

No. 675,449.

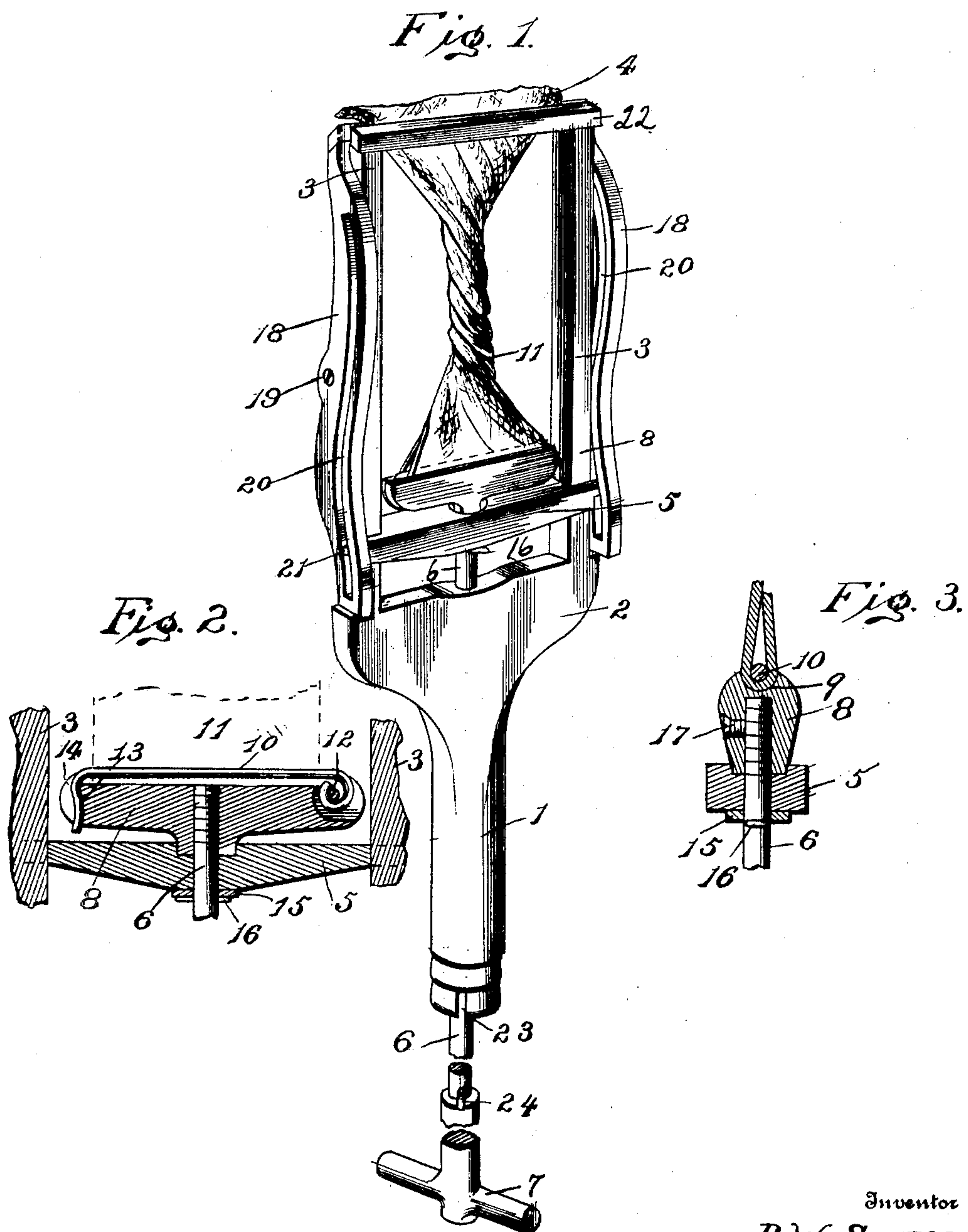
Patented June 4, 1901.

B. W. SMITH.  
COMBINED MOP HEAD AND WRINGER.

(No Model.)

(Application filed Dec. 31, 1900.)

