(No Model.)

C. NYGAARD.

CANT HOOK.

No. 382,240. Patented May 1, 1888.

Fig. 1.

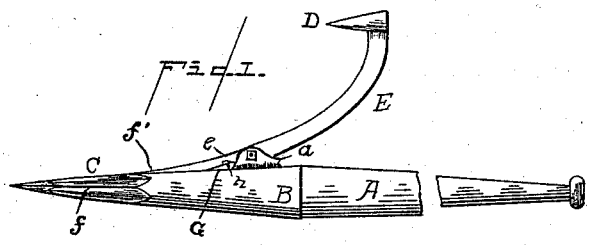


Fig. 2.

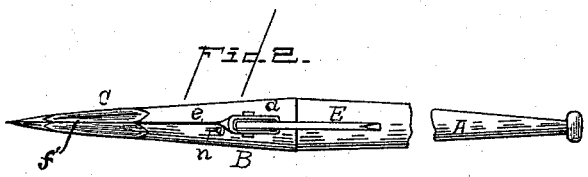


Fig. 3.

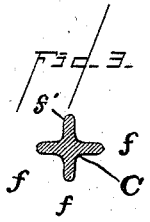
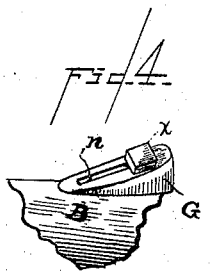


Fig. 4.



Witnesses.

Elmer Leach

J. H. Merrill

Inventor.

Christian Nygaard

per W. H. Waterhouse

Attorney.

UNITED STATES PATENT OFFICE.

CHRISTIAN NYGAARD, OF OSHKOSH, WISCONSIN.

CANT-HOOK.

SPECIFICATION forming part of Letters Patent No. 382,240, dated May 1, 1888.

Application filed January 25, 1888. Serial No. 262,021. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN NYGAARD, a citizen of the United States, residing at city of Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Cant-Hooks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in cant-hooks; and the objects of my invention are, first, in a cant-hook with pike, to provide a continuous and unbroken slide or bearing from the point of the pike to point of hook and thereby prevent the log or timber from catching or dragging until the hook is caught; second, to afford easy means of re-adjusting handle to socket; third, to more effectually fasten handle to socket and prevent loosening; fourth, in a pike integral with the socket, to minimize the weight of pike without materially decreasing the strength or necessitating a shoulder between pike and socket. I attain these objects by the construction illustrated in accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 a top view, of cant-hook; Fig. 3, cross-sectional view of the grooved pike; Fig. 4, an enlarged perspective view of lug with inclined face, in which the slot is cut, and its co-operating-screw.

Similar letters refer to similar parts throughout the several views.

A is the handle fitting into the socket B.

C is the pike, and *a* the clip integral with the socket.

E is the hook; *e*, the clip-brace; and *n*, the slot formed in a lug, G, integral with the socket, the top face of the lug where the slot is made inclining outwardly and rearwardly, as shown in Figs. 1 and 4. The clip-brace *e* strengthens the clip and forms a guide over the clip *a*, so that in using the cant-hook the clip will not catch against or strike into the bark or surface of the log and prevent the hook from catching properly.

I am aware that cant-hooks have heretofore been constructed with a pike integral with the socket; but they have been too heavy and unwieldy. A man using one of these tools naturally wants the lightest and most durable, and a few ounces difference in weight make a great difference in the choice of tools to a skillful workman. To reduce the weight of the pike others have heretofore "squared" the pike; but the top and bottom faces of the pike have been at right angles with the hook, presenting a flat surface to the surface of the log and not presenting a direct incline upwardly upon the engaging side, or entirely doing away with the shoulder between the pike and socket.

My improvement consists in having the pike grooved longitudinally, one of the projections or braces, *f'*, being toward the hook upon the engaging side and in a perpendicular line with the line of the arc described by the hook, as shown in the sectional view, the other projections, *f f f*, having their top edges on the same incline as the main body of the socket, Fig. 3. The grooves incline upwardly to the plane of the socket. I thereby do away with any shoulder whatsoever between the socket and pike and provide a direct incline upwardly. By this means and by means of the clip-brace *e*, I provide an unobstructed bearing against the log until the point of the hook D strikes into the log, thereby more fully adapting the cant-hook to small logs and square timber and to logs with a rough bark or surface. The pike being grooved, as shown in Figs, 1 and 2, at C, and in sectional view, Fig. 3, reduces the weight considerably more than a squared pike without materially reducing the strength thereof, or necessitating a shoulder between pike and socket. This improvement in the pike is also applicable to landing-hook pikes, and I wish to make my claim to cover those also.

Fig. 4 is an enlarged perspective view of the slotted lug for locking the socket. *x* is an iron screw with a square head. *n* is the oblong slot-hole. The screw *x* screws into the wooden handle to fasten it to the socket. By loosening the screw the handle may be forced farther into the socket to tighten it, the bolt sliding down the inclined slot *n*. The face of the slotted lug is inclined toward the pike. This renders the screw-head less liable to slip, as any force applied to extract or loosen the han-

dle when the bolt is screwed down causes the screw-head to bear upwardly against the incline, forming a wedge bearing. I construct the slot alongside of the clip-braces as shown at *n*, Figs. 1 and 2. The clip-brace protects it and prevents the screw-head from striking against the log. This improvement provides an easy, simple, and convenient mode of fastening the handle to the socket, and is applicable to landing-hooks, handspikes, and the like.

Therefore what I claim as my invention, and desire to secure by Letters Patent, is—

1. In a cant-hook, the combination of the handle, the hook, and the socket, with a grooved pike, the grooves being longitudinal and inclining upwardly to the plane of the socket, and with one of the projections of the pike upon the engaging side toward the hook, and a clip-brace forming a continuous slide or bearing and protecting the clip, substantially as shown, for the purpose specified.

2. In a cant-hook, the combination, with a handle, of a socket provided with a slot, the walls of the slot inclining outwardly at an angle with the face of the socket, and a screw passing through the slot and engaging the handle, the head of the screw bearing on the inclined walls of the slot, as and for the purpose set forth.

3. In a cant-hook or the like, a socket provided with a grooved pike, the edges of the grooves in said pike forming a substantially straight line with the body of the socket, whereby said socket presents a straight engaging-face to a log, and the weight of the socket is minimized.

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

CHRISTIAN NYGAARD.

Witnesses:

ELMER LEACH,

A. LEACH.