

(No Model.)

J. FREARSON.

SCREW.

No. 308,246.

Patented Nov. 18, 1884.

FIG. 3.

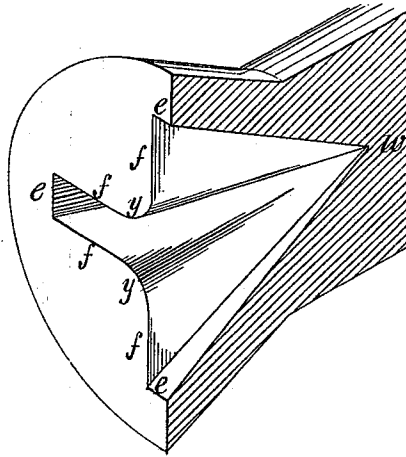


FIG. 1.

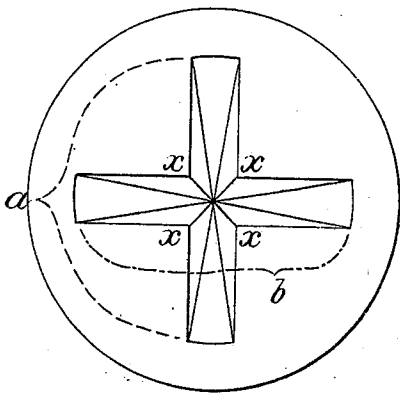


FIG. 2

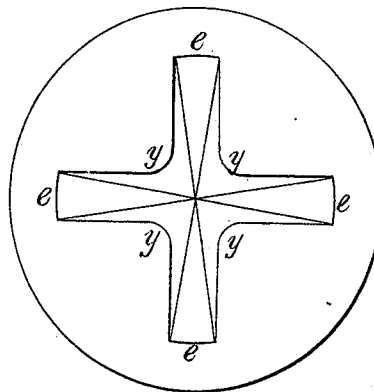
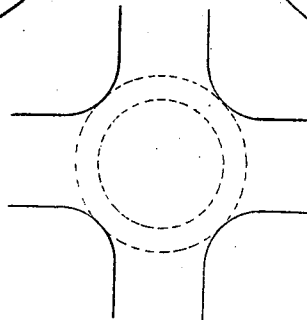


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN FREARSON, OF BIRMINGHAM, COUNTY OF WARWICK, ENGLAND.

SCREW.

SPECIFICATION forming part of Letters Patent No. 308,246, dated November 18, 1884.

Application filed December 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN FREARSON, of Birmingham, in the county of Warwick, in the Kingdom of Great Britain and Ireland, have invented an Improvement in Screws and Screw-Blanks; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of an improvement, fully described hereinafter, in the heads for screws or screw-blanks, for which Letters Patent of the United States No. 145,411 were granted to me on the 9th day of December, 1873.

In the accompanying drawings, Figure 1 is a face view of the head of a screw or screw-blank made in accordance with my said patent; Fig. 2, a face view of the head of a screw or screw-blank made in accordance with my present invention; Fig. 3, a sectional perspective view of Fig. 2; and Fig. 4, a diagram drawn to an enlarged scale, and illustrating one of the advantages of my improvement.

On referring to Fig. 1, it will be seen that there is in the head of the screw or screw-blank a cruciform orifice composed of two nicks, *a* and *b*, crossing each other at right angles, the nicks being within the limit of the head, and each nick being of angular form and of the greatest depth at the center of the head, as shown in Fig. 3.

In my former patent, as illustrated in Fig. 1, sharp corners *x* were presented where the nicks crossed each other, whereas in the screw-head which forms the subject of my present application the corners are rounded, as shown at *y*, Figs. 2 and 3. These rounded corners are less liable to be wounded and disfigured at the entrance of the nicks than the sharp corners, and the nicks can be more easily made in a perfect condition than when the corners are sharp, and especially is this the case when the screw-blanks are cast. By substituting

rounded for sharp corners, moreover, there is a considerable diminution in the quantity of metal used without any diminution in the strength of the head.

A further advantage of my improvement is the facility which it affords for the introduction of the end of the screw-driver into the orifice, a larger central space (indicated by the larger dotted circle shown in the diagram, Fig. 4) being presented for receiving the end of the screw-driver than when the corners are sharp, in which case the space will be that represented by the smaller dotted circle. The improvement, moreover, permits the adoption of much stronger dies for forming the incision, and a much stronger screw-driver than the orifice with sharp corners demands.

The sectional perspective view, Fig. 3, shows how the ends *e* of the nicks and the sides *f* of the same converge to a central point, *w*, the rounded corners also converging to this central point.

In some cases there may be in the screw-head an orifice composed of three nicks crossing each other; but the same plan of rounding the corners will be observed in this case.

I claim as my invention—

A screw or screw-blank in the head of which is an orifice formed by nicks with tapering ends and sides converging toward a point, said orifice having rounded corners *y*, where the nicks join each other, as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN FREARSON.

Witnesses:

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