March 15, 1955 W. CALL 2,704,200

CHAIN FORK

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Fig. 1

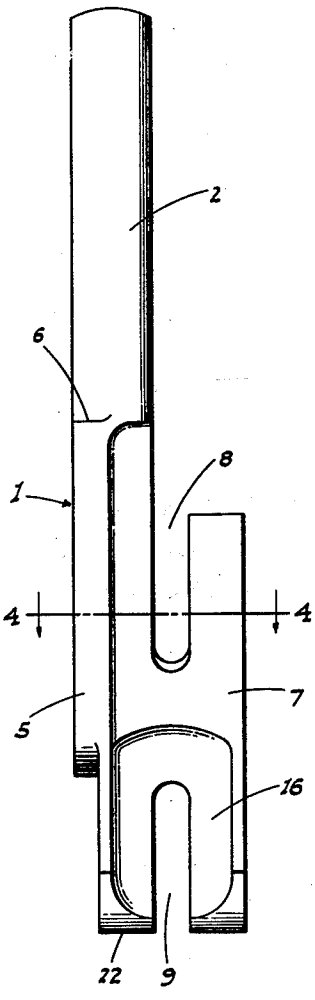


Fig. 2

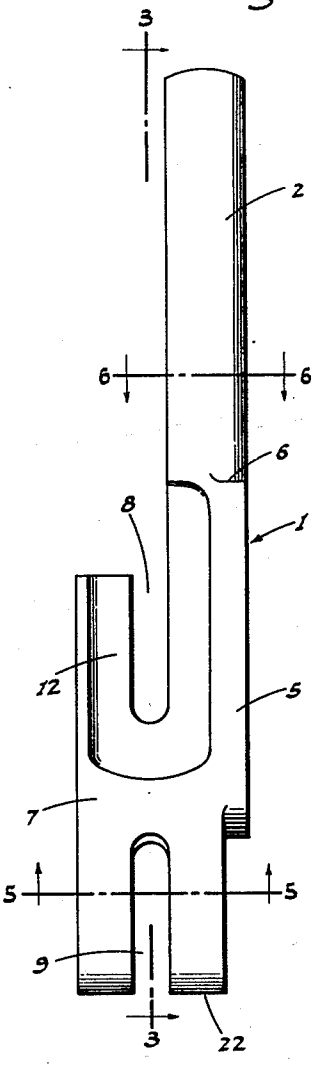


Fig. 3

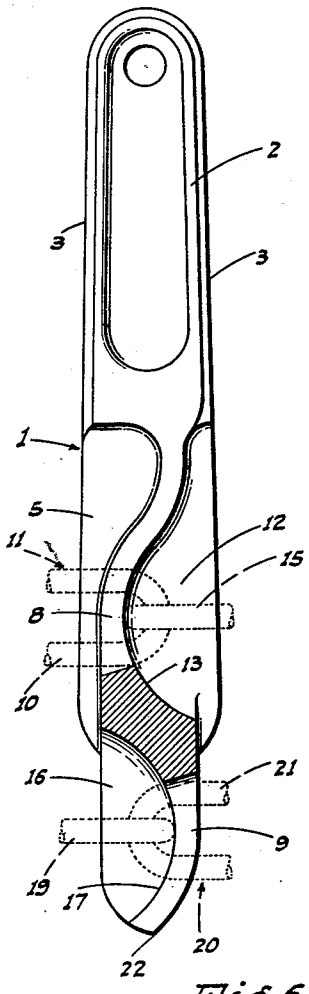


Fig. 4

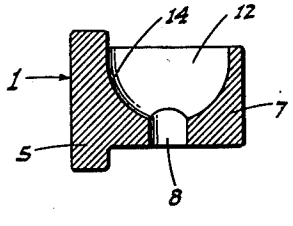


Fig. 5

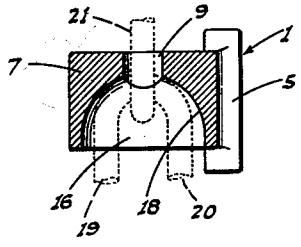
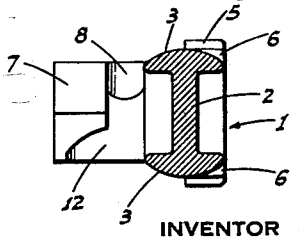


