

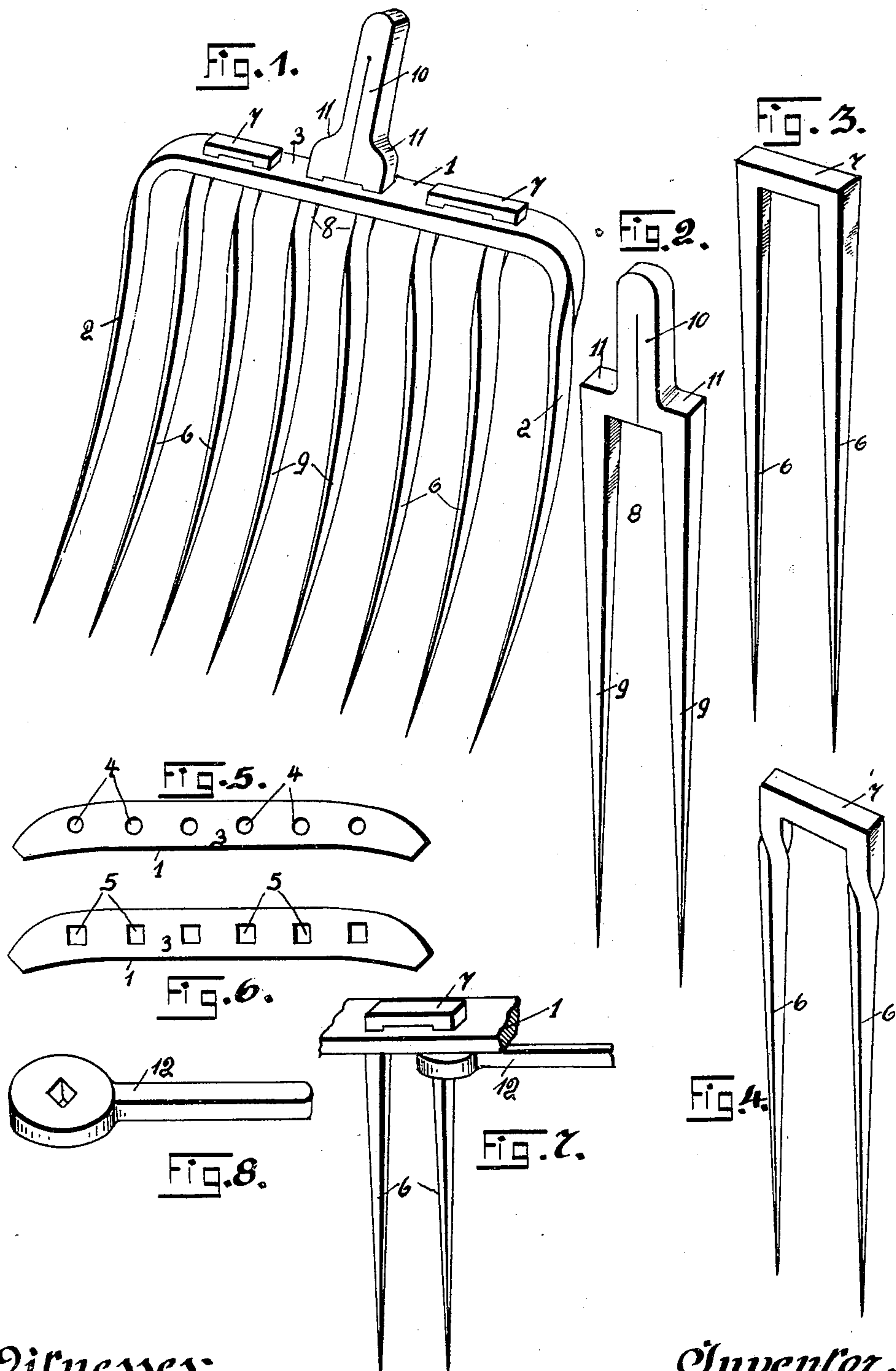
No. 792,350.

