

(No Model.)

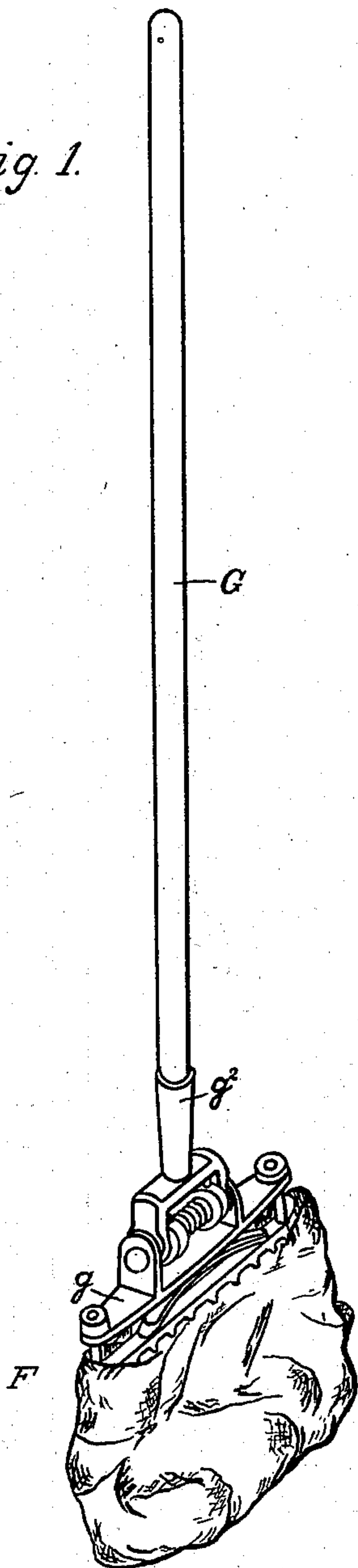
2 Sheets—Sheet 1.

H. A. WOLFF.  
MOP.

No. 559,092.

Patented Apr. 28, 1896.

*Fig. 1.*



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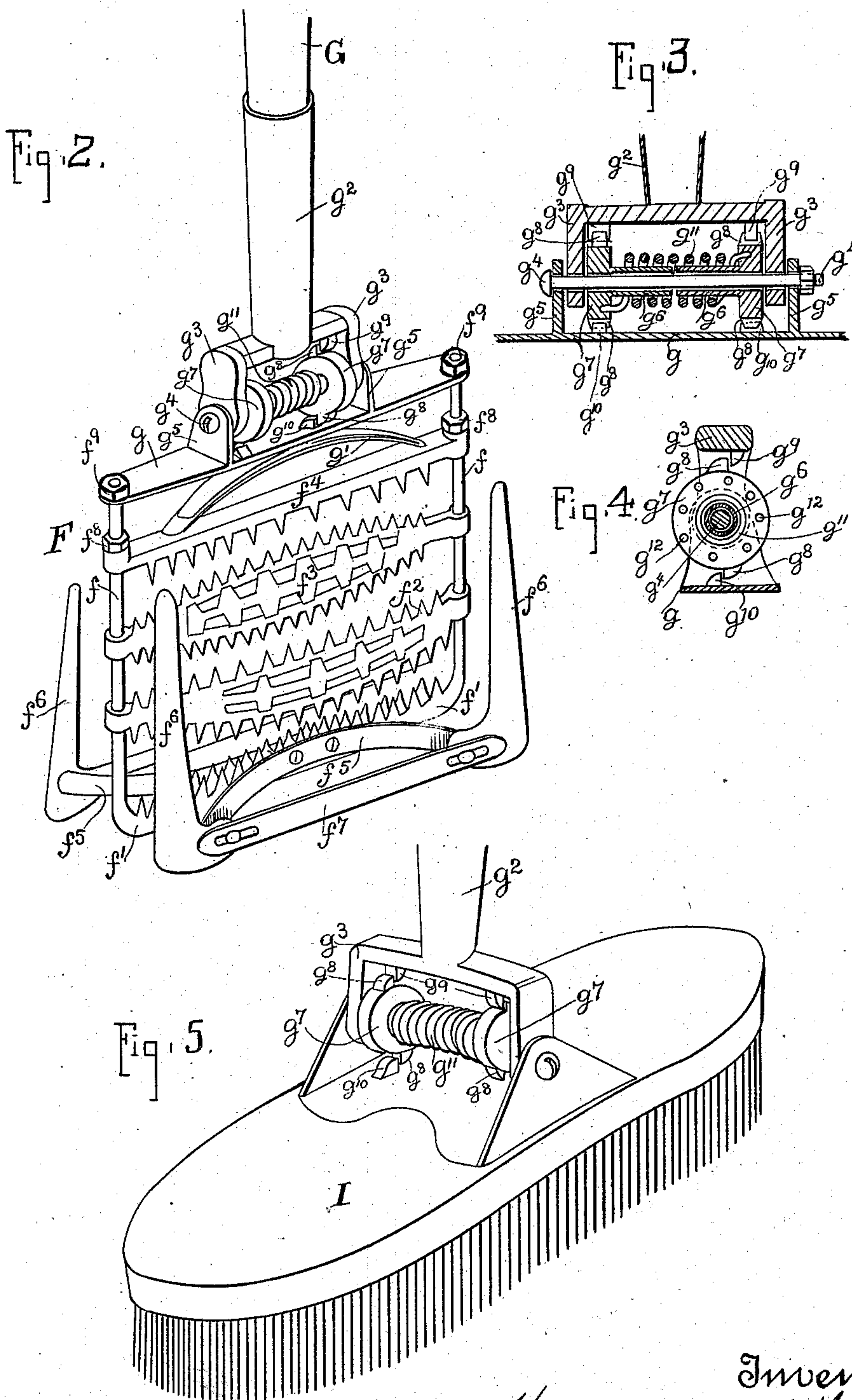
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J. H. B. B. B.  
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Inventor,  
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# UNITED STATES PATENT OFFICE.

