(No Model.)

J. SHAW.

SPINDLE WHARVE.

No. 412,004. Patented Oct. 1, 1889.

Fig. 1.

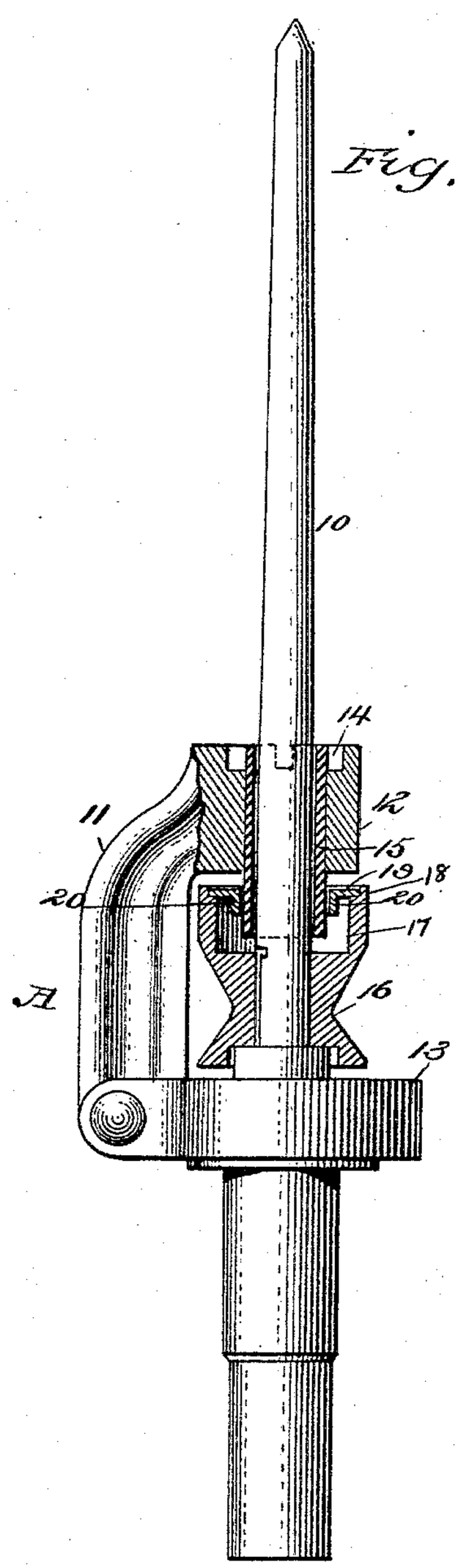


Fig. 2.

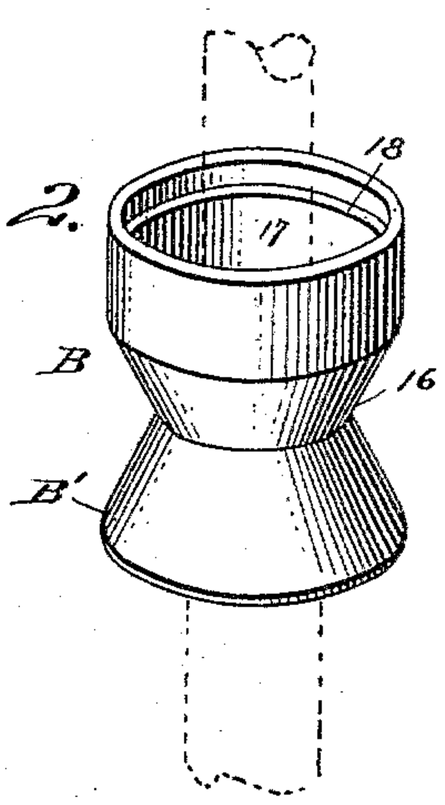
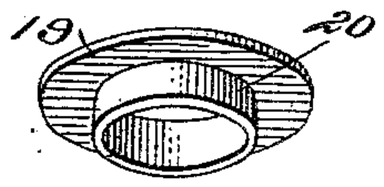


Fig. 3.



