D. B. WING.

IMPLEMENT HOLDER.

APPLICATION FILED OCT. 17, 1910.

1,000,704. **Patented Aug. 15, 1911.**

2 SHEETS—SHEET 1.

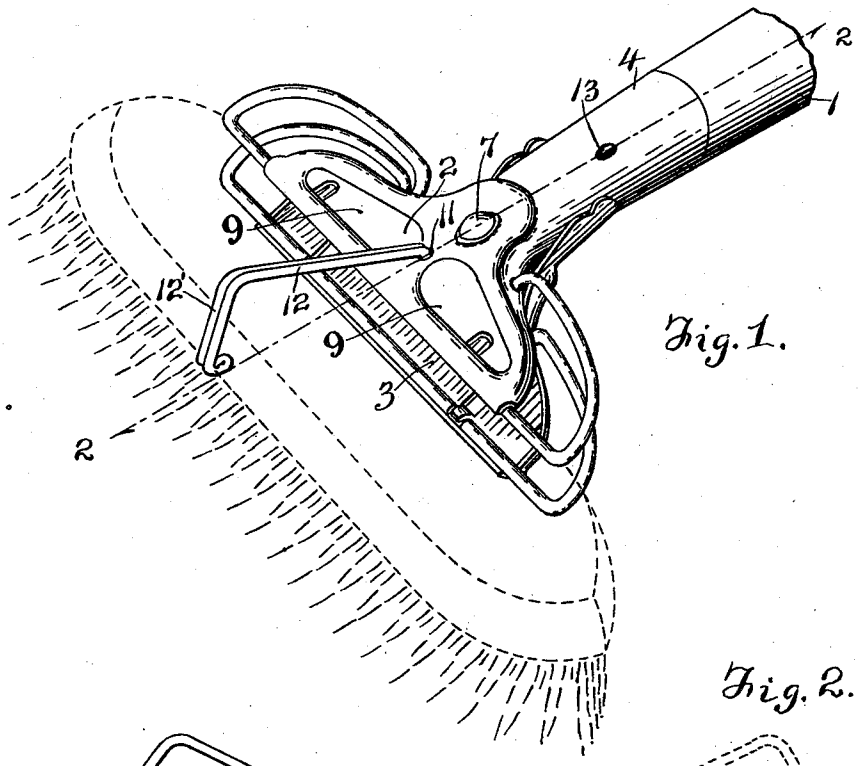


Fig. 1.

Fig. 2.

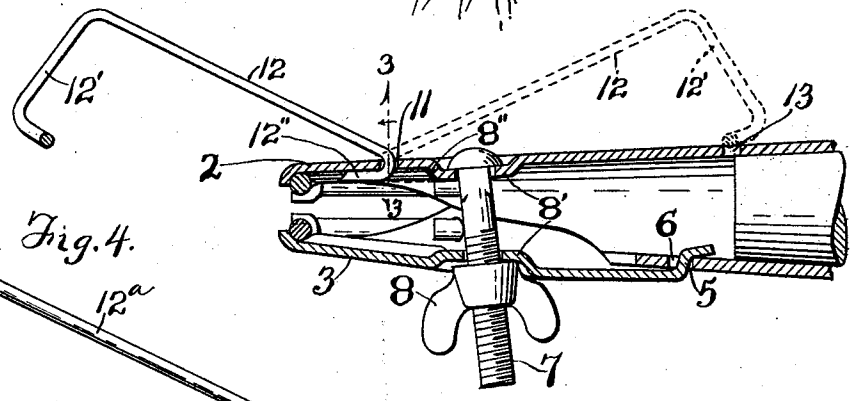


Fig. 4.

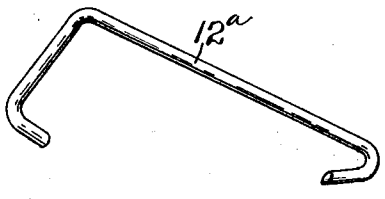
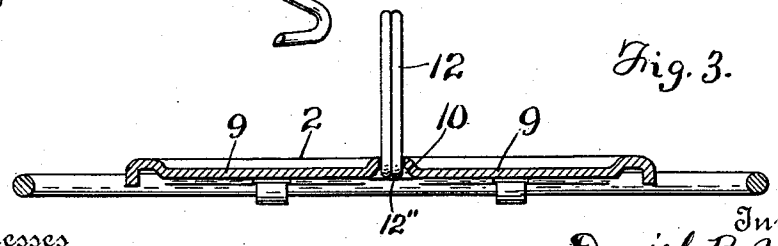


Fig. 3.



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2 SHEETS—SHEET 2.