HERRMANN A. WOLFF, OF SACRAMENTO, CALIFORNIA.

## MOP.

SPECIFICATION forming part of Letters Patent No. 559,092, dated April 28, 1896.

Application filed April 22, 1895. Serial No. 546,739. (No model.)

*To all whom it may concern:*

Be it known that I, HERRMANN AUGUST WOLFF, a citizen of the United States, residing at Sacramento, county of Sacramento, State of California, have invented an Improvement in Mops; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of mops; and it consists in the novel construction and arrangement of the mop-frame which I shall hereinafter fully describe.

The object of my invention is to provide a mop the frame of which is adapted to receive and to hold the mop material to the best advantage, enabling it to yield properly for the purpose of reaching corners and similar inaccessible places, and to provide a handle for said mop adapted to be adjusted with relation thereto and of a length sufficient to enable the operation to be carried on without stopping.

Referring to the accompanying drawings, Figure 1 is a perspective view of my completed mop. Fig. 2 is a perspective view of the mop-frame. Fig. 3 is a longitudinal section of the handle connection. Fig. 4 is a cross-section of the same. Fig. 5 is a view showing the application of said connection to a brush.

The mop F, as seen in Fig. 1, consists of a mass of suitable material, such as knitted stuff, preferably cotton or rags of any kind, or any suitable substance adapted to be wound about the frame of the mop.

The mop-frame, which I shall now describe by reference to Fig. 2, consists of two standards  $f$  and a toothed base  $f'$ . Upon the standards is adapted to fit and slide freely a cross-bar  $f^2$ , having teeth on both sides, the lower side of the cross-bar being downwardly curved or convex and the upper side straight. A second cross-bar  $f^3$  is fitted upon the standards and adapted to slide freely thereon, said cross-bar having teeth on both sides and both sides being convex. A third cross-bar  $f^4$  is fitted and adapted to slide on the standards, said cross-bar being straight and having teeth on its lower side only. Secured to the base  $f'$  of the frame of the mop and on each side thereof are outwardly-curved springs  $f^5$ , which have secured to their ends uprising bars  $f^6$ , which serve to widen the mop-frame

and by reason of their spring-support to yield under pressure, thereby permitting the mop to be inserted in corners and adjusted thereto and to fit other inaccessible places. Freely-connected links  $f^7$  are attached to the uprising bars on each side, thereby widening the base of the frame and permitting the necessary yielding thereof. The mop material is wound about the sides and base of this frame, all the cross-bars being removed at the beginning and only the toothed base-bar remaining. Care must be taken to cover the frame well, especially the corners thereof, and when a sufficient mass of material is wound about the base and the base-corners of the frame the lowermost sliding cross-bar  $f^2$  is placed upon the standards and run down to place. The wrapping is then continued over this first bar until a sufficient amount is wound, and then the second bar  $f^3$  is placed upon the standards and adjusted. The wrapping being continued, the third bar  $f^4$  is brought down to place, and by this time the mop-frame is completely covered.

It will be seen that by reason of the curves of the intermediate bars the sides of the frame at the standards have a greater space than the middle, thereby giving an opportunity, which is the purpose of this construction, to wind the mop material to a greater extent about the sides and corners of the mop in order to more fully cover the frame.