2 Sheets—Sheet 1.



Witnesses

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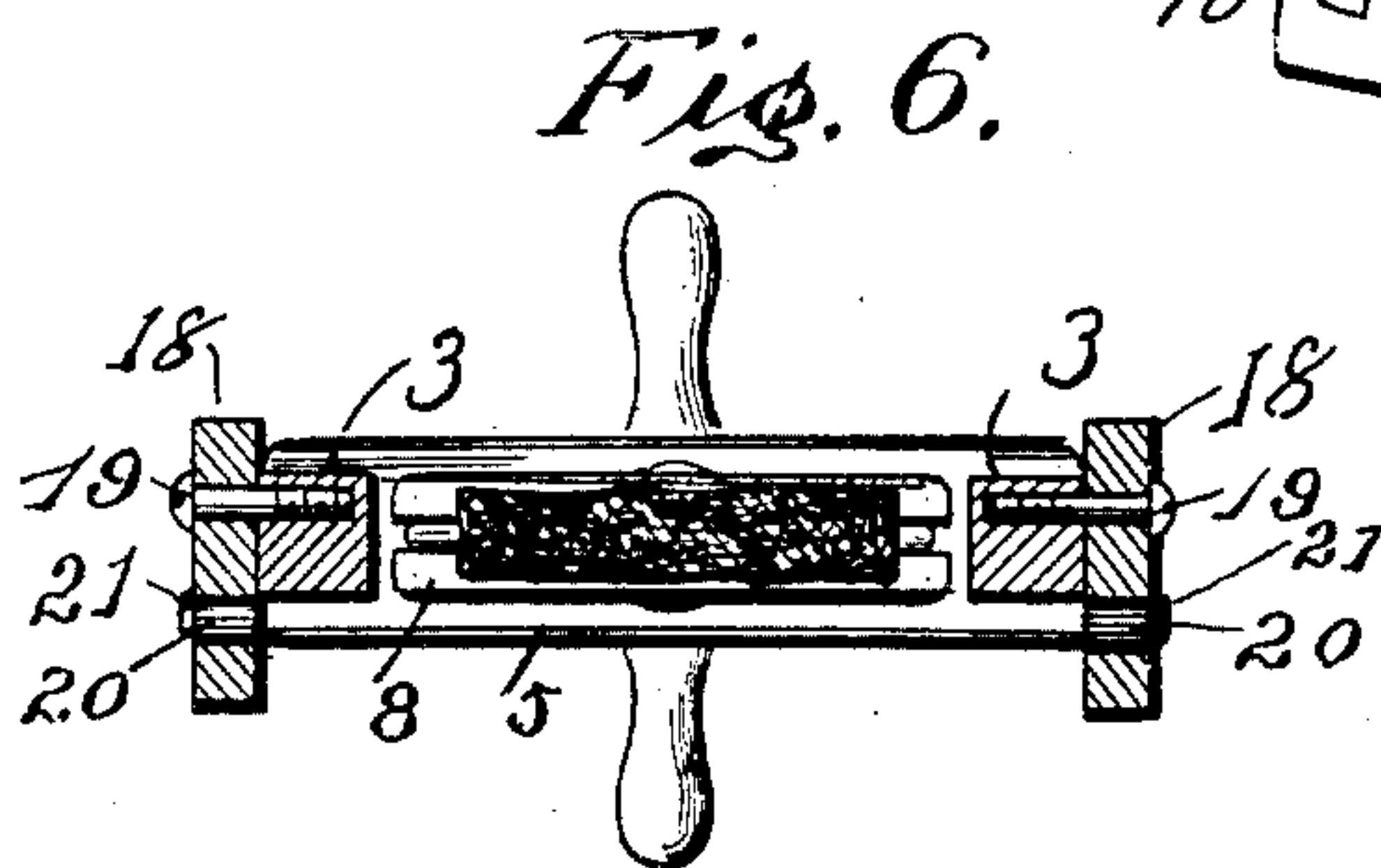