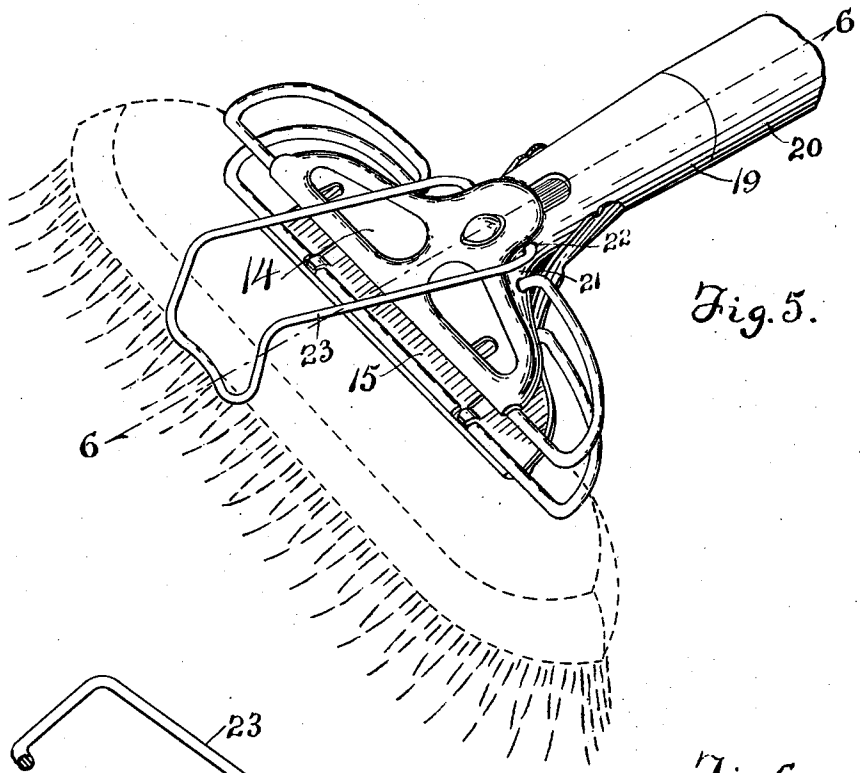

Fig. 5.

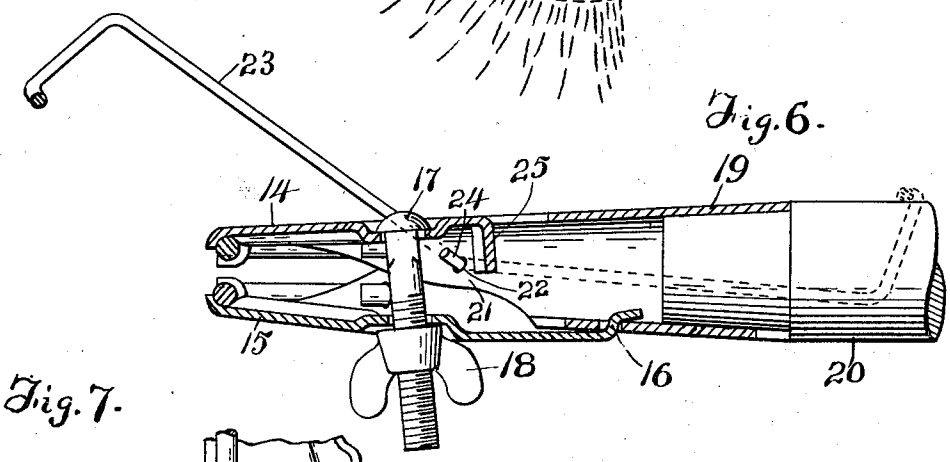

Fig. 6.

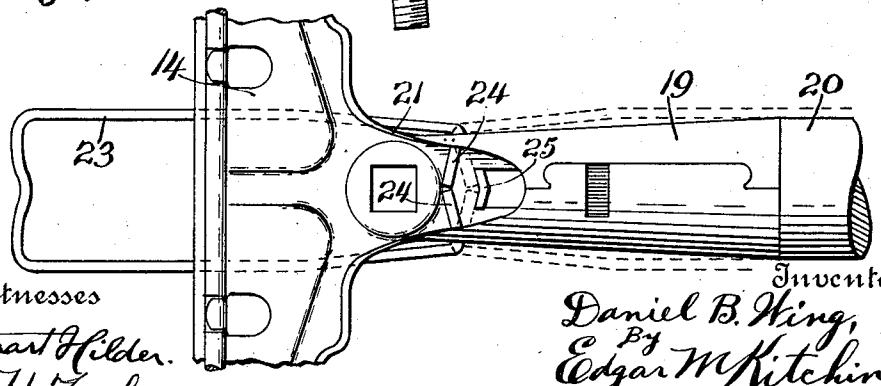

Fig. 7.

