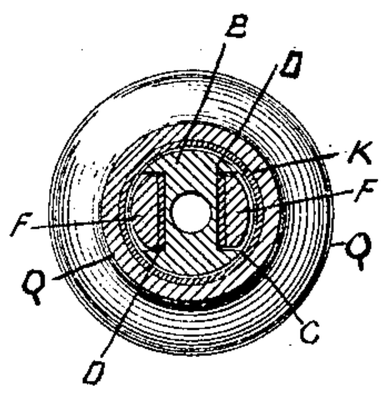

Fig. 2

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UNITED STATES PATENT OFFICE.

ANDREW J. PEAVEY, OF SOMERVILLE, MASSACHUSETTS.

TOOL-HANDLE.

SPECIFICATION forming part of Letters Patent No. 368,351, dated August 16, 1887.

Application filed May 13, 1886. Serial No. 202,073. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. PEAVEY, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Tool-Handles, of which the following is a full, clear, and exact description.

The tool-holder of this invention is more particularly of the class of tool-holders described and shown in Letters Patent of the United States issued to me, dated August 4, 1885, No. 323,727; and this invention, while particularly applicable to such tool-holders and so herein described and shown, is not to be limited thereto.

The invention consists in a novel constructed hinge of the holding or gripping jaws and their carrier, and also a novel combination of serrations making grooves or teeth in the gripping-faces of said jaws, all substantially as hereinafter described.

In the accompanying plate of drawings, forming part of this specification, Figure 1 is a central longitudinal section, and in some parts one-half in side view, of a tool-holder having the features of this invention. Fig. 2 is a cross-section on line 2 2, Fig. 1. Fig. 3 is a view in detail of the gripping-faces of the jaws. Fig. 4 is a view of the bolt and one of the springs.

In the drawings, A and A^2 are the two holding or gripping jaws, carried by a common head or block, B. The opposite sides of this jaw-carrier B have similar circular-shaped countersinks or depressions C, and in each depression sets the head D of a bent spring, E, and a head, F, of a jaw, A A^2, and both of these heads D F are of a round shape corresponding therewith. Each jaw A A^2 and spring E extend from the depression C of the jaw-carrier in which they are placed, passing through a cut leading radially therefrom, and in each instance the spring is between the jaw and the bottom of the depression containing it and the jaw, and thus the spring is held in place. Again, the free portion of each spring bears against the inner edge, *a*, of the shank of the jaw located in common with it in the depression of the jaw-carrier, and said inner edges of the shanks of the jaws when the jaws are in position are directly opposite each other.

The jaw-carrier B is axially coincident and continuous with a screw-threaded stem or bolt, G, screwing into a screw-threaded sleeve or nut, H, exteriorly made with square sides along its length and with a shoulder, J, at its end toward the jaw carrier or block B.

K is a tube or sleeve having at one end an interior shoulder, L, to rest against the shoulder J of the screw-nut H. This sleeve K incases both gripping-jaws and their common carrier or block B, and at its end M opposite to that having the shoulder L it enters into and fits closely the open end of a ferrule or thimble, N. This ferrule has a diametrical slot, O, for the passage and projection of the gripping or holding ends P of the holding or gripping jaws A A^2.

The several parts above described, excepting, however, the ferrule N, are incased in a sleeve, Q, the handle of the tool-holder suitably shaped exteriorly to be used as a handle and interiorly to receive the incasing-sleeve K of the jaws and their common carrier and also the square-sided screw-nut H in its projection from the shouldered end of said sleeve K, and also provided with a shoulder, R, making a rest or abutment for said sleeve, and to which it is confined by means of a headed screw-bolt, S, screwed into and brought to a seat and jammed against the open end of said screw-nut H and so seated, overlapping by its head T the handle Q at the corresponding end thereof, and this handle at its opposite end bears against the edge *b* of the open end of the ferrule or thimble N, and into which it is entered, as has been described.

The attachment described of the gripping-jaws A A^2 to the holder or carrier B therefor makes the hinging thereof, and, as is plain, each jaw, under the action of its spring and of its cam-shaped back edge against the end wall of the diametrical slot of the ferrule, as ordinarily and as well known, swings on its carrier B. The peculiar hinging of the jaws and application of a spring to each jaw herein described is one of the features of this invention.

In the tool-holder herein described the handle Q is in one piece, and while it is free to be turned or rotated, rotating the screw-nut H with it, it is not only held against longitudinal movement, but also the sleeve K within it,

and which directly incases the jaws A A^2 and receives the shouldered end J of said screw-nut. Again, as the screw-nut H screws on the screw-bolt G of the carrier B for the jaws, the turning of the handle in one direction moves the jaws outwardly and in the other direction inwardly and lengthwise through the diametrical slot of the ferrule or thimble N, and as the jaws move outwardly their springs open them from each other, and as they move inwardly the bearing of their cam-shaped outer edge against the opposite end wall of the diametrical slot of the ferrule forces them toward each other, all substantially a well-known operation in tool-holders of a similar class, and as is obvious without further explanation.

Each gripping-jaw has a similarly-constructed gripping-face, Fig. 3, and said construction consists of a series of parallel grooves, *f*, running across and diagonally to the length of the face, and each groove has a vertical wall, *g*, toward the outer end of the jaw and an inclining wall, *h*, leading therefrom. A grooving of the gripping-face of the jaws, such as above described, secures a series of parallel and diagonally-crossing teeth, and in operative position the teeth of the one jaw are presented toward the teeth of the other jaw, so that the teeth of the two jaws run in directions intersecting or crossing each other; and, again, the vertical walls of the grooves are toward the outer end of the jaws. The presentation of the diagonally-running teeth or grooves, or "serrations," as they may be termed, of the jaws, as above described, so as to intersect or cross each other secures a most effective hold on the tool or other article placed between and to be held by them; and, again, by having their vertical walls toward the outer end of the jaws the inward slipping of the tool or other article held by the jaws is most thoroughly and practically prevented. This arrangement of intersecting or crossing serrations in the opposite jaws is a feature of importance and one applicable to clutches as well as tool-holders of the class described. The ferrule of thimble N and sleeve K, incasing the jaws A A^2, may be fastened together by rivets or screws, or by screwing the one into the other, or otherwise. Although a particular hinging of the jaws A A^2 to their carrier B has been described, and which, in combination with the attachment of their springs E to the carrier, constitutes a feature of this invention, it is not intended to limit this invention in its other feature thereto, or to any particular hinge or other form of connection between the jaws and their carrier-block B.

Having thus described my invention, I claim—

1. In a tool-holder of otherwise suitable construction, a block or head, B, having a depression or recess, C, on its opposite sides, in combination with a gripping-jaw and a bent spring fitting in said recess and projecting radially therefrom, and the spring at its free portion resting against the jaw, substantially as described, for the purpose specified.

2. In a tool-holder of otherwise suitable construction, opening and closing gripping-jaws A A^2, each having a gripping-face constructed with diagonally-running and parallel serrations, and the jaws located with their gripping-faces opposite each other, and the serrations of the opposite faces extending in intersecting and crossing directions, substantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

A. J. PEAVEY.

Witnesses:
ALBERT W. BROWN,
KATE E. BELLOWS.