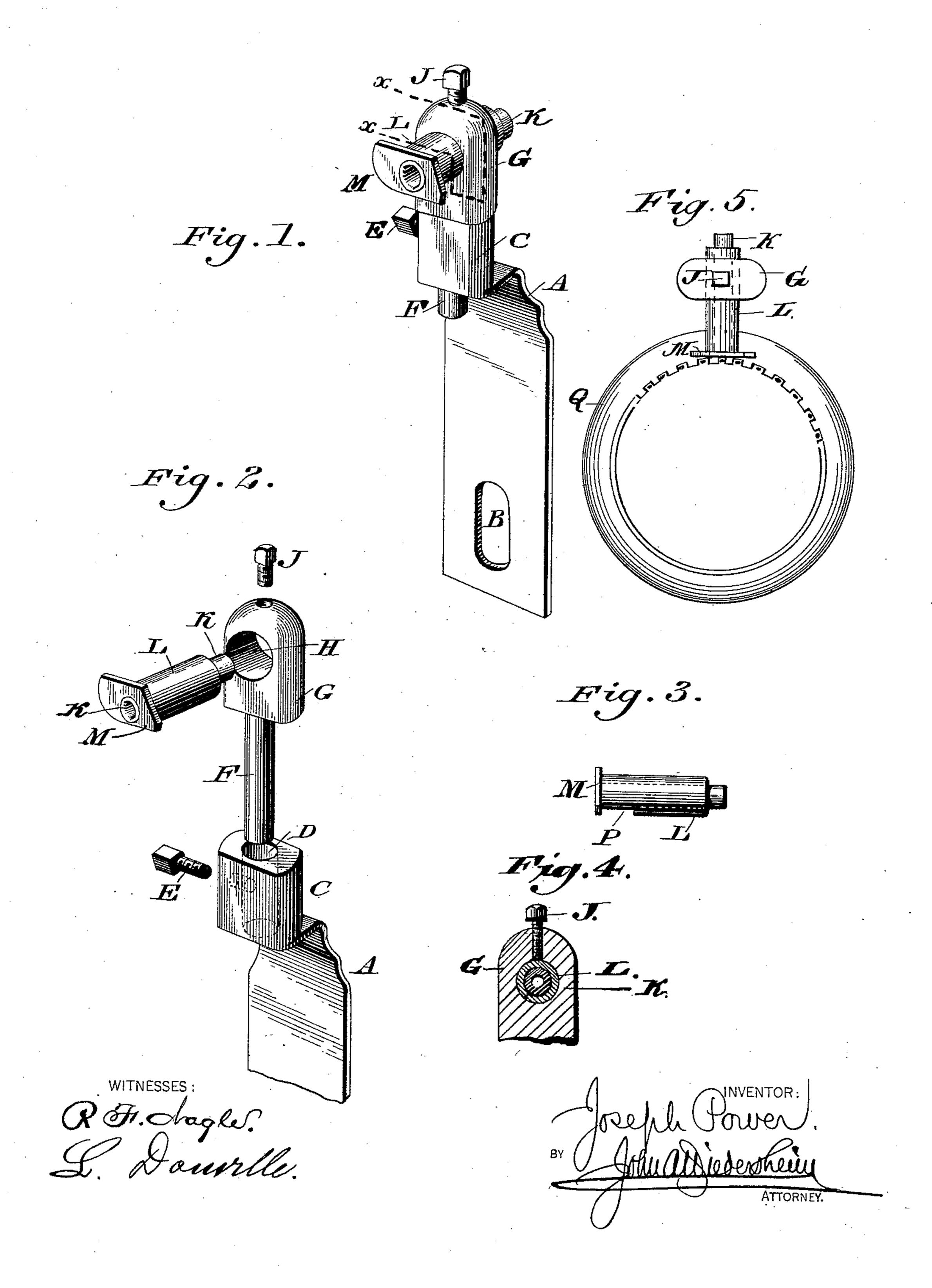
(No Model.)

## J. POWER.

THREAD GUIDE FOR KNITTING MACHINES.

No. 436,996.

Patented Sept. 23, 1890.



## United States Patent Office.

JOSEPH POWER, OF PHILADELPHIA, PENNSYLVANIA.

## THREAD-GUIDE FOR KNITTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 436,996, dated September 23, 1890.

Application filed July 11, 1889. Serial No. 317,148. (No model.)

To all whom it may concern:

Be it known that I, Joseph Power, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Thread-Guides for Knitting-Machines, which improvement is fully set forth in the following specification and accompanying drawings.

thread, &c.; and it consists in the combination of parts, as herein described and claimed, whereby a device is formed which is simple in construction and readily adjustable and interchangeable in its parts and adapted to efficiently perform the work desired.

Figure 1 represents a perspective view of a yarn-guide embodying my invention. Fig. 2 represents a similar view of the parts detached. Fig. 3 represents a detail view in elevation of the guide-tube and its casing. Fig. 4 represents a section on line x x, Fig. 1. Fig. 5 represents a top view of a needle-cylinder having interior needle-grooves and showing my improved device applied thereto.

Similar letters of reference indicate corre-

sponding parts in the several figures.

Referring to the drawings, A designates the support adapted to be affixed to the frame of a knitting-machine by means of a screw passing through the slot B and having a head C set out from the body of the support and formed with a vertical socket D, intersected by a threaded opening for receiving a set-

The extensible portion of the guide comprises a head G, having a transverse opening H, and a vertical threaded opening to receive a set-screw J, and a cylindrical stem F to extend into and through socket D of head C on the standard.

The guide proper comprises a tubular casing L, having a recess P, Fig. 3, a latch-opener M, attached thereto, and a guide-tube K, of hard material, preferably porcelain, securely mounted in said casing. The said guide is projected into the opening H of head G, the guide being also held fixed therein by the set-screw J. The head G is adjustable both vertically and laterally on the head C of standard A, whereby the guide proper may

be elevated or lowered and the lateral position thereof changed, as desired.

The guide-tube K, being made of porcelain, resists wear from the friction of the yarn or 55

The device heretofore set forth is adapted for use with a needle-cylinder Q, having interior needle-grooves. The latch-opener M is located over said needle-grooves, as shown 6c in Fig. 5, and in rear of said latch-opener is the recess P, which permits the guide to be set close on the cylinder-top, and thus prevents drop-stitches or "press-offs," as the recess fits on the said cylinder over the sinker 55

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

or bell-top thereof.

1. A thread-guide consisting of a support 70 with a head having a socket therein, a second head with a stem adjustable in said socket and having a horizontal opening, a screw for fastening said stem in place, a tubular casing adapted to fit in said horizontal opening, a 75 guide-tube fitting in said casing, and a latch-opener secured to said casing, said parts being combined substantially as described.

2. A thread-guide having the casing L, with a guide-tube fitting therein, a head with 80 an opening in which said casing may be adjustably fitted and provided with a stem, a fastening-screw for said casing, a support having a socket in which said stem is vertically adjustable, and a fastening-screw for 85 said stem, said parts being combined substan-

3. A thread-guide consisting of a slotted support having a head set out from the body thereof, said head having a socket or open-90 ing therein, a second head adjustable in said opening, a fastening-screw securing the stem thereof in place, a casing with a guide-tube fitted therein and having a latch-opener secured thereto, and a fastening-screw for said 95 casing, said casing being adjustable in an opening in said second head, said parts being combined substantially as described.

JOSEPH POWER.

Witnesses:

JOHN A. WIEDERSHEIM, A. P. JENNINGS.