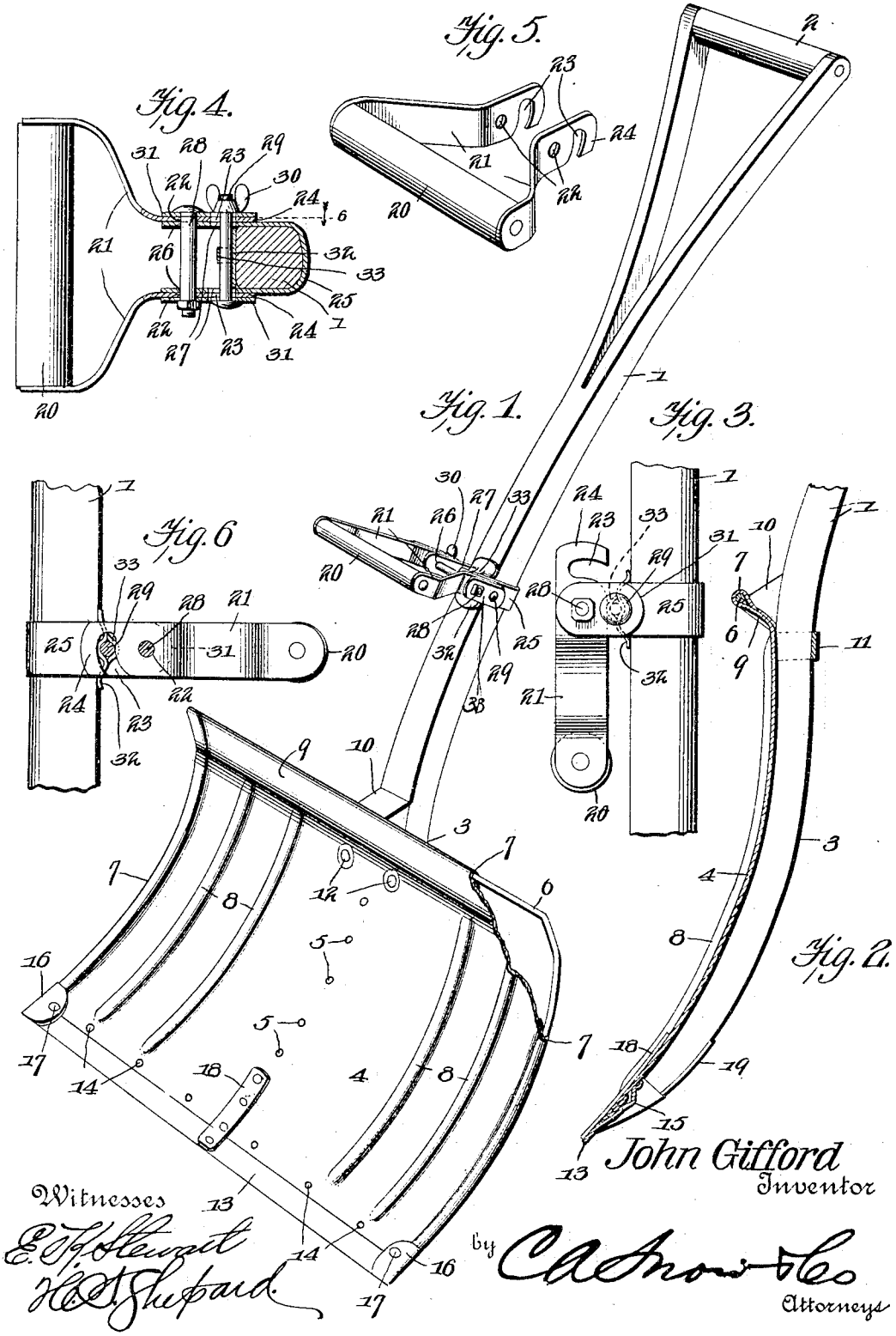
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J. GIFFORD.

SNOW SHOVEL.

APPLICATION FILED JUNE 25, 1904.



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UNITED STATES PATENT OFFICE.

JOHN GIFFORD, OF WATERTOWN, NEW YORK.

SNOW-SHOVEL.

SPECIFICATION forming part of Letters Patent No. 781,772, dated February 7, 1905.

Application filed June 25, 1904. Serial No. 214,163.

To all whom it may concern:

Be it known that I, JOHN GIFFORD, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented a new and useful Snow-Shovel, of which the following is a specification.

This invention relates to shovels, and is designed to provide an improved device particularly adapted as a snow-shovel.

The object of the invention is to provide a novel form of handle which is adjustable upon the handle-bar and is capable of being folded against the handle-bar and also removed therefrom when not required for use.

With this object in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a snow-shovel embodying the features of the present invention, portions of the blade being broken away to disclose the wire frame. Fig. 2 is a longitudinal sectional view taken through the blade. Fig. 3 is a detail side elevation showing the adjustable handle folded against the handle-bar. Fig. 4 is a transverse sectional elevation taken through the adjustable handle in its operative position. Fig. 5 is a detail perspective view of the hand-grasp frame removed. Fig. 6 is a detail sectional view taken on the line 6 6 of Fig. 4.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

