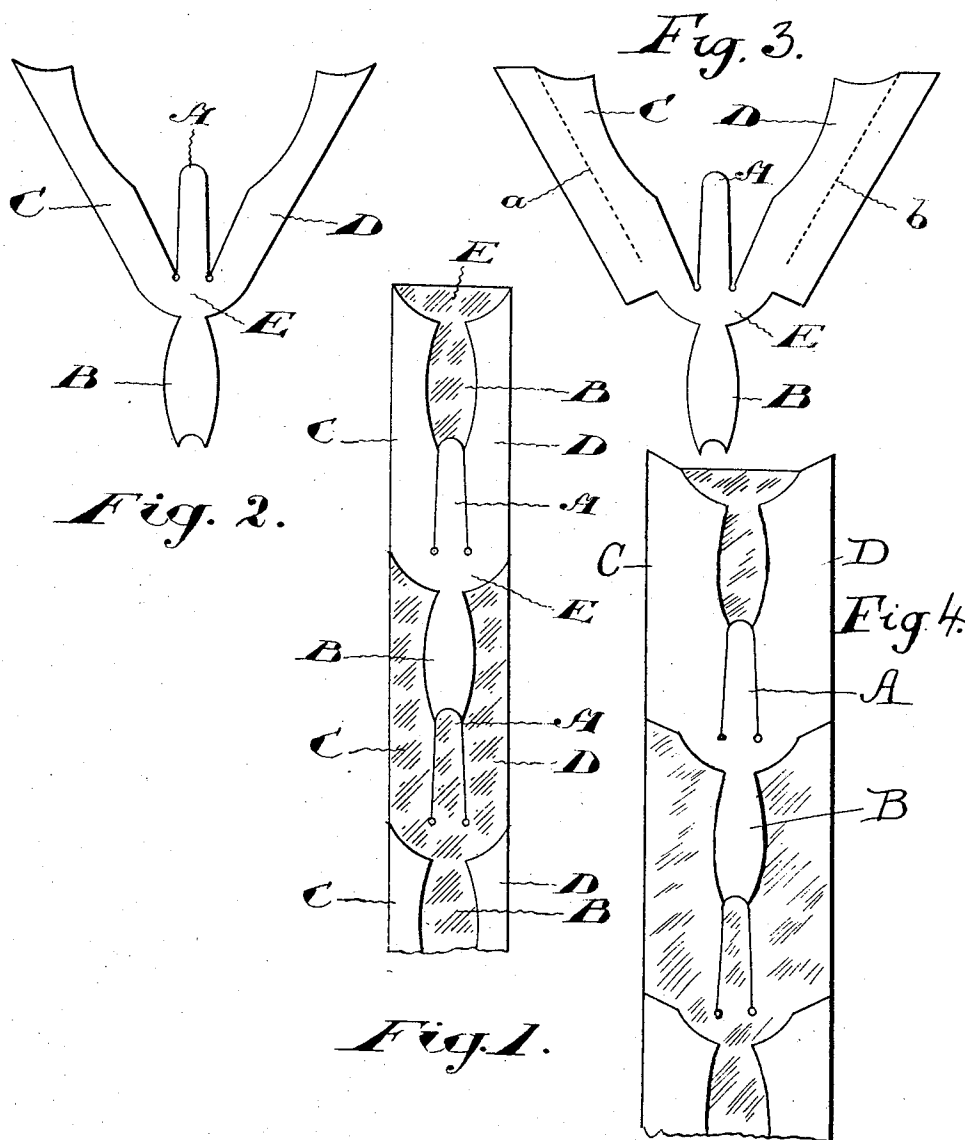


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PATENTED FEB. 21, 1905.

C. K. JANSEN & F. EISBRENNER.
BLANK FOR FORMING PITCHFORKS.

APPLICATION FILED JUNE 20, 1904.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CARL K. JANSEN AND FRANK EISBRENNER, OF TILLSONBURG, CANADA.

BLANK FOR FORMING PITCHFORKS.

SPECIFICATION forming part of Letters Patent No. 783,043, dated February 21, 1905.

Application filed June 20, 1904. Serial No. 213,441.

To all whom it may concern:

Be it known that we, CARL K. JANSEN and FRANK EISBRENNER, of the town of Tillsonburg, in the county of Oxford, Province of Ontario, Canada, have invented certain new and useful Improvements in Blanks for Forming Pitchforks, of which the following is a specification.