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UNITED STATES PATENT OFFICE.

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IMPLEMENT-HOLDER.

1,000,704. Specification of Letters Patent. **Patented Aug. 15, 1911.**

Application filed October 17, 1910. Serial No. 587,595.

To all whom it may concern:

Be it known that I, DANIEL B. WING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Implement-Holders; and I do hereby 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.

The object in view is the provision of an auxiliary gripping device in combination with a main gripping device, which auxiliary gripping device is susceptible of being shifted to an out-of-the-way position and adapted to be held in such position by means formed on the main gripping device.

With this and further objects in view as will in part hereinafter become obvious and in part be set forth, the invention comprises certain novel constructions, combinations and arrangements of parts as herein specified and claimed.

In the accompanying drawings,—Figure 1 is a perspective view of an embodiment of the present invention. Fig. 2 is a longitudinal, vertical, central section therethrough taken on the plane indicated by line 2—2 of Fig. 1, parts being seen in elevation. Fig. 3 is a transverse, vertical section taken on the plane indicated by line 3—3 of Fig. 2. Fig. 4 is a detail, perspective view illustrating a modified embodiment of the hook. Fig. 5 is a view similar to Fig. 1 of a further modified embodiment of the invention. Fig. 6 is a longitudinal, central, vertical section taken on the plane indicated by line 6—6 of Fig. 5, parts being seen in elevation. Fig. 7 is an inverted, plan view of the parts seen in Figs. 5 and 6, fragments of one of the main clamping jaws being broken away, the other main jaw being omitted.

Referring to the drawings, 1 indicates a shaft or handle which carries the main clamping device consisting of a pair of clamping jaws 2 and 3, the jaw 2 being preferably formed integral with a sleeve 4 which surrounds and is fixed to the end of the handle 1. Each of the jaws 2 and 3 is preferably formed of stamped plate material and the jaw 3 is pivoted to jaw 2 by any of various ways, as by the provision of a tongue 5 on jaw 3 extending through a slot 6 in sleeve 4. Both of the jaws 2 and 3 are apertured for receiving an operating bolt 7 which is provided with the usual head at one end and at the other end is engaged by an actuating nut 8. Each of the jaws 2 and 3 is formed with the material surrounding the respective bolt receiving aperture stamped toward the other jaw producing a depression 8′, the inner surface of the wall of the depression 8′ of jaw 2 being inclined as at 8″ in front of the bolt 7. The material of the jaw 2 is stamped with depressions 9, 9, at each side of the median line leaving along such median line a raised portion providing a groove 10 in the under face of the jaw.

An aperture 11 is formed through the material of the jaw 2 at a point spaced between the bolt 7 and the outer edge of the jaw, the said aperture opening into the groove 10. An auxiliary clasping member or hook 12 is formed preferably of a rod bent into parallel members and the parallel members bent into the hook 12′ at its outer end, and at its inner end extending through the aperture 11 and below the aperture bent to form the retaining member 12″.

As clearly indicated in Fig. 4, the auxiliary hook, of course, may be formed of a single rod 12^a instead of parallel portions of a rod as above specified, but I find that by providing the parallel portions the hook member is given sufficient width for bearing purposes which increase the efficiency of the retaining member 12″. The end portion of the hook 12 constituting the retaining member 12″ is merely a straight section of the rod forming the hook disposed parallel to the under face of the plate forming jaw 2 and normally lying within the groove 10.

In operation, the main jaws 2 and 3 may be caused to clasp the edge of the back of a brush, as indicated in Fig. 1, and the hook member 12 disposed to engage the other edge of the back of the brush, and the nut 8 then tightened down for firmly clasping the brush by the implement holder. To release the brush it is only necessary to unscrew the nut 8 sufficiently for releasing the jaws 2 and 3, and the hook member will itself become loosened. Then if it is desirable to apply the implement holder to a mop or other implement, which does not require the

use of the hook 12, it is only necessary to swing the hook horizontally about a vertical axis from the position indicated in full lines in Fig. 2 to the position indicated in dotted lines therein. As the hook member is swung to this out-of-the-way position the retaining member is sprung downwardly out of the groove 10 and slides about the depressed surface 9 until the hook arrives in its out-of-the-way position, whereupon the retaining member 12″ springs back into the groove. The free end of the retaining member 12″ is beveled or inclined corresponding to the incline of the portion 8″ and snugly fits against the same when the hook member is in the out-of-the-way position. Thus the hook member is firmly retained against accidental dropping down and interfering with the operation of the mop or other implement. However, to further insure against accidental displacement of the hook member from the position indicated in dotted lines in Fig. 2, the sleeve 4 may be formed with an aperture 13 into which the free end of the hook member 12 may be sprung when brought to the out-of-the-way position. It is to be noted that the employment of the parallel sections of a rod is preferable to the employment of a single round rod, as the parallel sections provide substantially the function of a flat rod or plate-like member by giving greater width to the hook member than the thickness of the rod itself whereby a substantially flat fit is provided between the retaining member 12″ and the material of the jaw 2 forming the groove 10.

