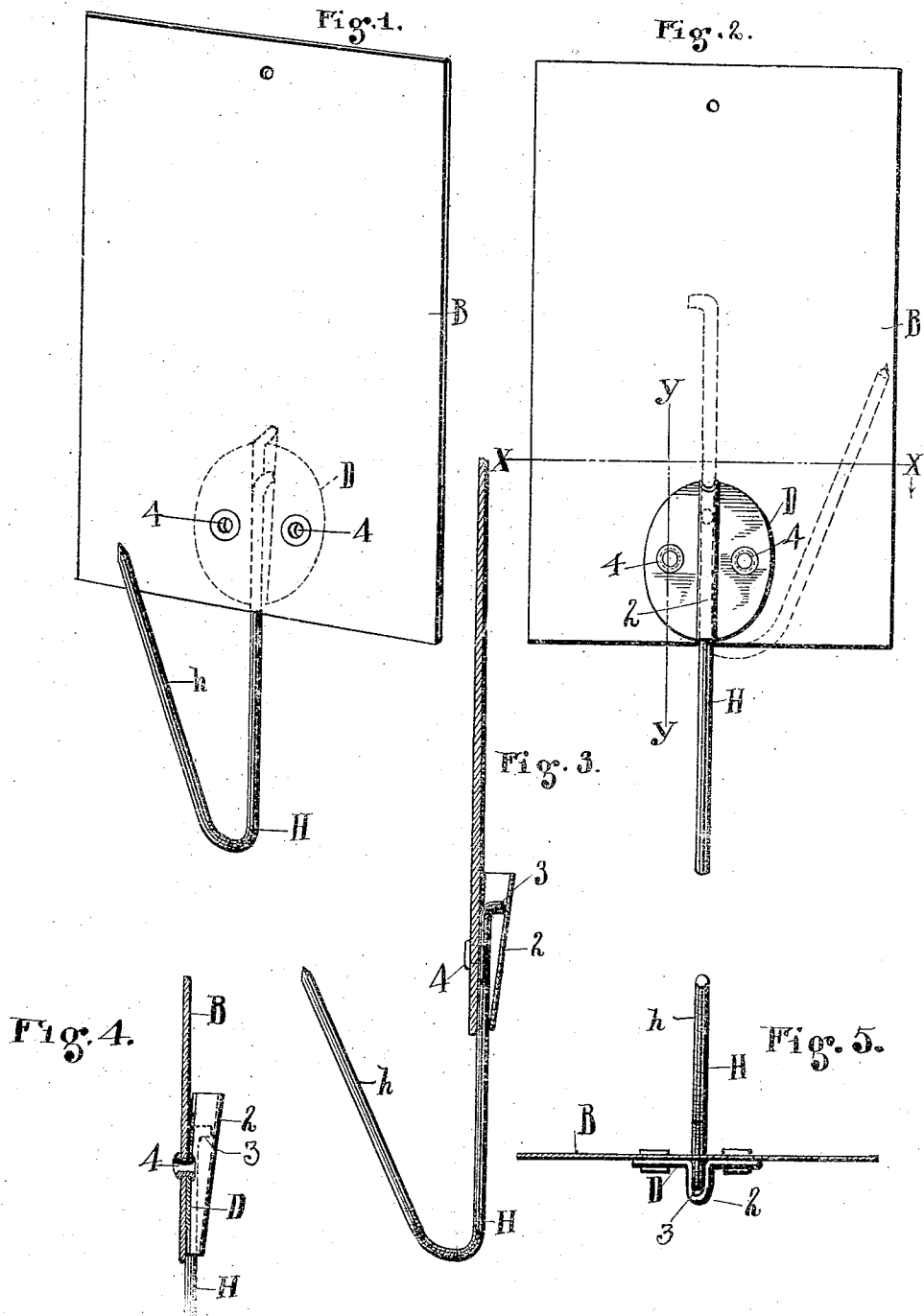


935,997.

Patented Oct. 5, 1909.



ATTEST
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UNITED STATES PATENT OFFICE.

CONRAD J. KORTZ, OF CLEVELAND, OHIO.

BILL-HOOK.

935,997.

Specification of Letters Patent.

Patented Oct. 5, 1909.

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To all whom it may concern:

Be it known that I, CONRAD J. KORTZ, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Bill-Hooks, of which the following is a specification.

My invention relates to an improvement in bill-hooks of the type or style having a hook adapted in use to be locked against lateral rotation and when not in use to be raised and rotated to folding position against the side of its support, all substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the device complete, showing the parts as in using relation, and Fig. 2 is a plain elevation thereof with the hook open in full lines and folded in dotted lines. Fig. 3 is a sectional elevation centrally thereof, and Fig. 4 is a sectional elevation on line *y-y*, Fig. 2, and Fig. 5 is a cross section on line *x-x*, Fig. 2.

