

(No Model.)

H. R. MITCHELL & J. E. JENCKES.

THREAD GUIDE FOR SPINNING MACHINES, &c.

No. 360,969.

Patented Apr. 12, 1887.

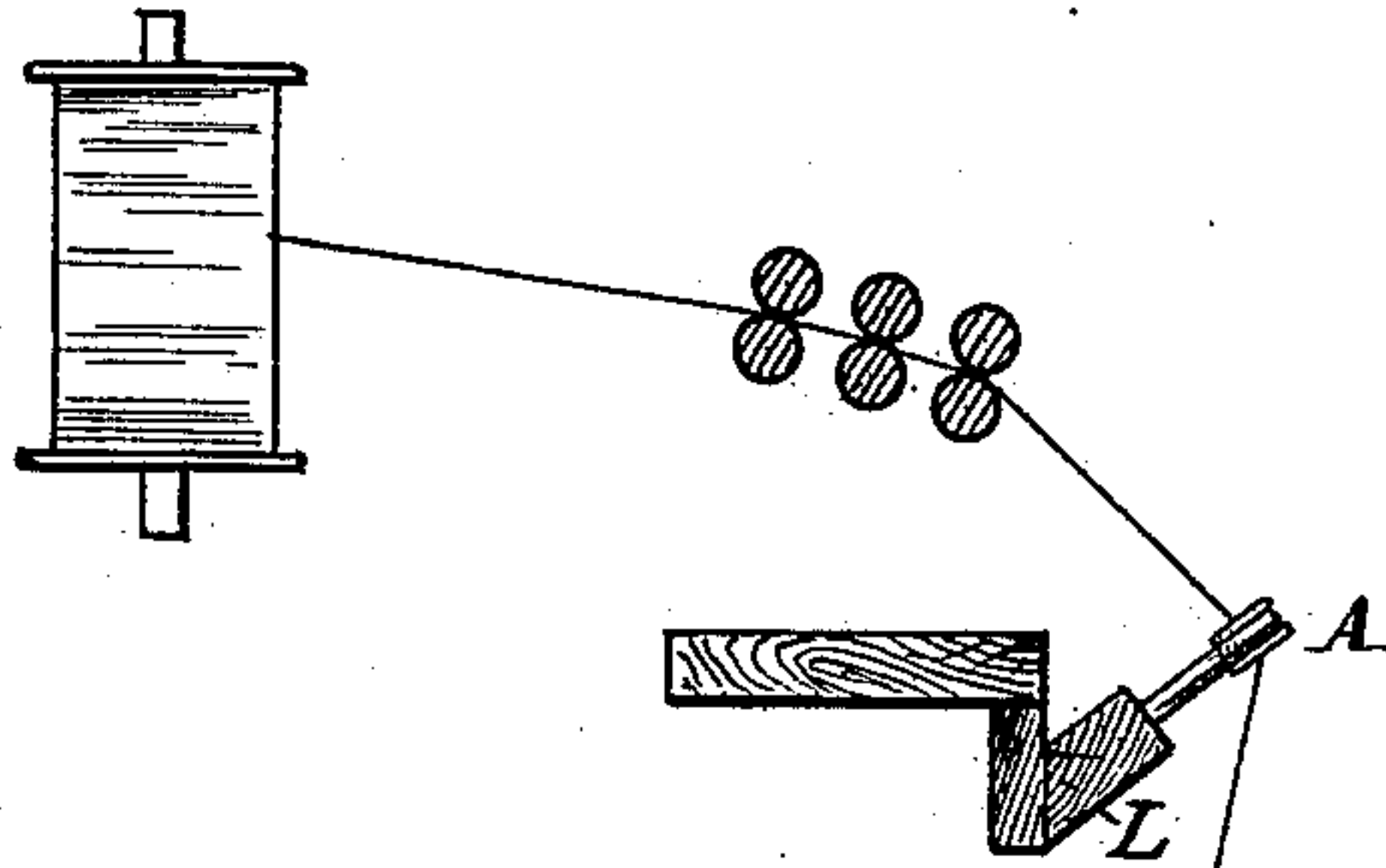


Fig. 1

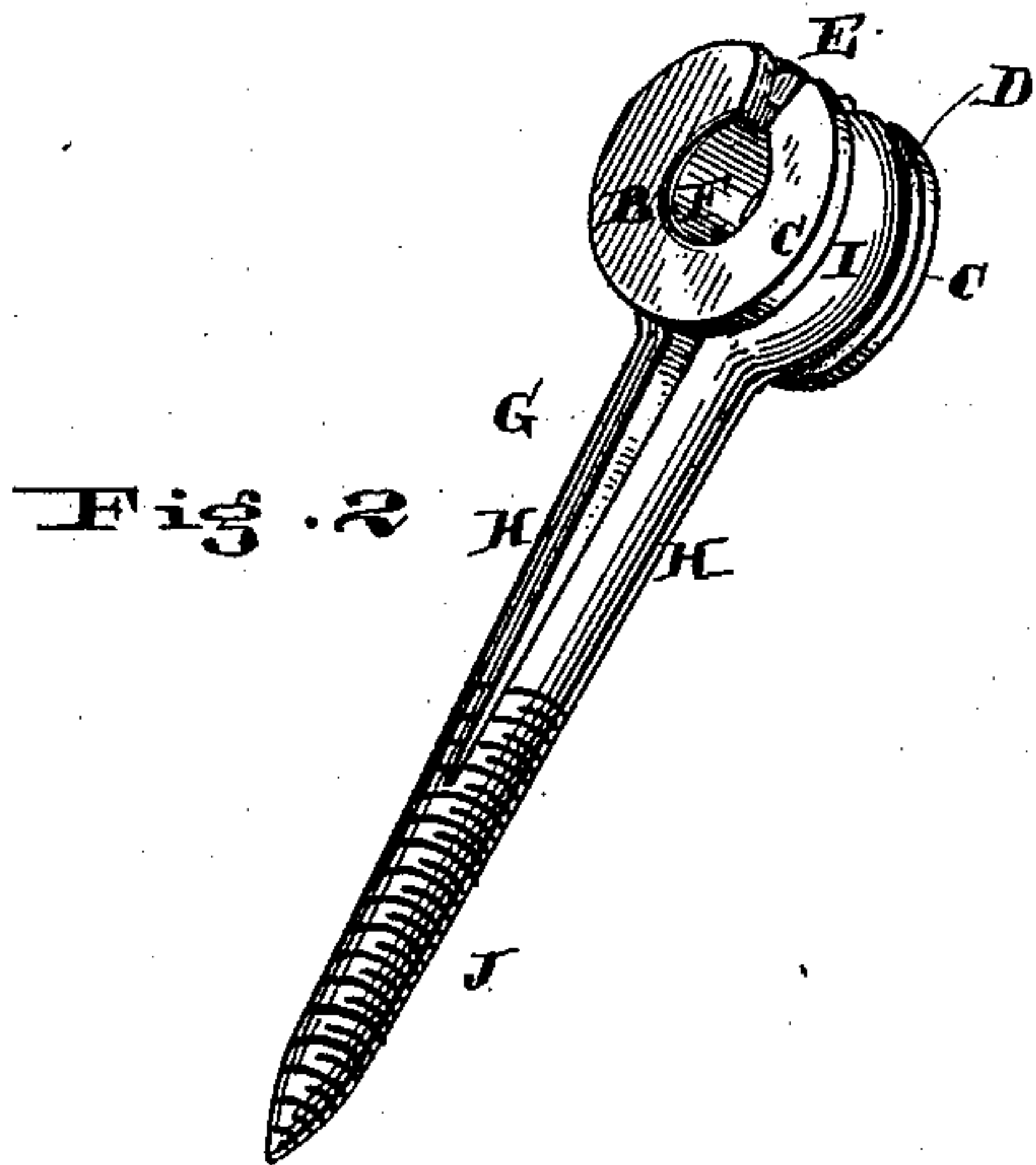
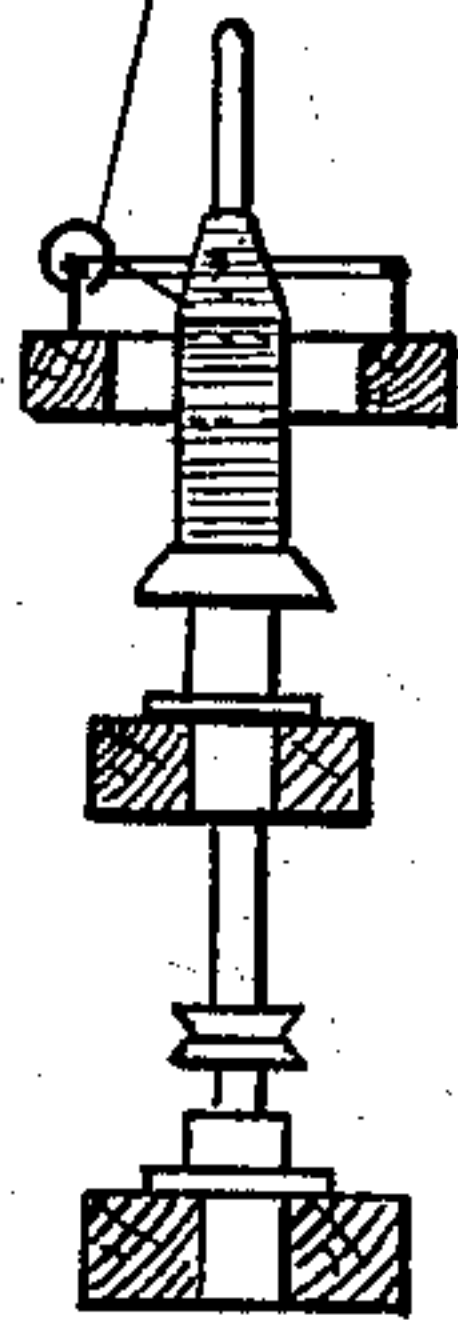