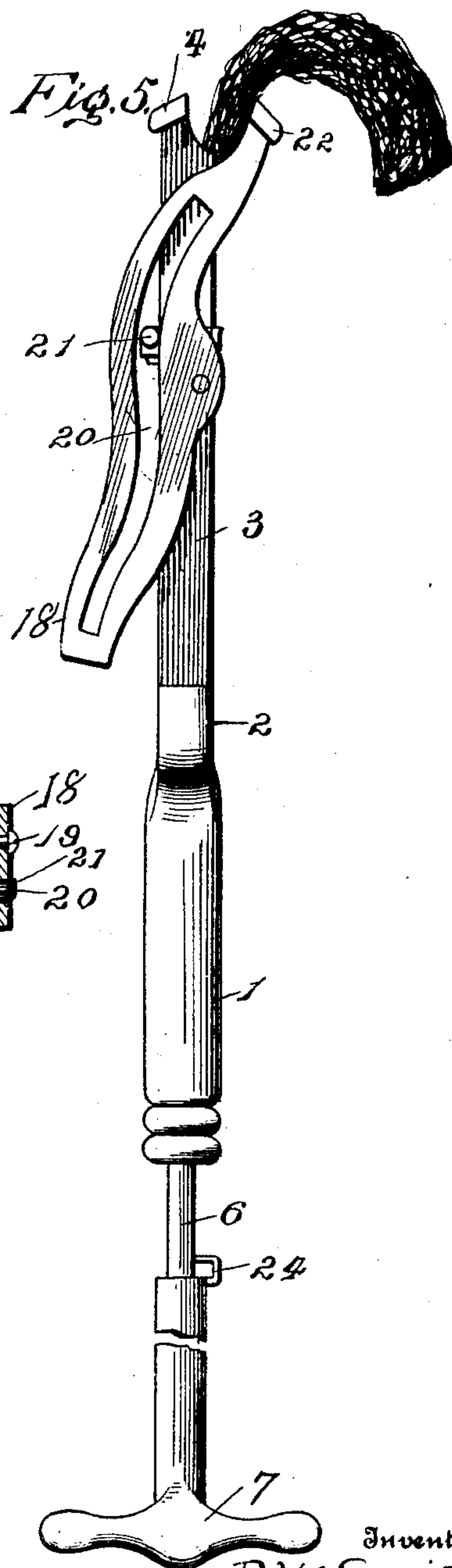
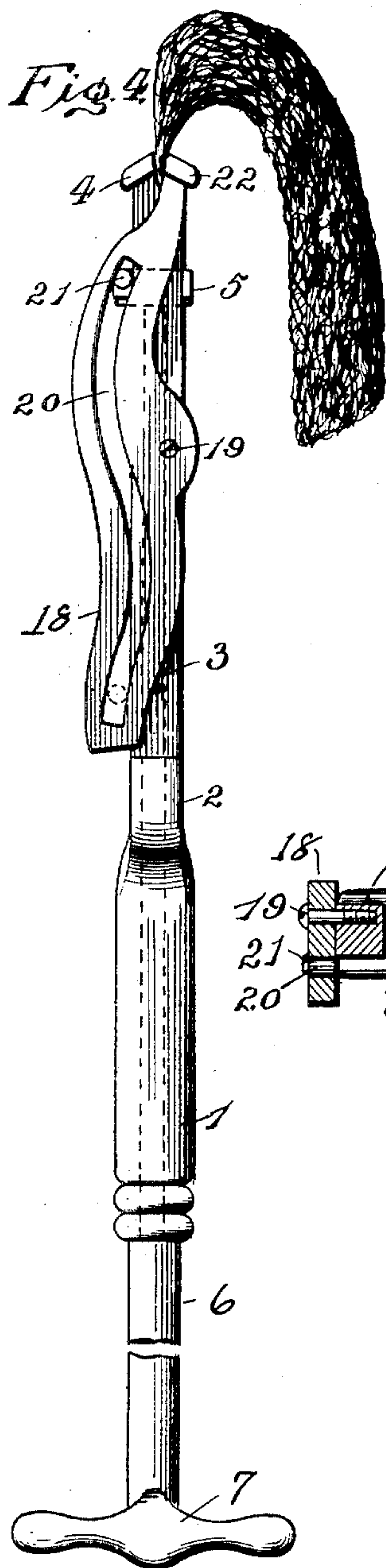
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Witnesses

