(No Model.)

W. D. MILLER.

DISH WASHER.

No. 399,426. Patented Mar. 12, 1889.

Fig. 1.

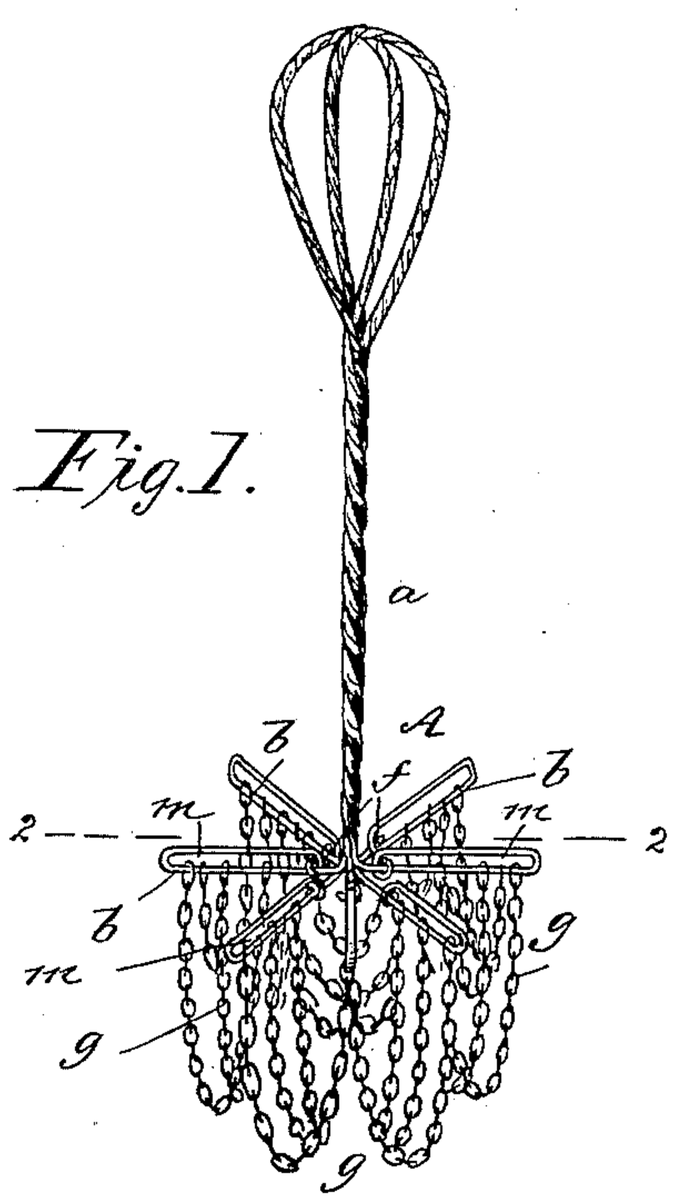


Fig. 3.

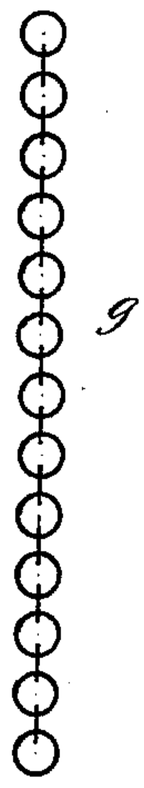
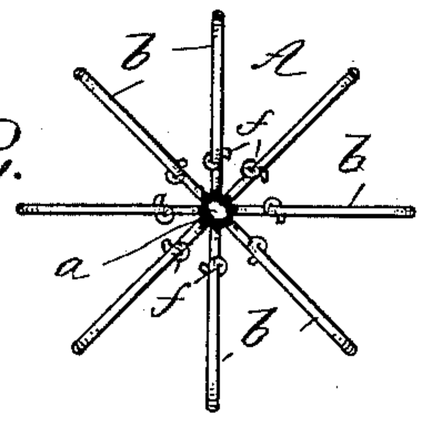


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM D. MILLER, OF FLORENCE, MASSACHUSETTS.

DISH-WASHER.

SPECIFICATION forming part of Letters Patent No. 399,426, dated March 12, 1889.

Application filed October 10, 1888. Serial No. 287,749. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. MILLER, a citizen of the United States, residing at Florence, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Dish-Washers, of which the following is a specification.

This invention relates to improvements in a metallic dish-washer comprising a bundle of connected links or rings of wire attached to a rigid handle, whereby the same may be conveniently and effectively used without the necessity of putting the hands in the water; and it consists in the construction and combination of the various parts, all substantially as will hereinafter fully appear, and be set forth in the claim.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improved dish-washer. Fig. 2 is a plan view of the frame portion of the washer as seen below the line 2 2, Fig. 1; and Fig. 3 is a section or length of one of the chains forming part of the washer.

The frame A is formed of wire, and comprises the handle portion *a* and the angular radial legs *b*, of suitable number. In the construction shown eight pieces or lengths of wire are employed, pairs of which are twisted upon themselves, except as to their end portions, and the four sets of dual-formed wires are then intermediately bent upon themselves and twisted for a portion of their lengths one upon the other, and the outer end portions of all the wires are bent at about right angles to the length of the handle to form the chain-supporting legs *b*, and each leg-forming end portion near its extremity is reversely bent on itself and by its end attached to the inner portion of the leg, as at *f*, forming elongated closed eyes *m*, for the retention of the end links of the chains *g* thereon, said links being engaged with said eyes before their being closed or afterward by opening the links, as desired. The chains are held by their ends on separate legs of the handle-frame, and said chains by their middle portions hang below the legs, and as many of the chains as desired or requisite are to be employed, and both ends of each chain may, if desired, be connected on one and the same leg; and, again, if desired, the chains may be only secured by one end, the other being left free.

The construction substantially as described enables a very large number of the chains to be employed, and the link-formed bundle or swab may be of as great density or compactness at or near its axial portion as at its exterior, enabling the device to possess capabilities for greater effectiveness; and, further, under the construction described cheapness and durability are important resultant advantages.

What I claim as my invention is—

A metallic dish-washer consisting of a series of wires having their intermediate portions bent and twisted upon themselves to form a handle and having their end portions extending radially to form legs, each leg having the return-bend and fastening *f* to form the closed eye *m*, and the series of chains directly connected with said eye-legs and pending therefrom, substantially as and for the purpose described.

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Witnesses:
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