De L. KENNEDY.

Metal-Punch.

No. 161,968. Patented April 13, 1875.

Fig. 1

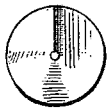
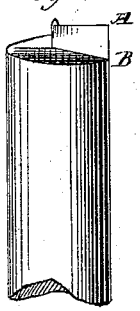


Fig. 2

Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

DE LANCY KENNEDY, OF NEW YORK, N. Y.

IMPROVEMENT IN METAL-PUNCHES.

Specification forming part of Letters Patent No. **161,968**, dated April 13, 1875; application filed October 22, 1874.

To all whom it may concern:

Be it known that I, DE LANCY KENNEDY, of the city, county, and State of New York, have invented an improvement in such punches as are used for punching metals and other substances, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification.

The nature of this invention consists in forming or shaping the ends of punches in a winding or spiral manner, by which a continuous shearing cut is performed as the tool is forced or driven into the substance to be punched, in the same manner that the blades of shears perform the operation in a straight line, and this applies the same whether the tool be round, square, or oval.

In the annexed drawing, Figure 1 represents a face view of a punch so formed; Fig. 2, a side view of the same; and Fig. 3, another side view, showing the face of the chisel or perpendicular cut from A B to the center.

In Fig. 2 the cutting-edge is seen to descend from the point A, and wind in a spiral or uniform manner around the tool until it has performed its circuit to the point B, and perpendicular to the starting-point A, the spiral cut extending to the center of the tool, or as nearly so as may be consistent with strength. From this it will be seen that only one side or portion of the cutting-edge of the tool is working at one time, and therefore the resistance of the metal or other substance is reduced to the lowest possible point.

I am aware that various methods have been resorted to to divide the resistance—such as cutting one part of the face of the tool a little lower than the other, or making it slightly concave or convex, or beveling it from one side or edge to the other, which devices, while they may, in a measure, reduce the resistance, do not accomplish the desired end by performing a uniform shearing cut around the entire circuit of the punch.

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

The herein-described punch, constructed with a cutting-edge extending from the point A in a spiral direction to B, and from the salient point of the spiral to the longitudinal center, as and for the purpose set forth.

DE LANCY KENNEDY.

Witnesses:
OLE H. HOLBERG,
D. S. RIDDLE.