Fig. 6



INVENTOR
Wilson Call

BY
Webster & Webster
ATTYS

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CHAIN FORK

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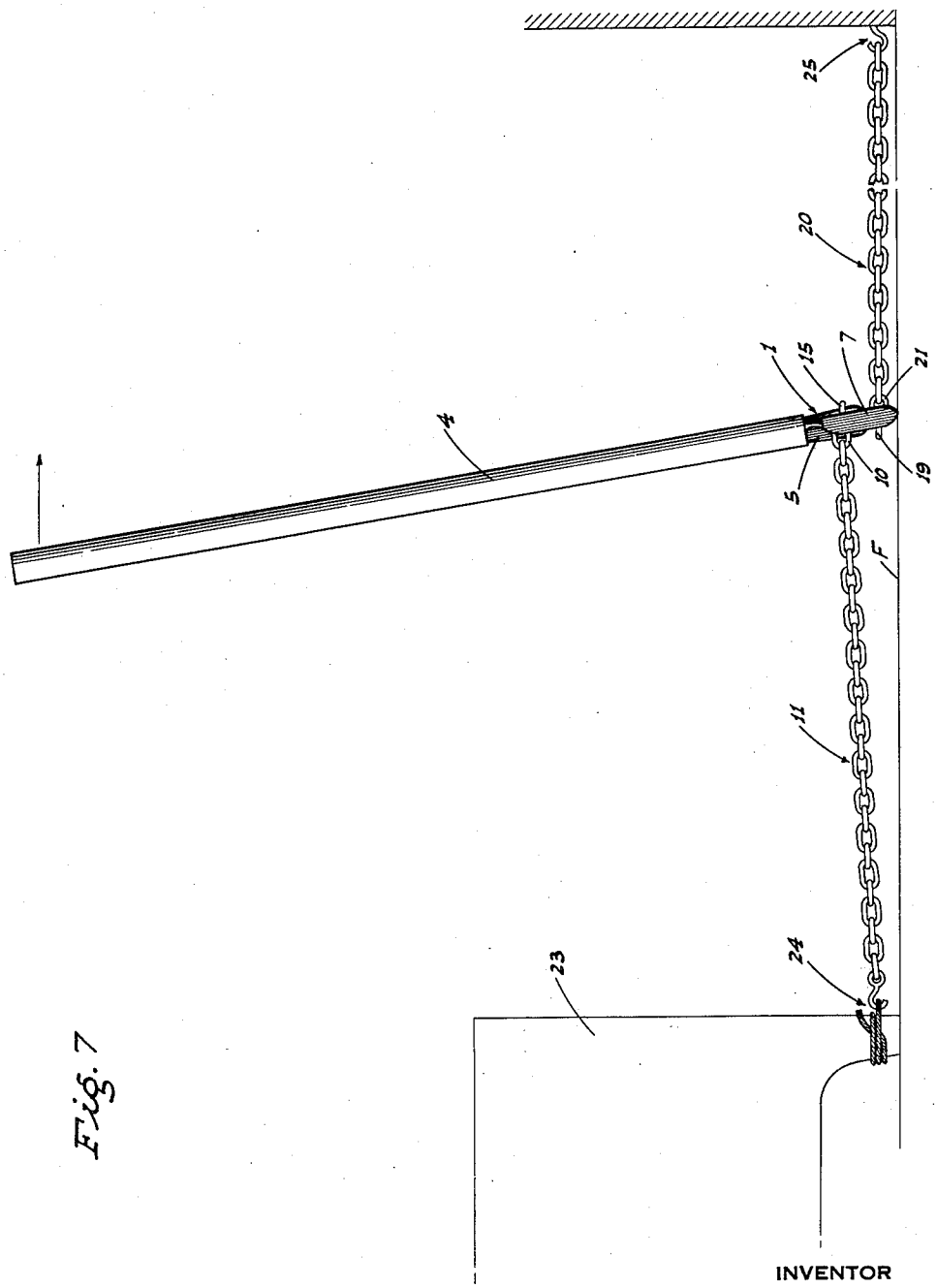


Fig. 7

INVENTOR
Wilson Call

BY
Wm. T. Webster
ATTYS

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2,704,200

CHAIN FORK

Wilson Call, Bakersfield, Calif.

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2 Claims. (Cl. 254—131)

This invention relates to hand tools; my principal object being to provide a lever-like tool arranged to be releasably engaged at spaced points in its length with standard link chains in such a manner that great leverage is obtained and may be exerted on one chain when the other one is anchored.

A further object is to arrange the fork so that either chain may be instantly engaged with or disengaged from the fork, and yet the chains will not of themselves tend to dislodge from their engaged position when the fork is in use.

The fork is, therefore, capable of different uses; for example, to shift or spot a piece of heavy machinery such as a machine tool on a shop floor; to lift one part of a machine from its base; as a field scales to roughly weigh sacks or boxes of produce or the like; and also, if necessary, as a pinch bar without any chains being attached thereto.

Still another object of the invention is to provide a chain fork which is practical, reliable, and durable, and one which is exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a rear end elevation of the chain fork, detached from the chains and the leverage-increasing handle.

Fig. 2 is a front end elevation of the fork.

Fig. 3 is a sectional elevation on line 3—3 of Fig. 2.

Fig. 4 is a transverse section on line 4—4 of Fig. 1.

Fig. 5 is a similar view on line 5—5 of Fig. 2.

Fig. 6 is a similar view on line 6—6 of Fig. 2.

Fig. 7 is a side elevation of the fork on a reduced scale, shown with the leverage-increasing handle attached thereto, and as engaged with a pair of chains arranged to shift a heavy body along a floor.

Referring now more particularly to the characters of reference on the drawings, the chain fork comprises an elongated body 1, the upper handle part 2 of which is rounded along its opposite edges, as at 3, to receive an elongated pipe handle 4 thereover, while the lower part 5 of the body is of rectangular form in section, with its outer side flush with the adjacent side of the handle and providing, at the top, upwardly facing shoulders 6 which limit the downward movement of the pipe. Also, the upper portion 2 is upwardly tapered, as shown, so as to have an initially loose fit in the pipe.

