W. F. LOAN.

MOP.

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Patented July 27, 1909. 928,991. Witnesses:

## UNITED STATES PATENT OFFICE.

WILLIAM F. LOAN, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR TO THE FLAT MOP MANUFACTURING CO., OF SOMERVILLE, MASSACHUSETTS.

MOP.

No. 928,991.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM F. LOAN, a citizen of the United States, residing at Somerville, in the county of Middlesex and 5 State of Massachusetts, have invented a new and useful Mop, of which the following is a

specification.

The objects of the invention are to improve the construction and increase the du-10 rability of the mop; to improve the manner in which it is held assembled with the head, whereby separation of the two parts may readily be secured when desired as for the purpose of cleansing or drying the mop or 15 of supplying a new mop for one that has become useless; to adapt the mon for use in contracted spaces such as beneath book cases, upright pianos, radiators and the like: to protect the mop head or frame from the 20 deteriorating effect of moisture; to prevent the head from wearing through the mop; to improve the manner of assembling the mon head with the handle clamp; and, generally to improve and increase the efficiency of 25 mops such as are commonly employed for household use.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a mop and head therefor, as will be here-

inafter fully described and claimed.

In the accompanying drawings forming a part of this specification and in which like 35 characters of reference indicate corresponding parts,—Figure 1 is a view in perspective with parts broken away, displaying a mop and mop head constructed in accordance with the present invention, and also the mop 40 head clamp. Fig. 2 is an enlarged detail view showing the manner in which the mop. is held assembled with the head, and also the manner in which the mon is constructed. Fig. 3 is a fragmentary detail view showing a 45 slightly modified form of mop and head. Fig. 4 is a perspective detail view of the mop head clamp, the parts thereof being separated. Fig. 5 is a transverse sectional view through the mop head clamp showing the 50 manner in which the same acts upon the mop. head to hold the latter assembled therewith. Fig. 6 is a detail perspective view of a portion of the clamp.

As shown in Figs 1 and 2, the mop head 55 1 is constructed from two wires that are

twisted together and bent to form a rectangular mop-support, the four sides of which hereinafter will be referred to as the four members of the head, the terminals 2 of the wires being bent at right angles to 33 each other and projected away from the head proper and at an angle thereto to be engaged by the mop head clamp 3 presently to be described. By preference, the wires forming the mop head will be made from 85 galvanized iron and of a gage that will insure the necessary rigidity and also permit yielding to pressure. The mop 4 is by preference constructed of lengths of cord, and these are bent upon themselves and passed 70 around a tube 5, which is constructed, pref-Crably, of canvas or other suitable material, adapted to the purpose, the two members of which are held assembled to form the tube by a line of stitches 6. The mop 4 is secured 75 to the flaps or extended portions 7 of the tube by rows of stitches 8. By the provision of the tube, and by the manner of securing the mop thereto, the tube together with the mop may readily be assembled with the four 80 members of the head or be removed therefrom when it is desired either to wash or dry the mop or supply a new one to the head. As a matter of further and specific improvement the head is covered by a rub- 85 ber tube 9, and this will prevent the moisture from the mop from working through to the frame and protect it from liability of rusting and thus deteriorating. This tube 9 is coextensive with the head and extends to 90 and covers the terminals 2.

In the form of the invention shown in Fig. 3, the head 10 is made of a single wire of any suitable gage, and is devoid of the rubber protecting tube 9; but it is to be understood that if desired this tubing may be employed in connection with this form of the invention, or may be omitted from the em-

The mop head clamp comprises two members designated, generally 11 and 12. Each of these members has at one end a semicircular handle-engaging extension 18, and the member 12 is further provided with an orifice 14 through which is passed a screw 105 15 for securing the clamp to the handle 16. The end of the clamping member 11 opposite that carrying the part 13 is formed into a flat channeled extension 17, and has rigidly connected with it a screw 18. The clamp- 110

ing member 12 has at the end opposite that carrying the member 13 a flat channeled extension 18, the outer end of which is formed into a curved lip 19, the end walls of which are cut away to provide two semi-circular or approximately semi-circular recesses or seats 20 that are adapted to engage with the terminals 2 at their bends, and thereby firmly secure the head in position.

As shown in Fig. 5, the flanges 21 of the clamping member 11 fit exteriorly of the flanges 22 of the member 12, and by this arrangement the two members are positively held against having any rocking movement the tubular member.

15 when once assembled. The member 12 is provided with an orifice 23 through which the screw 18 projects, and the latter is engaged by a winged nut 24 to effect clamping of the two members 11 and 12 together. It will be noted by reference to Fig. 2 that the

tube 5 fits closely upon the head, so that there will be no obstruction presented to the removal of the mop from the head when such is desired.

By the construction of the head and the manner of assembling the mop therewith, the latter will in use spread out flat which will permit of its being passed under articles of furniture that lie close to the floor and thus materially enhance the usefulness of the article. Furthermore, owing to the fact that the mop extends around the four members of the mop head, a larger area of floor

surface will be covered with this form of

mop than with those in ordinary use. 35 Another feature of value is that by making the head a hollow rectangle in form, as indicated in Fig. 1, there will always be opportunity for air to circulate through the mop, and thus assist in its rapid drying, and 40 thereby obviate any tendency to become mildewed or rotting.

What is claimed is:-

1. The combination with a mop head, of a waterproof member arranged thereon, a 45 tubular member disposed around the waterproof member, and a mop assembled with the tubular member

2. In a device of the class described, a hollow rectangular mop head having its 50 terminals brought into close relation and upbent at an angle to the head proper; a tubular member mounted upon the head and coextensive therewith; a fibriform mop coextensive with the head and being arranged 55 to hang freely pendent therefrom, the said mop being fashioned from strands doubled upon the tubular member and being attached thereto, the parallel sides of the head being spaced apart to provide a central air pas-60 sage through the mop.

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

WILLIAM F. LOAN.

Witnesses:

J. E. BROWN, C. A. GILBERTT.