WITNESSES:

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JAMES SHAW, OF PATERSON, NEW JERSEY.

SPINDLE-WHARVE.

SPECIFICATION forming part of Letters Patent No. 412,004, dated October 1, 1889.

Application filed June 15, 1889. Serial No. 314,349. (No model.)

To all whom it may concern:

Be it known that I, JAMES SHAW, of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Improvement in Spindle-Wharves, of which the following is a full, clear, and exact description.

My invention relates to an improvement in spindle-wharves, and especially to an improvement upon the construction illustrated in Letters Patent granted to J. Duffy and H. Whorwell, dated May 17, 1881, No. 241,632.

The object of the invention is to provide a wharve so constructed that the oil will not be thrown out therefrom to the damage of material upon the spindle as the said spindle is revolved.

A further object of the invention is to provide a wharve capable of containing a sufficient amount of oil to lubricate the spindle when revolving for a great length of time.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

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

Figure 1 is a partial side elevation and partial vertical section of a spindle having my improvement applied. Fig. 2 is a perspective view of the wharve detached and the cover removed therefrom, and Fig. 3 is a perspective view of the wharve-cover.

In Fig. 1 of the drawings the spindle 10 is held to revolve in a frame 11, which frame comprises a body portion A, having projected from its top a sleeve 12, extending horizontally at a right angle from the body, and a larger lower sleeve 13, which latter sleeve is attached to the body at its lower end by means of a set-screw or equivalent fastening device, as is fully set forth in the patent above referred to. The upper face of the upper sleeve is recessed, as shown at 14, and the bore of the said sleeve is provided with a metal packing-thimble 15, in which the spindle 10 revolves, the said thimble being of sufficient length to extend downward into the wharve 16, as shown in Fig. 1.

The manner of mounting the spindle, the construction of the frame in which it is mounted, and the construction of the thimble 15 are all old, being fully shown and described in the said Duffy and Whorwell patent. The upper section of the wharve 16 is made longer than the lower section, as illustrated at B and B′ in Fig. 2. The said wharve is provided with the usual bore, through which the spindle passes, and the said spindle and wharve are rigidly attached one to the other in any suitable or approved manner. The upper section B of the wharve is hollowed out to form a chamber 17, capable of containing quite a quantity of oil, and in the inner wall of the said chamber near its upper end an annular recess is made, whereby a shoulder 18 is produced adapted to receive and sustain the periphery of a ring-like cover 19, (illustrated in Fig. 3,) which cover consists, preferably, of a disk having a central opening therein capable of receiving the lower end of the thimble 15, as shown in Fig 1, and upon the under face of the disk around the opening therein an annular flange 20 is formed or secured. When the cover has been placed in position upon the wharve, it is brazed or otherwise rigidly secured thereto. The object of the flange 20 is to act as a safeguard and prevent the oil from being thrown out of the chamber 17 when the wharve is rapidly rotated.

In operation the chamber 17 is filled with oil by allowing the same to pass downward between the spindle and the thimble. When the chamber in the wharve is filled, or practically so, the spindle is ready for running, and as the spindle revolves the oil, by reason of the rapid movement of the wharve, is drawn upward in the thimble 15 and the spindle is effectually lubricated at all times. When the movement of the spindle is stopped, the oil falls down again into its compartment, and as the upper surface of the wharve is completely covered, with the exception of at its center, where the thimble passes through, it is utterly impossible, no matter how rapidly the wharve may be revolved, for any of the

oil to be drawn from the chamber 17 out upon the silk or other material carried by the spindle.

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

As an improved article of manufacture, the wharve 16, having a chamber 17 in its upper end, provided with an internal annular shoulder 18, and the centrally-apertured disk 19, resting on said shoulder and provided with a depending annular flange 20 around said central opening, substantially as set forth.

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Witnesses:
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