Projecting laterally from and included with the body portion 5, on the side thereof opposite said flush edge, is the hook forming member or web 7 extending some distance below said portion 5 with its upper end correspondingly below the lower end of handle 2. Said member is formed with upper and lower slots 8 and 9, respectively, which are alined with each other transversely but with their adjacent ends separated. The slots are open at their opposite ends, the inner wall of the slots being alined with the adjacent side of the handle 2. The width and length of slot 8 is such as to accommodate an edgewise link 10 of a standard link chain 11.

The rear face of web 7, back of and from the slot 8, is formed with a socket 12 which extends below slot 8 some distance and is formed with a longitudinal concavely curved bottom wall 13 and a transverse concave curvature 14 symmetrical relative to slot 8; the socket

being of sufficient width and shape to receive a crosswise link 15 of chain 11.

Similarly, the forward face of web 7, ahead of and from the slot 9, is formed with a socket 16 extending from the lower end of member 7 to a point some distance above slot 9, and formed with a longitudinal concavely curved bottom wall 17 and with a transverse concave curvature 18 symmetrical to slot 9; socket 16 being of sufficient width and shape to receive a crosswise link 19 of another chain 20 whose edgewise links 21 fit slot 9. The sockets are arranged so that the depth of the respective slots is less than the distance between the adjacent ends of adjacent crosswise links of the chains; the opposed faces of member 7, at the top and bottom portion of the slots 8 and 9, being concavely curved to follow the curvature of the bottom of the respective sockets, as clearly shown in Fig. 3, so as to maintain the desired relatively shallow slot depth for a major portion of the length of the slots.

The bottom of member 7, on both sides of slot 9, is shaped to provide a transverse fulcrum edge 22 about which the device may rock or swing when resting on a floor.

In operation, when the device is used as a load dragging tool, as shown in Fig. 7, chain 11 is attached at one end to the machine tool or other load 23 to be pulled in any suitable manner and preferably near the floor F; the point of attachment being indicated at 24.

The other chain 20 is anchored at its end furthest from load 23 and near the floor in any suitable manner, as indicated at 25. The lower slot 9 of the upstanding fork is then engaged over an edgewise link 21 of said chain, with a crosswise link 19 in the forwardly facing socket 16.

With said chain pulled taut and with the fork device disposed with a forward slope in the direction of the load to be pulled, as shown in Fig. 7, an edgewise link 10 of chain 11, at its end furthest from load 23, is then dropped through slot 8 from above with a crosswise link 15 occupying the socket 12 behind; the chain being first drawn as near taut as possible by hand.

It will be understood that socket 12 is freely open at its upper end, as shown in Fig. 2, while socket 16 is freely open at its lower end, as shown in Fig. 1, in order to receive the crosswise links of the respective chains into the upper and lower ends of sockets 12 and 16.

Handle 4 is then pulled back, and since the far end of chain 20 is anchored, the load 23 is pulled forwardly with a leverage whose power depends on the distance of the point of application of the pull on handle 4 from the point of connection of chain 20 with the fork relative to the distance along the fork of the points of connection of both chains therewith.

If it is desired to shift the load a greater distance than is possible with a single throw of the fork, the upper chain is disengaged upon return swinging of the fork following a pulling stroke thereof, and again drawn taut; a different pair of links being then engaged with the upper slot 8 and accompanying socket 12. The longitudinal concave curvature of the sockets tends to hold the chains properly centered therein, and prevents the lower chain, should it become somewhat slack at the fork, from readily dropping free.

While I have described the device as being attached to a bottom anchor chain, and an upper load engaged chain, this arrangement may be reversed with but a small sacrifice of leverage, as will be evident.

Also, the fork may be used horizontally, the anchor chain suspended from above, and the load engaging chain depending from the fork.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention, as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is

claimed as new and useful, and upon which Letters Patent are desired:

1. A chain fork comprising an elongated body having upper and lower portions, the lower portion including a longitudinal flat member and a web projecting laterally from one side of the member, the web being formed with upper and lower longitudinally alined spaced-apart relatively deep chain-link locating sockets facing in opposite directions, and with relatively narrow longitudinally alined and spaced-apart slots communicating with the bottom of the sockets to receive on-edge chain links; the slots being open at their opposite ends.

2. A fork as in claim 1, in which the sockets are formed with concavely curved bottoms extending lengthwise of the slots; the concave curvature of the lower

socket terminating at its lower end in a vertical plane, when the fork is in a vertical position, ahead of the bottom of the socket.

References Cited in the file of this patent

UNITED STATES PATENTS

1,119,783	Schulte	Dec. 1, 1914
1,391,746	McGuire	Sept. 27, 1921
1,758,744	Haubert	May 13, 1930
2,244,572	Rawlins	June 3, 1941
2,621,020	Call	Dec. 9, 1952

FOREIGN PATENTS

391	Great Britain	of 1894