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# UNITED STATES PATENT OFFICE.

BANKS W. SMITH, OF ARVERNE, NEW YORK.

## COMBINED MOP HEAD AND WRINGER.

SPECIFICATION forming part of Letters Patent No. 675,449, dated June 4, 1901.

Application filed December 31, 1900. Serial No. 40,540. (No model.)

*To all whom it may concern:*

Be it known that I, BANKS W. SMITH, a citizen of the United States, residing at Arverne, in the county of Queens and State of New York, have invented certain new and useful Improvements in a Combined Mop and Wringer; 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.

My invention relates to a combined mop-holding device and mop-wringer; and it consists of certain novel features of combination and construction of parts, as will be hereinafter described and claimed, reference being had to the accompanying drawings, made a part of this application.

The object of my invention is to provide a reliably-efficient instrument or device of the character specified whereby a mop or cloth employed to cleanse a floor may be manipulated without the necessity of the operator touching the cloth with his hands.

Other objects and advantages will be made fully apparent from the following specification.

In the accompanying drawings, Figure 1 is a perspective view of my invention complete, showing the parts in such position as will enable the operator to wring or twist the mop-cloth and thus free it from surplus water. Fig. 2 is a longitudinal central section of the mop-holding head and also the guide coöperating therewith and a portion of the frame. Fig. 3 is a transverse central section of the parts illustrated in Fig. 2. Fig. 4 is a side view showing my combined mop stick and wringer ready to be applied to the work of cleansing the floor. Fig. 5 is a similar view to that shown in Fig. 4, excepting that the jaws are shown to be opened. Fig. 6 is a plan view of the outer face of the mop-holding head and also of the cross-head employed to operate the jaws, showing a portion of the framework in section.

In order to conveniently refer to the several features of my invention and their coöperating accessories, numerals will be employed, of which 1 indicates the body portion or handle proper of my improved combined mop and wringer, which is provided with the enlarged

end or head 2, to each end of which is secured the side sections 3 of the frame, said side sections being substantially parallel with each other and connected together at their outer ends by the end member 4, thereby providing a substantially rectangular framework, and designed to be reciprocated within said framework is the cross-head 5, which is provided with end recesses of sufficient size to loosely receive the parallel sections 3, thereby permitting said head to be freely reciprocated within the confines of the framework or between the end of the head 2 and the member 4, as will be hereinafter more particularly pointed out.

The cross-head 5 is provided centrally with a bore of sufficient size to receive the controlling stem or handle 6, which extends loosely through a bore provided in the handle proper, 1, and is provided at its outer end with the manipulating-handle 7, whereby said controlling-handle may be freely reciprocated within said bore and thereby draw the mop-holding member 8 away from or force the same in the position contiguous to the end member 4 during the operation of the device.

The mop-holding member 8 is provided with a longitudinal groove 9 on its outer surface, said groove being of proper size to receive the anchoring-bail 10 and the mop-cloth 11, disposed around said bail. The bail 10 is pivotally secured at one end of the mop-holding member, as by the anchoring rivet or rod 12, while the opposite end of the bail is bent at right angles to the body portion, thus providing the stem 13, which is properly curved, as indicated in Fig. 2, so that the same will remain in place when forced downward within the end recess 14, provided in the contiguous end of the member 8.

In order that the mop-holding member 8 may be freely turned during the operation of twisting or wringing the mop-cloth 11, as shown in Fig. 1, the controlling-handle 6 is rotatably secured in an aperture provided in the cross-head 5, but prevented from having longitudinal movement therein by means of the washer 15 and pin 16, it being understood that the mop-head 8 may be secured to the end of the controlling stem or handle 6 in any preferred way, as by the set-screw 17. (More clearly shown in Fig. 3.)



The end member 4 not only serves the purpose of completing the framework, but also constitutes one of the jaws of my mop-holding device or wringer, said jaw being immovable with respect to the other parts.

In order to provide a movable jaw designed to cooperate with the member 4, I provide the jaw-operating members 18, one for each side of the framework. The jaws 18 are pivotally secured to the parallel sections 3, as by the screw or bolt 19, and each jaw is also provided with a longitudinally-disposed curved slot or eccentric guide 20, designed to receive the lug 21 upon the ends of the cross-head 5, as clearly illustrated in Figs. 1 and 6 and other views.

To the outer ends of the controlling members 18 I attach the curved section or movable jaw 22, designed to lie parallel to and cooperate with the stationary jaw or member 4, carried by the frame-sections 3, and by reference to Figs. 4 and 5 it will be obvious that when the cross-head 5 is moved toward the head 2 the lugs 21 will first so act upon the controlling members 18 that the jaw 22 will be moved away from the stationary jaw 4 and that when the head 5 is moved still farther, so that the lugs 22 will reach the ends of the groove 18 nearest the handle, the jaw 22 will be brought tightly against the jaw 4 or any cloth interposed between them, and this movement or relationship of the jaws I utilize for the purpose of wringing the mop-cloth, as will be hereinafter more particularly pointed out.