The complete device as it goes to the trade and as used comprises a back-board or plate B, which may be of any suitable material but usually of card-board, a hook or hook member H, and a securing disk or plate D for the hook, fastened by means of eyelets 4, or their equivalent, at opposite sides of its center to said board or back B. The said disk usually is of suitable sheet metal and the first and essential departure from the prior art as disclosed in this device is in the channel or groove, or rib 2 constituting the groove. Now, I am aware that disks or plates with some sort of channel therein for a kindred purpose are not broadly new at this time, and I might mention a number of different patented devices showing such disks with grooves or channels. But all are materially different from mine, or rather, mine is materially different from all others familiar to me and possesses features of construction and advantages in use not present in any other device of this kind with which I am familiar. Thus, to be specific, the said groove or rib 2 first of all is tapered uniformly from top to bottom with a substantially wedge like taper. At its lower end the groove or channel is just large enough to accommodate the wire stem or shank of the hook or hook member, while the upper end of said stem is fashioned with a right angled extremity, or has its end bent out-

ward at right angles about the depth of the top of the said groove less the thickness of the wire itself. Said groove therefore has substantially flat sides, as seen especially in Fig. 5, so that when the end 3 enters the same it finds itself within confines at said sides which serve as rigid guides for the hook and prevent its turning to either right or left.

In use the hook is first swung to the center or quarter way around from the back-board, as seen in the drawings, and then drawn down to engage the locking and guiding end 3 in the top of groove 2. This done, two things are accomplished, that is, the hook is definitely centered for service and rigidly held as against lateral swing or play, and at the same time brought into tightening relations with the disk and back which can only become tighter and firmer as the hook is drawn lower in the groove. In fact the hook is about as far down as seen in Fig. 3 as it can be drawn, even by a strong pull of the hand, and in this position it is so firmly locked that it is perfectly rigid in all directions. Obviously, there can be no spreading or surrender of the groove itself, and the only other possible surrender must be in back board B, but this board is not only rigid and firm as a part, but the space between the eyelets 4 is so narrow that there really is no room for any material or even appreciable bending or yielding therein which might allow the hook to be drawn down, say past the line of the rivets. In fact the groove 2 fits the stem of the hook so snugly at all times that when the hook is retired and folded, dotted lines, Fig. 2, it is held frictionally in that relation until again drawn down by hand.

It is to be noticed as material to this construction that the rib 2 is integral and entire its whole length and is not weakened at any point by an incision, recess, or other weakening construction of any kind. On the contrary, said rib contributes very materially to the strength of the device as a whole by reason of its wedge shape and unitary and unbroken construction from end to end. In fact this construction is unique and original in this particularly, that said rib has a straight continuous wedge shaped back against which the extremity 3 impinges and holds by friction at all places and there is no shoulder, offset, or the like for it to drop into and stop whether it be fast or loose

therein. In other words the fastening comes exclusively in and by the wedge shape or incline of the groove in which the stem of the hook with its right angled or rearward projection 3 engages, said projection lying of course in the same vertical plane as the hook portion 4. And it will be noted that the rib 2 is rounded, see Fig. 5, so that the sharp end edges of the right angled extremity 3 will take a better bite or hold and tend to more effectively lock the hook rigidly in position.

What I claim is:

1. A bill-hook comprising a card and a plate secured thereto having a wedge shaped channel, combined with a hook member having one extremity bent at an angle with its end face and end edges adapted to have slidable and wedging engagement with said plate.

2. A bill-hook comprising a back-board and a metallic plate secured thereto having a grooved rib portion struck up therefrom and tapered uniformly from top to bottom with a substantially continuous wedge like taper, combined with a hook member of wire slidably and rotatably mounted within the grooved portion of said plate and provided with an angled extremity having an end face with sharp end edges adapted to lie in close engagement with the side walls of said grooved portion and said extremity being

substantially as long as the deepest part of said groove, whereby the hook member may be tightly wedged against rotation and end movement in respect to said back-board.

3. A bill-hook comprising a board and a plate secured thereto on its back having a struck up groove and rib of tapering formation centrally of said plate, combined with a hook member adapted to lie flush upon the board in one position and project at right angles thereto in another position, said member having an angularly bent portion provided with angular edges at its extreme end and adapted to make wedging engagement with the tapering wedge portions of said plate.

4. A bill-hook comprising a card and a plate secured thereto having a struck-up groove and rib of gradual taper and wedge formation on a straight unbroken line from top edge to bottom edge, said groove and rib having straight sides and a rounded back, combined with a hook member having its extreme upper end bent at right angles to permit wedging engagement of its end face therein with said rounded back.

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

CONRAD J. KORTZ.

Witnesses:

E. M. FISHER,
F. C. MUSSUN.