PATENTED JUNE 13, 1905.

C. W. ROBISON.

FORK.

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UNITED STATES PATENT OFFICE.

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FORK.

SPECIFICATION forming part of Letters Patent No. 792,350, dated June 13, 1905.

Application filed October 18, 1904. Serial No. 228,913.

To all whom it may concern:

Be it known that I, CHARLES W. ROBISON, a citizen of the United States of America, residing at McKees Rocks, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Forks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in forks, and has for its object the provision of a novel form of fork which is particularly adapted for handling coal, coke, railroad-ballast, and the like; and the object of this invention is to provide a fork of an extremely simple construction which will withstand the rough usage to which forks of this type are generally subjected.

Another object of this invention is to construct a fork of a plurality of pieces which are connected together to form a fork the rigidity of which will at all times be maintained.

The fork as constructed by me is formed of a plurality of bars which are bent and twisted to conform to a fork, one of said bars being bent to form the frame of the fork, while the others are interlocked within this frame-bar in such a manner that it will be impossible for the bars to become detached from the fork. To this end I have combined certain novel features of construction which will be hereinafter described in detail, and while I have shown the preferred manner of constructing my improved fork it is obvious that the same is susceptible to various changes which will be permissible by the scope of the appended claims.

Reference will now be had to the drawings accompanying this application, wherein I have illustrated my improved fork in detail, and like reference-numerals designate corresponding parts throughout the several views, in which—

Figure 1 is a perspective view of my improved fork. Figs. 2 to 4, inclusive, are perspective views of bars used in connection with my improved fork. Figs. 5 and 6 are top plan views of one of the bars forming the

frame of my improved fork, showing the same at different stages of construction. Fig. 7 is a perspective view of a portion of the frame having one of the bars mounted therein, and Fig. 8 is a detail perspective view of a wrench used when constructing my improved fork.

It has been customary heretofore in the manufacture of forks of this type to stamp or forge the same from sheet metal, such as sheet-steel, or from bar-steel. In constructing my improved fork I intend to make the same of a plurality of pieces of bar metal which will be connected together in such a manner as to provide a rigid and serviceable fork. Heretofore where these forks have been forged from bar-steel the durability of the fork has been somewhat diminished, owing to the fact that when one of the prongs of these forks becomes broken or burned during forging, the whole fork is rendered useless, and it is with this disadvantage in view that I have constructed my improved fork whereby should one of the prongs become broken the other prongs may be used in connection with a new prong. I will now describe the fork as I intend to construct the same, and reference will first be had to Fig. 1 of the drawings, whereby an understanding of the general construction may be had.

The framework of my improved fork, as designated by the reference-numeral 1, is constructed of a bar having tapering ends 2 2, and these ends are bent downwardly, forming a substantially U-shaped frame, the members 2 2 serving as the two outside prongs of the fork. The strap or bridge 3 of the frame is first provided with a plurality of circular apertures 4 4, the number of these apertures depending upon the number of prongs which are to form the fork. When these apertures have been formed, a suitable instrument is driven in each aperture, which will form a rectangular opening 5, and in said openings the bars comprising the prongs of the forks are secured. The prongs of the fork (with the exception of the two outside prongs) are formed of bars having tapering ends 6 6, and these ends are bent to form a substantially U-shaped member having a strap or bridge 7.