The end of the handle proper, 1, is provided upon one side with the recess 23, designed to receive a finger or lug 24, located at a point near the end of the controlling-handle 6, which will insure that said lug will enter said recess when the cross-head 5 has been forced outward to the desired point.

In Fig. 4 the cross-head 5 has been forced outward, so that the lug carried by each end thereof occupies the extreme outer end of the cam-slots 20, thereby moving the jaw 22 tightly in engagement with the jaw 4 or with the mop-cloth interposed between said members. This adjustment will take the strain off of the bail 10 during the operation of using the instrument.

It will be understood that the several parts may be of any desired size and of any preferred material deemed most suitable to meet the requirements of the situation, and while I have described the preferred construction and combination of elements it will be understood that I desire to comprehend in this application all substantial equivalents and substitutes that may be considered to properly fall within the scope of my invention.

Having thus fully described the construction of my invention, the operation or manner of using the same may be stated to be as follows: A suitable mop-cloth is secured to the mop-holding section or member 8 in any suitable way, preferably by folding the cloth upon

itself and extending the bail 10 through the folded end and moving said bail into a position parallel with the member 8 and causing the right-angled extension 13 thereof to spring down into the end recess 14. The stem 6 may be so withdrawn as to move the cross-head in the position shown in Fig. 5, when the free end of the mop-cloth may be entered between the jaws 4 and 22. The stem 6 may be then forced inward, causing the cross-head 5 to move toward the fixed jaw 4, the result being that the lugs 21 will follow the grooves 20 and move the jaw 22 tightly in engagement with the cloth interposed between it and the jaw 4. The instrument is now in position for using in the usual manner, and after being used it will become necessary to rinse and cleanse the same, which may be done by entering the cloth in a tub of prepared water, and after properly agitating the cloth in the contents of the tub it becomes desirable to wring the surplus water therefrom, which may be readily accomplished without it being necessary for the operator to apply his hands thereto. In order to wring the mop-cloth, and thus free it from surplus water, the stem 6 is withdrawn, thereby moving the cross-head 5 toward the head 2 and incidentally operating the jaws by means of the lugs 21 following the grooves 20. The first result of moving the cross-head 5 away from the stationary jaw will be to withdraw the jaw 22 away from said stationary jaw and permitting the mop-cloth to be drawn between the open jaws until the cross-head approaches the head 2, when the jaws will again close upon the mop-cloth, and thus engage the free end thereof before it escapes between the jaws. The withdrawn position of the cross-head 5 is illustrated in Fig. 1, and it will be observed that when said cross-head is in said position the lugs 21 will so act upon the movable members 18 through the medium of the slot 20 that the extreme end of the mop-cloth will be tightly gripped, when by rotating the stem 6 the mop-holding member 8 will be turned, thereby causing the cloth to be twisted around, and thus freed from its surplus water. After the cloth has been thus tightly twisted the member 6 may be thrust inward, which action will again open the jaws and permit the cloth to pass freely downward between them, and when the cross-head 5 has reached a point adjacent to the stationary jaw 4 said jaws will again be locked and the operation repeated. The several parts of my invention are so made that any one of them may be readily replaced without the necessity of purchasing an entire new instrument.

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

The herein-described combined mop holder and wringer comprising a tubular handle proper; a framework carried by the lower end of said handle; a cross-head reciprocating in said framework and having extended ends or



lugs 21; a movable member pivotally secured  
on each side of said framework and coöperat-  
ing with said lugs; a movable jaw connecting  
the free outer ends of said members and co-  
5 operating with the end of said framework; a  
mop-holding member 8 and suitable means  
to connect the mop thereto; a controlling-  
stem for said mop-holding member designed  
to be received by said tubular handle said  
10 lugs being designed to be received by a cam-

slot in the movable members whereby the  
movable jaw carried thereby will clamp and  
release the mop-cloth at desired intervals for  
the purpose specified and as set forth.

In testimony whereof I affix my signature 15  
in presence of two witnesses.

BANKS W. SMITH.

Witnesses:

L. B. EDSSELL,

CALEB BASSENFELD.