

(No. Model.)

F. S. KRETSINGER.
MANUFACTURE OF PITCHFORKS.

No. 524,719.

Patented Aug. 21, 1894.

Fig. 1.

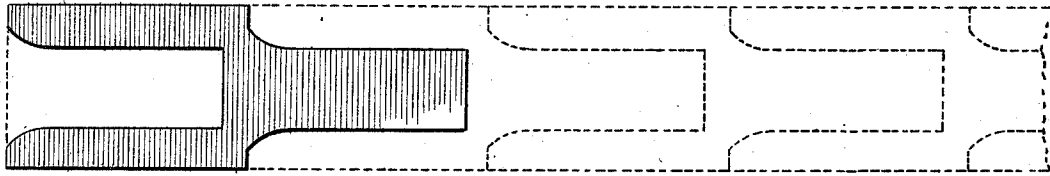


Fig. 2.

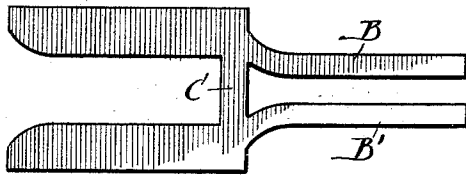


Fig. 3.

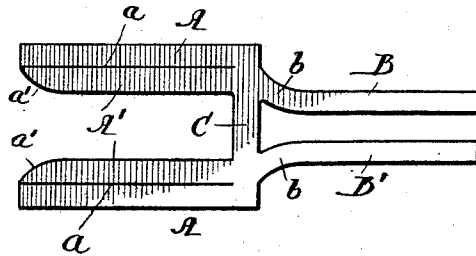
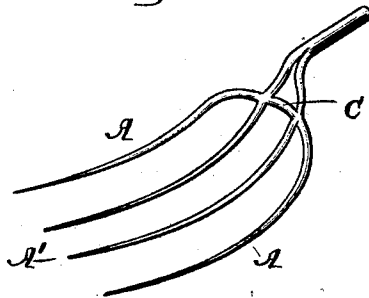


Fig. 4.



Witnesses:
Fred Grula &
Alberta Adamick

Inventor:
F. S. Kretsinger
By Percy Fisher
Attorney.

UNITED STATES PATENT OFFICE.

FREDERICK S. KRETSINGER, OF FORT MADISON, IOWA.

MANUFACTURE OF PITCHFORKS.

SPECIFICATION forming part of Letters Patent No. 524,719, dated August 21, 1894.

Application filed April 10, 1894. Serial No. 507,005. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK S. KRETSINGER, a citizen of the United States, residing at Fort Madison, Lee county, State of Iowa, have invented certain new and useful Improvements in the Manufacture of Forks, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My present invention has relation to the manufacture of that class of forks in which the entire fork is formed from a single bar or plate of metal and more particularly does it relate to the type of forks known to the trade as "braced shank" forks, this term being the one commonly employed to designate such forks as are provided with double tang bars extending from different points on the back of the fork, the free or outer ends of the tang bars being joined or laid together for connection to the handle of the fork.

The object of my present invention is first to improve the methods heretofore proposed for manufacturing this class of forks, and second, to produce a novel form of blank that may be readily completed into the finished fork.

My invention will be hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims at the end of this specification.

Figure 1 is a plan view of the unfinished blank as it is first cut from the bar, the outlines of the bar being shown by dotted lines. Fig. 2 is a plan view showing the unfinished blank illustrated in Fig. 1 after the material has been removed to form the double tang bars. Fig. 3 is a plan view of the finished blank. Fig. 4 is a perspective plan view showing the completed fork.

In practicing my invention I take a bar of steel of proper width, thickness and length and beginning at one end I punch therefrom the unfinished blank illustrated in Fig. 1 of the drawings. The blank thus punched out comprises not only all the metal necessary to form the completed fork but also an excess of metal between the parts from which the tang bars are to be formed and this excess of

metal is removed by a second step in the operation, that is to say, by cutting out the metal that lies between the tang bars B and B' as illustrated in Figs. 2, 3 and 4 of the drawings. This excess metal will be subsequently utilized as it will be found to contain sufficient material for the manufacture of a smaller type of fork. After the blank has been cut as illustrated in Fig. 2 of the drawings, the cut *a* will be made in the blank at the points indicated in Fig. 3, thereby dividing the blank into the parts A, A and A', A' that extend outwardly from the cross-bar C. The parts A contain the proper amount of metal for forming the outer tines of the fork as illustrated in Fig. 4 of the drawings, while the parts A' will form the central tines, these tines projecting from the cross-bar C from which cross-bar the tang bars extend in opposite directions, as illustrated more particularly in Fig. 4 of the drawings.

By reference to the dotted lines on Fig. 1 of the drawings, it will be seen that when the unfinished blank shown in Fig. 1 is cut from the bar of steel, the parts that lie on each side of that part of the blank from which the tang bars will be subsequently formed will constitute the tine portions of the next succeeding blank and thus the blanks can be cut without waste of material.

In carrying out my invention I prefer to cut the blank so that the base of the tang bars B and B' shall curve outwardly as at the points *b* because this not only insures a more effective distribution of the metal at the points where the tangs join the cross bar C but by thus cutting the blank, parts A' of the next succeeding blank will have the outer ends reduced as at *a'* and thus better distribute the metal since the parts A' from which the inner tines are to be formed do not require quite so much metal as do parts from which the outer tines will be made.

After the finished blank illustrated in Fig. 3 has been produced the various parts can be drawn out in the usual manner so as to form the tines, tang bars and cross-bar and these several parts will thereafter be suitably shaped as illustrated in Fig. 4 of the drawings, the tang bars having their outer portions

brought together as shown, for convenient attachment to the handle of the fork.

The rolling or drawing out of the tang bars, and the parts A from which the tines and shank are to be formed, can be effected in any suitable manner, as the subsequent treatment of the finished blank illustrated in Fig. 3 of the drawings, is not an essential part of my invention. So also the outer ends of the tang bars B and B' may be welded together, or may be simply brought together and left loose as preferred.

The finished blank as illustrated in Fig. 3 will be found to contain at the proper points the necessary metal from which the several parts of the fork are to be formed and consequently the labor of working the blank to form the completed fork is not only materially lessened but the working of metal from one point to another, or the leaving of excess metal at any part of the fork is avoided.

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

1. The method of manufacturing a "braced shank" metallic fork which consists in forming a blank, substantially as illustrated in Fig. 3, with the cross bar C from the front

edge of which project the bars A and A' from which the tines will be formed, and from the rear edge of which cross bar project the separate bars B and B' from which the tangs will be formed, the distance between the adjacent tine bars A' being equal to the distance between the outer edges of the tang bars B and B', and thereafter drawing out the tine bars and tang bars in the direction in which they are stamped and finally bringing together the tang bars B and B' to form a braced shank.

2. A blank for the manufacture of forks, substantially as illustrated in Fig. 3, said blank comprising a cross bar C from the front edge of which project the bars A, A and A', A', from which the tines will be formed and from the opposite edge of which project the separate bars B and B' from which the tang will be formed, the open unobstructed space bounded by the inner edges of the bars A' being equal to the space bounded by the outer edges of the separate tang bars B and B', substantially as described.

FREDERICK S. KRETSINGER.

Witnesses:

T. T. HITCH,
CHARLES A. GREGG.