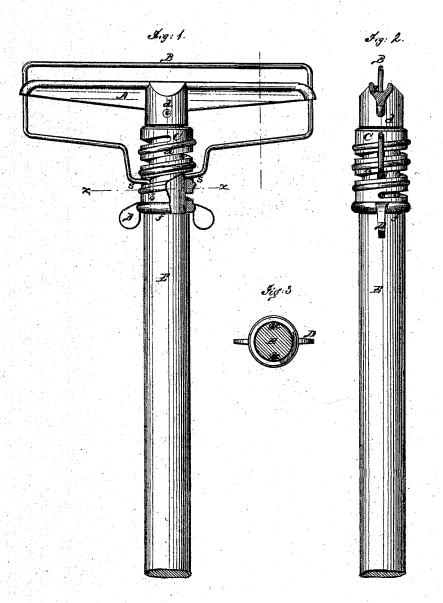
## J. Messinger, Mon Head.

NO 112,615.

Patented Mar 14. 1891.



Witnesses: H. Cwattenberg Pufue HogiInventore dorephillersinger per (supposed)

## United States Patent Office.

## JOSEPH MESSINGER, OF SPRINGFIELD, VERMONT.

Letters Patent No. 112,615, dated March 14, 1871.

## IMPROVEMENT IN MOP-HEADS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOSEPH MESSINGER, of Springfield, in the county of Windsor and State of Vermont, have invented a new and improved Mop-Head; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The object of this invention is in the nature of an improvement in mop-heads, whereby great economy is obtained in their manufacture, and a positive upand-down movement imparted to the binder by means of a skeleton-screw, and in this way preserving all the essential features of the best mop-heads heretofore constructed, but in a far cheaper, simpler, and efficacious manner.

In the accompanying drawing-

Figure 1 represents a face view of my mop-head attached to the handle.

Figure 2, an edge view of the same. Figure 3, a section in line x x.

Similar letters of reference indicate like parts in the several figures.

A represents the cross-head.

B, the binder. C, the screw.

D, thumb-ears. E, handle or stick.

a, screw-threads.

b, bent ends of binder.

c, grooves or guides.
d, socket.

e, rivet.

f, shoulder.

g, recesses.

The cross-head A, with the socket d for the reception of the end of the handle E being in all respects similar to the cross-heads heretofore patented and in use, no particular description of its construction is therefore necessary.

The construction of the screw C is peculiar, as it is east in the form of a tubular skeleton-screw, with thumb-ears D cast thereon, so that it may be readily turned or revolved around that portion of the handle E which passes through it. The portion of the handle

around which it so revolves is of somewhat less diameter than the other part of the handle, thus enabling it to enter the socket d, where it is fixed by the rivet e, and also forming the shoulder f, against which the lower end of the screw C works when being revolved.

The cross-head A and screw C being thus in position the binder B, which is formed of wire of any suitable size, is bent in the shape shown in fig. 1, its vertical sides passing into and working freely through recesses g in the ends of the cross-head, and the ends of said binder being bent or formed with shoulders s in such manner as will admit of their passing between the threads a of the screw C, in the manner shown in fig. 1; and the ends b are bent at right angles to the shoulders s, and pass under the screw-thread a, and enter into the grooves or guides c in the handle E, so that, when the screw C is revolved, the edges of the screw-threads a will press against said shoulders s and force said binder up or down, according to the way said screw may be revolved, either right or left, the ends b of said binder being confined and guided in their action by working in the guides or grooves c, and the mop-cloth being clamped between the binder and the cross-head, as the binder may be moved up or down, as hereinbefore described.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. A mop-head, wherein the binder is operated by means of a tubular screw, said screw being formed of skeleton or open screw-threads, in the manner and for the purposes herein described.

2. A mop-head, wherein the ends of the binder pass between the open threads of a screw and work up and down in grooves or guides formed in the handle, in the manner and for the purposes herein described.

3. A skeleton-screw, operating the binder of a mophead by direct action, and without the medium of a collar, yoke, or nut.

4. The combination of binder, cross-head, and handle with a tubular skeleton-screw.

JOSEPH MESSINGER.

Witnesses:

SAMUEL J. YOUNG. H. H. MASON.