The present invention is comprehensive of course of numerous embodiments, and one additional form is illustrated in Figs. 5, 6 and 7, which is the same form as that shown and specifically claimed in my companion application filed October 14, 1910, Serial No. 587,059, in which companion application the specific embodiment illustrated in said Figs. 5, 6 and 7 has been claimed but not the generic embodiment inclusive of the broad principle of the invention. In said Figs. 5, 6 and 7, are shown the main clamping jaws 14 and 15, corresponding to jaws 2 and 3 having a similar pivotal connection 16, an operating bolt 17 with its nut 18 and the sleeve 19 connecting the main clamping member to the handle 20. The plate constituting the material of which jaw 14 is formed is stamped at the rear of the jaw proper with vertical side portions 21, 21, each apertured as at 22. An auxiliary hook member 23 is formed of a rod bent into the form of a hook at its outer portion and having parallel members extending to the rear of the jaw 14, the end portions of such parallel members being bent toward each other into inwardly turned sections 24, 24, extending through the respective apertures 22. The sections 24 are inclined or set at an angle with respect to each other. A projection or extension 25 is stamped from the material of the jaw 14 downwardly past the planes of the sections 24, the said extension 25 being bent transversely into a widened V-shape corresponding to the inclined relation of the sections 24.

The hook member 23 is adapted in operation to be applied to a brush substantially in the same manner as the hook member 12, but the member 23 is adapted for having a vertical swing on a horizontal axis in being applied or removed. When it is desired to utilize the clamping jaws 14 and 15 without using the hook member 23 the said member is swung to a rear position, for instance in contact with the handle 20 as indicated in dotted lines in Fig. 6, in which position the terminal sections 24 lie in contact with the adjacent inclined faces of the projection or extension 25, the said faces being disposed parallel to the respective sections 24 and thus serving to retain the hook member in the out-of-the-way position, it being obvious that in starting to elevate or swing the hook member from the dotted line position in Fig. 6 to the full line position therein that the terminal sections 24 will be sprung in being moved away from the extension 25. It is to be noted that by thus providing for the retention of the auxiliary hook member in the out-of-the-way position by means engaging the inner end portion of the hook member, difficulty which has heretofore been experienced in proposed structures providing for the retention of an auxiliary hook member in an out-of-the-way position by spring contact or clasping action against the handle is fully obviated, such proposed structures having afforded some difficulty by reason of variation in the size of the handles and lack of adaptation of a particular hook to a given handle.

What I claim is:—

1. In an implement holder, the combination with main clamping jaws, one of said jaws being formed with a groove and an aperture leading through the material of the jaw into the groove, of an auxiliary clamping hook having an end portion extending through the aperture and bent to lie within said groove, the hook being adapted to swing pivotally about the aperture as an axis.

2. In an implement holder, the combination with main clamping jaws, the material of one of said jaws being formed with a groove and an aperture opening into the groove and said material being formed with an inclined wall at one terminus of the groove, of an auxiliary hook extending through the aperture and having an end portion disposed within the groove and formed with an inclined end corresponding to and adapted to engage the inclined por-

tion at the end of the groove, the hook being adapted to swing pivotally about the aperture as an axis.

3. In an implement holder, the combination with main clamping means having a groove of greater width than depth, of an auxiliary clamping means pivotally connected to the main clamping means and having a retaining member of greater width than thickness lying within said groove.

4. In an implement holder, the combination with main clamping means formed with a groove of greater width than depth, of an auxiliary clamping hook pivotally engaging said main clamping means and comprising a rod bent into parallel sections having end portions extending into said groove.

5. In an implement holder, the combination of pivotally connected jaws, and an auxiliary hook pivotally engaging one of the jaws and having a portion extending beyond the pivot and material of the jaw disposed in the path of movement of the portion of the hook extending beyond the pivot for forming a detent therefor.

6. In an implement holder, the combination with pivotally connected clamping jaws and a bolt connection between the jaws for actuating the same, of a hook pivotally engaging one of the jaws and spaced from the bolt, the jaw engaged by the hook being formed with material disposed in the path of pivotal movement of a portion of the material of the hook for forming a detent for the hook.

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

DANIEL B. WING.

Witnesses:
GEORGE E. FINK,
JOEL W. S. FLESH.