The object of our invention is to devise a blank for the manufacture of three or five tined hay-forks, manure-forks, and the like, which may be stamped from the stock without waste of material, in which the stock for the center tine is exactly opposite and in line with the stock for the shank, and which permits of three or five tine blanks being cut with the same die, substantially as hereinafter more specifically described and then definitely claimed.

Figure 1 is a plan view showing one complete blank for a three-tine fork and parts of two others. Fig. 2 is a view of a single blank with the outer tine portions spread. Fig. 3 is a view similar to Fig. 2, illustrating a blank for a five-tine fork. Fig. 4 is a view similar to Fig. 1 of a complete blank for a five-tine fork.

In the drawings like letters of reference indicate corresponding parts in the different figures.

Referring particularly to Fig. 1, it will be seen that each blank comprises a shank portion A, a center tine portion B, and outer tine portions C and D. The die used in stamping a blank is so shaped that as stamped out the shank portion A is separated from the outer tine portions C and D by two cuts, while the outer tine portions extend up beyond the shank portion and are separated from one another by a space corresponding exactly in size and shape to the center tine portion B. The center tine portion, it will be noticed, is exactly opposite to and in line with the shank. Its sides are preferably convexly curved or bulged, so that it is narrower at its point of junction with the rest of the blank than it is at a point between its ends. This feature is of importance, as we thus secure a sufficiency of material in the center tine portion to compensate for its shortness and in the subsequent operations of

rolling the rolls are enabled to secure a proper grip of the metal. The part E of the blank connecting the shank and the various tine portions is preferably curved, being convex toward the center tine portion B.

From the construction described it follows that after the blank has been stamped from the bar the metal remaining at the end of the bar forms part of the next blank. Hence at each stroke of the die a complete blank is turned out without waste, the only waste occurring at the commencement of operations, when a piece has to be stamped out corresponding to the center tine portion and central connecting part of a blank. Not only with such a blank is all waste avoided, but the whole of the central tine portion is exactly opposite to and in line with the shank. This is an important point in the construction of the fork with the central tine, as it is thus made absolutely certain that the central tine will be in line with the shank, and therefore with the handle, when the fork has been completed. The complete blank, such as shown in Fig. 2, is suitably rolled and put through the ordinary process necessary to complete the fork.

By a modification our improved blank can be adapted for the construction of five-tine forks, the only difference being that the outside portions C and D are made of extra width, so as to contain enough material each for two tines. The extra width of material is indicated in Fig. 4, and a complete blank for a five-tine fork is shown in Fig. 3, the cuts *a* and *b* in the side tine portions being made subsequent to the first stamping.

In practice we are enabled to cut either three or five tine blanks with one die, as the die is made large enough to cut the five-tine blanks, and will then when a narrower bar of stock is substituted readily stamp out three-tine blanks.

We find the present blank presents several advantages over that shown in our prior patent, No. 761,681, dated June 7, 1904, as with the present construction we are enabled to do away with the curve or jog in the center tine portion of the former blank, and we are further enabled to cut three or five tine blanks

with the same die, which we could not do with the previous form of blank.

What we claim as our invention is—

1. An integral blank for forming pitchforks 5 and the like comprising a shank portion; a center tine portion extending in the opposite direction to the shank portion and lying in line with and opposite to the shank; and outside tine portions, one on each side of the shank 10 portion and separated therefrom by a cut, the outside tine portions being longer than the shank portion and separated from one another by a space corresponding in size and shape to the center tine portion, and shank, substantially 15 as described.

2. An integral blank for forming pitchforks and the like comprising a shank portion; a center tine portion having its sides symmetrical bulging outwardly from its point of connection 20 with the other parts and extending opposite to but in line with the shank; and outside tine portions, one on each side of the shank portion and separated therefrom by a cut, the outside tine portions being longer than the

shank portion and separated from one another 25 by a space corresponding in size and shape to the center tine portion, and shank, substantially as described.

3. An integral blank for forming pitchforks and the like comprising a shank portion; a center 30 tine portion extending in the opposite direction to the shank portion and lying in line with and opposite to the shank; and outside tine portions, one on each side of the shank portion and separated therefrom by a cut, the 35 outside tine portions being longer than the shank portion and separated from one another by a space corresponding in size and shape to the center tine portion, and shank, and the 40 bases of the outer tine portions being curved outwardly in the direction in which the said portions extend, substantially as described.

Tillsonburg, June 16, 1904.

CARL K. JANSEN.

FRANK EISBRENNER.

In presence of—

V. A. SINCLAIR,

ARTHUR H. DOWLER.