Nuts  $f^8$  are screwed upon the tops of the standards of the mop-frame, thereby holding the cross-bar  $f^4$  down upon the material. A handle-bar  $g$  is now fitted upon the top of the standards, and under said handle-bar is a spring  $g'$ , which bears upon the top of the cross-bar  $f^4$ , and by its constant pressure on said cross-bar serves to hold the latter down to the material at all times, whether the material be wet or dry or in various degrees of expansion and contraction caused by such conditions. Nuts  $f^9$  fit on top of the standards and hold the handle-bar to place.

The handle G is connected with the handle-bar by means of a hinged spring-controlled joint, so that it may be turned to any angle with respect to the mop and on either side of the mop, thereby giving facility and ease in operation.

The joint is of a peculiar nature and is con-



constructed as follows: A socket  $g^2$  receives the handle. This socket has a frame  $g^3$  at its base, and the arms of this frame are pivoted freely upon the cross-bolt  $g^4$ , mounted in lugs  $g^5$  of the base-bar  $g$  of the handle. Journaled and adapted to turn freely upon this bolt are two independent sleeves  $g^6$ , meeting at the center, Fig. 3. Each sleeve has at its outer end a disk  $g^7$ , and each disk has two contact-lugs  $g^8$ , separated the one from the other by one hundred and eighty degrees. The contact-faces of the lugs on one of the disks are reversed to the contact-faces of the lugs on the other disk.

Upon the cross-bar  $g$  of the handle are two stops  $g^{10}$ , one of which engages the lowermost contact-lug of one of the disks and the other engages in an opposite manner the lowermost contact-lug of the other disk. Likewise upon the base-bar of the handle-socket are two stops  $g^9$ , one of which engages the uppermost contact-lug of one of the disks and the other engages the upper lug of the other of the disks, but from the opposite side. A spring  $g^{11}$  encircles both sleeves, one end of the spring being fitted in one of the disks and the other end of the spring being fitted in the other of the disks. In order to adjust the tension of this spring, there may be a series of holes  $g^{12}$  in each of the disks, into which the spring ends may be fitted, as required. The effect of this construction is that when the handle is turned in one direction with respect to the mop one of its stops will come in contact with the lug of one of the disks and will cause said disk to turn and tighten up the spring, said spring being arrested by the fixed position of the other disk by reason of its lower contact-lug against the stop of the bar  $g$ , and when the handle is turned in the opposite direction a similar result and operation take place with respect to the other disk. In both instances the handle will return to a central vertical position, but in operation it may be turned to any angle required when in use and into the most comfortable position.

This connection of the handle of the mop is not confined to a mop, but the same may be applied to other cleaning articles—such, for example, as the brush I indicated in Fig. 5.

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

1. A mop-frame consisting of standards having a toothed base, a series of toothed cross-bars fitted and adapted to slide upon said

standards and between which the material of the mop is wound, and a means above to hold said bars to place.

2. A mop-frame consisting of standards having a toothed base, a series of toothed cross-bars fitted and adapted to slide upon said standards and between which the material of the mop is wound, a handle-bar secured on top of the standards and a spring under the handle-bar bearing on the upper cross-bar to hold it to its adjustment on the material of the mop.

3. A mop-frame consisting of suitable standards with a straight toothed base, an uppermost straight toothed bar fitted upon said standards, and intervening toothed bars having curved edges adapted to leave free spaces at the sides or standards for the winding of the mop material.

4. A mop-frame consisting of suitable standards having a base-bar, the side springs secured to each side of said base-bar, and the upright frame-bars on the ends of the said springs.

5. A mop-frame consisting of suitable standards having a base-bar, the side springs secured to each side of said base-bar, the upright frame-bars on the ends of the said springs and the loosely-connected intervening links on each side.

6. A mop-frame consisting of standards with a toothed base, freely-slidable toothed cross-bars on said standards, a handle with a base-bar secured on top of the standards and having a regulating spring-bearing on the top cross-bars, side springs below, and outer frames consisting of bars and links carried by said springs.

7. The connection of the handle with the mop or other cleaning device, consisting of the bolt, the handled socket pivoted thereon and having the stops, the independent journaled sleeves on the bolt having the disks with the oppositely-engaging stops, the fixed stops of the mop or other frame engaging the lugs of the disks and the intervening spring encircling said sleeves between the disks whereby the handle may be turned to an angle on each side of the mop or other frame.

In witness whereof I have hereunto set my hand.

HERRMANN A. WOLFF.

Witnesses:

S. H. NOURSE,  
WM. F. BOOTH.