(No Model.)

J. H. URSCHEL.

ANVIL AND SWAGE.

No. 405,191. Patented June 11, 1889.

Fig. 1.

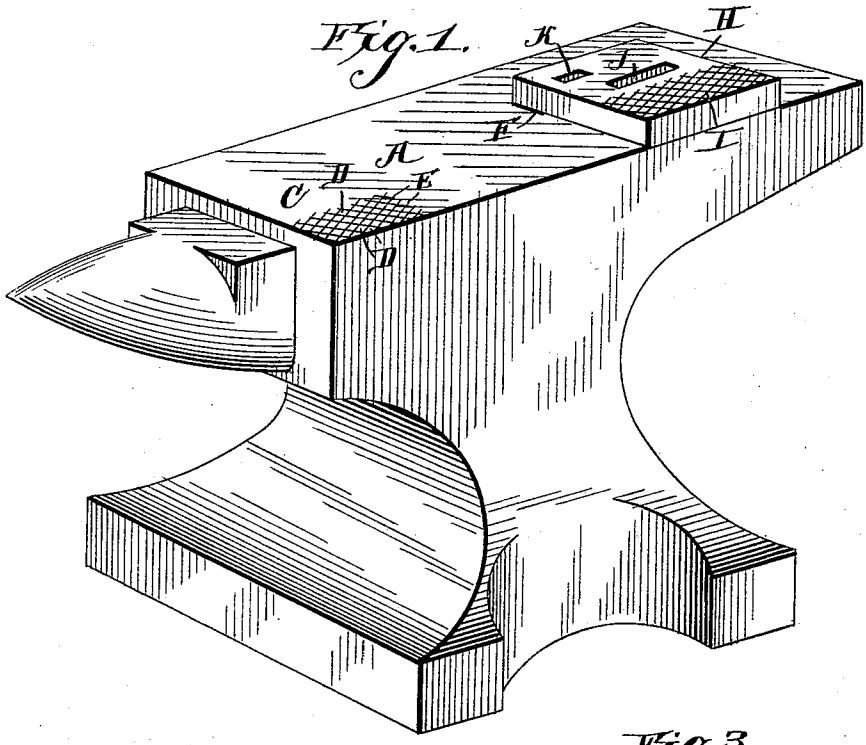


Fig. 2.

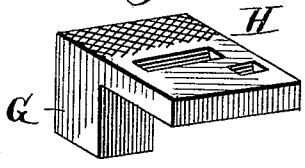


Fig. 3.

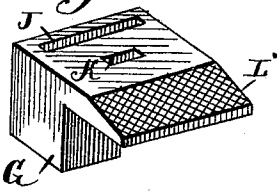
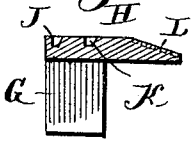


Fig. 4.



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JOHN H. URSCHEL, OF NORTON, KANSAS.

ANVIL AND SWAGE.

SPECIFICATION forming part of Letters Patent No. 405,191, dated June 11, 1889.

Application filed March 16, 1889. Serial No. 303,607. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. URSCHEL, a citizen of the United States, residing at Norton, in the county of Norton and State of Kansas, have invented new and useful Improvements in Anvils and Swages, of which the following is a specification.

This invention relates to anvils and swages; and it has for its object to produce a surface by which the material which is being operated upon shall be retained securely in position without danger of being displaced by blows of the hammer.

The invention further consists in the improved construction of the swage and anvil plates, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of an anvil to which my improved swage has been attached. Fig. 2 is a perspective view showing the swage detached. Fig. 3 is a perspective view showing a modified construction of the swage. Fig. 4 is a vertical sectional view of the latter.

The same letters refer to the same parts in all the figures.

A designates an anvil, one corner of the face of which—preferably one of the corners adjacent to the horn—is roughened or serrated, as shown at C. The teeth or serrations D D may be formed by grooves E E, intersecting each other diagonally, somewhat after the manner of file cuts; or they may be formed by striking up individual teeth or spurs from the face of the anvil somewhat after the manner of the construction of a coarse rasp; or they may be formed or produced in any other suitable manner. These teeth or serrations extend only over a comparatively small space of the face of the anvil, but sufficiently large for the purposes to be hereinafter described.

The anvil is provided with the vertical opening F to receive the shank G of the swage H. The shank is formed at one of the corners of the latter, and the face of the swage is preferably made of such a size that when it is placed in position upon the anvil its outer edge shall be about in a line with the edge of the latter. The outer margin of the face of the swage is provided with teeth or serrations I, which may be similar to those formed upon the face of the anvil. The face of the swage is also provided with recesses J K, adapted to form, respectively, the heel and the toe calks of a horseshoe.

When in the process of construction the horseshoe is placed upon the swage the teeth or serrations formed upon the latter will prevent the shoe from slipping while it is being operated upon. After the calks have been drawn out from the metal they are shaped by merely placing them upon their respective recesses and striking the back or top of the horseshoe, thus driving the metal into either of the recesses J K, which serve as dies to shape the calks. When the shoe is finished, it may be placed upon the swage with a toe-calk in its recess K, and it may then be straightened by two blows of the hammer, delivered upon the sides of the shoe. It will be seen that the toe-calk when finished by means of my improved swage is rough or corrugated upon its inner side, thus leaving it constantly rough as it wears down, the advantage of which will be readily understood.

In Figs. 3 and 4 I have illustrated a modification of the invention, which consists in beveling the outer edge of the face of the swage, as shown at L. When the edge of the swage is thus beveled, the shoe may be placed upon the swage straight up and down, and the bevel of the toe-calk may then be obtained by direct vertical blows upon the face of the shoe.

The operation and advantages of my invention will be readily understood from the foregoing description, in connection with the annexed drawings. The material placed for operation upon the serrated portion of either the anvil or the swage may be beveled, and glancing blows may be delivered upon it without danger of slipping. The under side of the material operated upon will also be left roughened or serrated, which is a great advantage in welding, inasmuch as it prevents the parts which are to be welded from slipping apart. When the beveled face is used, glancing blows may be wholly avoided, and the swage and anvil will be found generally useful for the beveling of all kinds of work preparatory to welding.

Having thus described my invention, I claim—

1. An anvil having teeth or serrations formed upon a portion of its face, substantially as set forth.

2. An anvil having teeth or serrations formed at one corner of its face, substantially as set forth.

3. An anvil attachment the face of which is provided with teeth or serrations, substantially as and for the purpose set forth.

4. The combination, with an anvil, of a swage provided with teeth or serrations along its outer edge, and having recesses or dies formed in the face thereof adapted to form the heel and toe calks of horseshoes, substantially as set forth.

5. A swage or anvil attachment having a toothed or serrated beveled face, substantially as set forth.

6. A swage or anvil attachment having the toothed or serrated beveled outer edge, and provided on its face with guides or recesses to form the heel and toe calks of horseshoes, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN H. URSCHEL.

Witnesses:
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W. HATCHER.