The present device embodies a handle-bar 1, which is preferably formed of wood and provided at its rear terminal with a stationary hand-grasp 2 and having its forward end bowed, as at 3, to present a concaved upper face and form a seat to receive the back of the concaved shovel-blade 4, which is formed of a single piece of sheet metal, preferably galvanized and connected to the bowed portion of the handle-bar by a series of suitable fastenings 5, preferably in the nature of rivets. The back and longitudinal side edges of the blade are stiffened by a yoke-shaped wire frame 6, over which the edges of the blade are folded or beaded, as indicated at 7. At opposite sides of the longitudinal center of the blade there are longitudinal upstanding stiffening-ribs 8 formed in the blade. The rear edge portion of the blade is bent into a transverse upstanding shoulder 9, and a chock or brace-block 10 is secured to the upper side of the handle-bar and against the back of the shoulder 9 to constitute a brace therefor. A substantially U-shaped clip 11 embraces the handle-bar and is secured to the under side of the blade by suitable fastenings 12 at the bottom of the shoulder 9. The front edge of the blade is reinforced by a metal shoe or reinforcing-strip 13, which projects in front of the blade and underlaps the same, with rivets 14 set through the blade and shoe to rigidly connect these members. In rear of the front edge of the shovel-blade the shoe is bent to form a longitudinal rib 15, and the ends of the shoe are bent over the respective edges of the blade, as indicated at 16, and secured in place by the respective rivets 17. A brace-strip 18 is secured to the upper face of the blade and the shoe at the middle of the latter, and a wear strip or plate 19 is secured to the under side of the forward end of the handle-bar. By this construction the shovel-blade is effectually braced throughout its entire periphery and is made up entirely of metal parts, whereby it presents a stiff blade capable of withstanding general wear and usage.

The adjustable handle member of this invention includes a hand-grasp 20, which is secured between the diverged ends of the frame members 21, the other ends of the frame members being brought into a comparatively close relation and provided with corresponding openings 22 and corresponding arcuate slots 23 struck from the openings as centers and intersecting the front edges of the frame members, thereby producing hooks 24, which are located upon the free extremities of the frame members. This hand-grasp is carried

by a yoke or substantially U-shaped clip 25, which slidably embraces the handle-bar from its rear under side and has its end portions projected beyond the bar and provided with corresponding perforations 26 and corresponding longitudinal slots 27. A rod or bolt 28 is passed through the openings 22 of the frame members and the outer openings 26 of the clip, with the frame members of the hand-grasp located at the exterior of the clip, whereby the hand-grasp is capable of being swung upon the bolt as a pivotal support. A clamping-bolt 29 is passed through the slots 27 of the clip and is provided upon one end with a winged nut 30, while washer-plates 31 receive the opposite ends of the two bolts and lie at the outer sides of the frame members of the hand-grasp, so as to coöperate with the sides of the clip and form guides between which the hooked ends of the frame members are designed to work. The two bolts 28 and 29 are spaced to permit of the hooks 24 engaging beneath the bolt 29 when the hand-grasp is swung to a position at substantially right angles to the handle-bar and is capable of being rigidly held in this position by tightening the winged nut 30. When not required for use, the winged nut may be loosened and the hand-grasp folded flat against the handle-bar, as indicated in Fig. 3 of the drawings. A washer 32 or wear-plate is fitted between the bolt 29 and the handle-bar and is provided with a clip or loop 33 to embrace the bolt and connect the washer thereto, thereby to obviate damage to the wooden handle-bar when the adjustable hand-grasp is clamped thereon. It will here be noted that the walls of the slots 23 operate as cams against the bolt 29 when the hand-grasp is being turned into a position at substantially right angles to the handle-bar and force the bolt and the washer 30 into snug engagement with the handle-bar, so as to clamp the latter between the washer 31 and the back of the clip 25 to rigidly interlock the hand-grasp with the handle-bar at any desired position upon said bar.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A handle comprising a substantially U-shaped clip to embrace a handle-bar, a clamping-bolt connecting the sides of the clip intermediate of its ends, a frame having its opposite sides pivoted to the respective sides of the clip, a hand-grasp carried by the outer end of the frame, and a hook carried by the inner end of the frame to engage the clamping-bolt and support the frame in its operative position, the frame capable of being swung upon its pivotal connection with the clip to disengage the hook from the clamping-bolt and fold the handle.

2. In a shovel, the combination with a handle-bar, of a substantially U-shaped clip slidably embracing the handle-bar with its ends projected at one side thereof and provided with corresponding longitudinal slots, a clamping member mounted in said slots, and a hand-grip frame pivoted upon the projected ends of the clip and having a cam portion to engage the clamping member and clamp the same against the handle-bar.

3. In a shovel, the combination with a handle-bar, of a substantially U-shaped clip slidably embracing the handle-bar with its ends projected at one side thereof and provided with corresponding longitudinal slots, a bar slidable in the slot, a wear-plate carried by the bar and in frictional engagement with the handle-bar, and a hand-grip frame pivoted to the clip and provided with a cam portion to engage the bar and clamp the wear-plate against the handle-bar.

4. In a shovel, the combination with a handle-bar, of a substantially U-shaped clip slidably embracing the handle-bar with its ends projected at one side thereof and provided with corresponding longitudinal slots, a clamping-bar slidable in said slots and capable of frictional engagement with the handle-bar, and a hand-grip frame pivoted upon the projected ends of the clip and provided with cam-slots receiving the bar, corresponding edges of the slot constituting cams in engagement with the bar to force the same into engagement with the handle-bar.

5. In a shovel, the combination with a handle-bar, of a substantially U-shaped clip slidably embracing the handle-bar with its ends projected at one side thereof and provided with corresponding longitudinal slots, a hand-grip frame applied to the projected ends of the clips, a pivot-bolt piercing the ends of the clip and the hand-grip frame whereby the latter may be folded against the handle-bar, a nut upon the pivot-bolt to clamp the hand-grip frame against the clip in either position thereof, a clamping member slidable in the slots of the clip in frictional engagement with the handle-bar, and a cam upon the hand-grip frame in coöperative relation with the clamping member.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN GIFFORD.

Witnesses:
CARL NILL,
J. G. EVENS.