These U-shaped members are adapted to be placed in the openings 5 5 and be secured therein, as will be hereinafter described. In order to provide means whereby a handle may be secured to the fork, I have provided a specially-constructed member for the central openings 5 of the frame. This member, as designated by the reference-numeral 8, is formed of a bar of a slightly greater length than the bars which form the members 6 7, and the bar forming the member 8 is provided with tapering ends 9 9, and said bar is bent upon itself, forming a tang or strap 10, upon which the handle of the fork may be secured. The bars are then bent outwardly and downwardly, forming shoulders 11 11, against which the end of the handle may rest. This bar is also placed in the openings formed in the frame, as heretofore stated. The different members having been placed in the framework, the latter being heated and the tines or prongs driven through the apertures 5 while they are cold, will permit the frame to shrink upon the tines and form a rigid connection therewith, and they are locked therein by employing a spanner-wrench 12, as illustrated in Figs. 7 and 8 of the drawings. The wrench is placed upon each of the tapering ends of the prongs, and the wrench is moved upwardly upon said prongs adjacent to the frame, at which time the wrench is turned a quarter of a revolution, twisting each prong, as illustrated in Figs. 1 and 4 of the drawings. By so twisting each prong the members are locked in the frame, and it will be impossible for said prongs to become disengaged from said frame until they are again rotated to place the sides of each prong in alinement with the sides of the opening 5. The wrench is also employed to twist the tapering ends of the frame which form the outside prongs.

From the foregoing description, taken in connection with the drawings, it will be observed that a fork may be formed having a plurality of prongs, and should one of said prongs become broken it is not necessary to dispense with the whole fork, but only necessary to remove one set of prongs, and to accomplish this the special wrench is employed for twisting the prongs into the position shown in Fig. 3 of the drawings, at which time the pair of prongs can be removed from the fork. After each set of prongs has been secured in the frame the fork in its entirety may be placed in a suitable press, which will slightly bend each prong to the contour illustrated in Fig. 1 of the drawings. The curvature of each prong corresponding one to the other will provide a concavo-convex fork, at the same time will increase the life and wearing qualities of said fork.

It will of course be understood that the fork is to be tempered.

My invention resides entirely in the formation of the fork, and it will of course be understood that a suitable handle may be secured to the tang or strap of the central prongs.

It will be seen from this construction that I have overcome the objectionable features of forks which are forged from a single piece of metal wherein the tang is welded and that I have simply employed bars which are bent to conform to the different members of my improved fork.

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

1. A fork comprising a frame member consisting of a pair of integral prongs or tines and a connecting strap or bridge and means for securing one or more sets of the prongs in said strap or bridge.

2. A fork comprising a frame having integral prongs, a plurality of members secured in said frame, each member consisting of a pair of integral prongs or tines, one of said members having an integral tang, substantially as described.

3. A fork comprising a plurality of U-shaped members, each of said members consisting of a pair of integral prongs and a strap or bridge, and means for interlocking said members together, to form a fork.

4. A fork comprising a U-shaped frame having integral prongs, a plurality of members mounted in said frame, each member consisting of a pair of prongs, means for securing said members within said frame, one of said members having an integral tang to which a handle is adapted to be secured.

5. A fork comprising a U-shaped frame having integral curved and tapering prongs, a plurality of U-shaped members secured in said frame, each member consisting of integral tapering curved prongs, means for securing said members within said frame.

6. A fork comprising a plurality of bars having tapering ends, one of said bars having a plurality of openings formed therein, said bar being formed of a substantially U shape, and means for securing the other of said bars within said openings to form sets of prongs, substantially as described.

7. A fork comprising a frame member having integral prongs or tines, and a plurality of pairs of prongs or tines each formed integral with a connecting-strap, each prong being twisted to form a locking engagement with said frame member.

8. A fork comprising a U-shaped frame having integral prongs or tines, a plurality of members mounted in said frame, each member consisting of a pair of twisted prongs and a connecting strap or bridge whereby said members are securely locked in said frame, substantially as described.

9. As a new article of manufacture a fork

comprising a head strap or bridge the ends of
which are turned at right angles thereto to
form the outside prongs of the fork, and a
plurality of inside prongs inserted in pairs
5 provided in said head strap or bridge and
held therein by twisting the said prongs, sub-
stantially as described.

In testimony whereof I affix my signature
in the presence of two witnesses.

CHARLES W. ROBISON.

Witnesses:

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