D. WILSON, Jr. & T. HALL.

Whirl for Spinning-Machine.

No. 167,965. Patented Sept. 21, 1875.

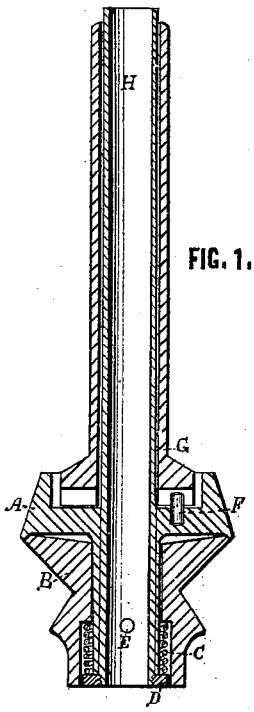

FIG. 1.

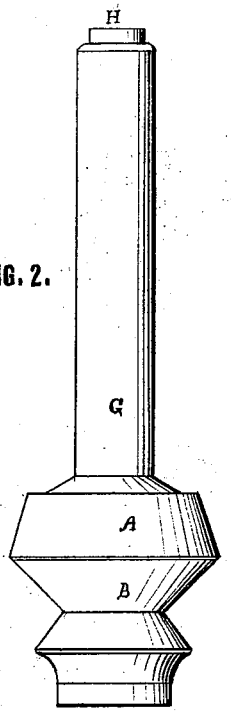

FIG. 2.

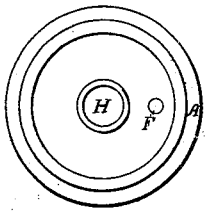

FIG. 3.

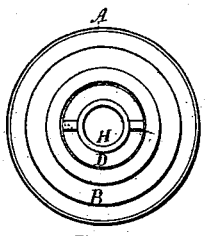

FIG. 4.

WITNESSES;

Arthur C. Moore.

Jos. L Partridge

INVENTORS;

David Wilson Jr

Thomas Hall

Per Chas D Moore

Atty

UNITED STATES PATENT OFFICE.

DAVID WILSON, JR., AND THOMAS HALL, OF LAWRENCE, MASSACHUSETTS; SAID WILSON, JR., ASSIGNOR TO SAID HALL.

IMPROVEMENT IN WHIRLS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. **167,965**, dated September 21, 1875; application filed February 20, 1875.

To all whom it may concern:

Be it known that we, DAVID WILSON, Jr., and THOMAS HALL, both of Lawrence, in the county of Essex and State of Massachusetts, have invented an Improved Whirl for Bobbins, of which the following is a specification:

The object of our invention is to construct a whirl for bobbins which is simple in its construction and effectual and economical in use.

Our invention relates more especially to that class of bobbin-whirls which are used in worsted spinning-frames; and consists in a novel construction of its parts, as herein fully explained and set forth.

Our invention consists in constructing a whirl in two parts, the socket or guard and the band whirl or pulley being so constructed and held by a friction-spring to each other that when breakage occurs in the spinning the whirl can be readily stopped, (or that portion which holds the bobbin,) and the break mended without cutting or burning the fingers, or burning and wearing the driving-bands, as is the case with most dead-spindle whirls, all of which will be more fully seen by reference to the accompanying drawing and the following description, in which—

Figure 1 is a vertical longitudinal section, showing our improvement with a bobbin attached. Fig. 2 is a view of our improved whirl; Fig. 3, a top view with bobbin removed; and Fig. 4, a bottom view of the same.

Like letters represent the same parts in each of the figures, of which A is our socket or guard, so made as to form a socket and shield around the bobbin-head, having its outer surface beveled or inclined toward the bobbin, and designed to prevent the yarn while spinning from riding over the head of the bobbin. B is a band-whirl, which is made independent of the socket A, and placed loosely on the shaft or tube H, (the tube H being firmly secured to the socket A,) and held in place by the friction-spring C, so that should it become necessary, by the breakage of the yarn, to stop the bobbin, it can be readily done by placing the fingers upon the conical guide A, the band-whirl revolving meanwhile, and the break be thus repaired without causing the bands to stop, or cutting and burning the fingers, as with the old whirl, and with a great saving of time, as with our improved whirl the bobbin can be instantly stopped. C is a friction-spring, designed to secure friction between the band-whirl B and the socket or guard A, and is situated within the band-whirl B and about the tube H. D is a cap or washer, designed to hold the spring C in place and secure proper friction. E is an opening in the tube H, designed to admit oil for the purpose of lubricating the bearing formed by the band-whirl B and the tube H. F is a pin or stud projecting upward from the socket or guard, and designed to rotate the bobbin with the tube H. G represents a bobbin, and H a tube, which is securely fastened to the whirl-shield A. By this construction the doffing of the frame is greatly facilitated, and the snarling of bobbins effectually prevented, with a great reduction of waste and a saving in time.

We are aware that bobbin-holders for ring-spinning have been constructed with a socket to receive a bobbin-head, as in patent of Wm. G. Perry, dated March 25, and November 25, 1873; but it not designed for the purpose of a shield, but to hold the bobbin, and we make no claim to the socket as used by him.

We claim and wish to secure by Letters Patent—

The combination of the conical guard A, the band-whirl B, the friction-spring C, the pressing-cap D, and the tube H, provided with the opening E, all in the manner and for the purpose herein set forth.

DAVID WILSON, JR.
THOMAS HALL.

Witnesses:
CHAS. D. MOORE,
ELMER A. BRIGGS.