Fig. 2

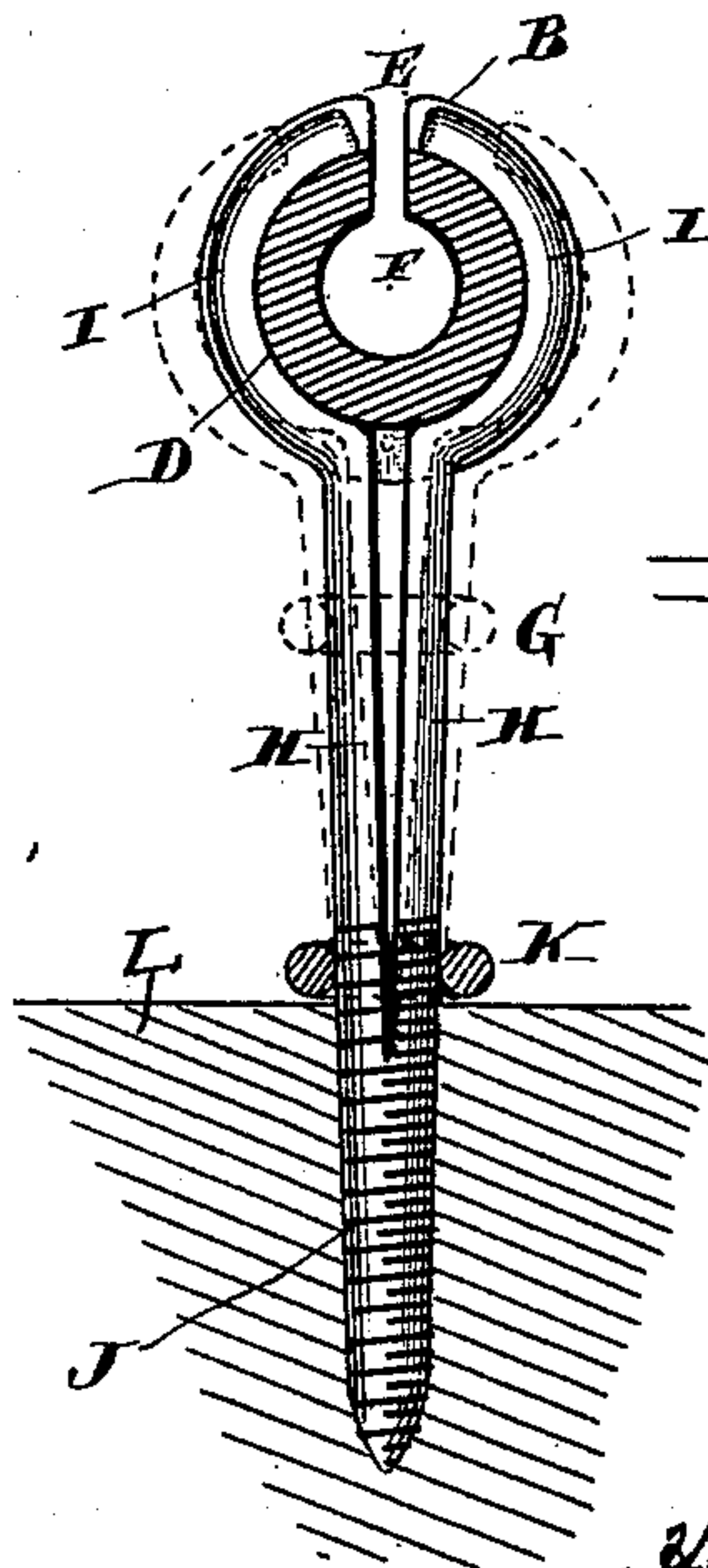


Fig. 3

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UNITED STATES PATENT OFFICE.

HENRY R. MITCHELL, OF PHILADELPHIA, PENNSYLVANIA, AND JOSEPH E. JENCKES, OF PAWTUCKET, RHODE ISLAND.

THREAD-GUIDE FOR SPINNING-MACHINES, &c.

SPECIFICATION forming part of Letters Patent No. 360,969, dated April 12, 1887.

Application filed May 27, 1885. Serial No. 166,802. (No model.)

To all whom it may concern:

Be it known that we, HENRY R. MITCHELL, of the city and county of Philadelphia, and State of Pennsylvania, and JOSEPH E. JENCKES, of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Thread-Guides for Spinning-Machines, &c., of which the following is a specification.

Our invention has reference to thread-guides for spinning and twisting frames; and it consists in certain improvements set forth in the following specification and shown in the accompanying drawings, which form part thereof.

Heretofore thread-guides have been formed of metal, porcelain, and glass, either separately or combined. U-shaped porcelain guides have been made and combined with a piece of spring-wire adapted to fit around the lower part of same and snap over the upper flat edges. This construction, however, was not adapted to spinning or twisting frames, but only suitable for bobbin-winders, and was defective, in that the thread-guide was too open, allowing disengagement of the thread, and the wire was not sufficiently positive in its clamping action, soon becoming worn and losing its tenacity or grip on the thread-guide proper.

We are aware that insulators for telegraph-wires have been made with a slotted spool of porcelain, which has been loosely clamped between two rigid curved irons, which, when placed side by side, form a jaw for said spool, and a divided point, which is screw-threaded for attachment to the wood support. The spool in this construction is prevented from turning, to prevent the wire getting out of the spool, by a pin or screw placed between the two irons forming the jaw. Such a device is shown in patent to Bigean, No. 234,523, of 1880, and we claim nothing therein set forth. That device, however, is unlike ours, in that the holder is entirely divided, rendering it difficult to bring the threads of the screw-threaded points in line, and in that they do not clamp the porcelain spool with a spring action—a feature found necessary for economy of time and construction in thread-guides.

The object of our invention is to provide a simple form of thread-guide and clamp or

holder therefor which shall embody cheapness, durability, adaptability to all machines, and adjustability.

In the drawings, Figure 1 is a sectional elevation representing the essential working parts of a spinning-frame. Fig. 2 is a perspective view of our improved thread-guide and its clamp; and Fig. 3 is a sectional elevation of same, showing the application of an additional sliding clamping-ring, and shows the clamping-arms in dotted lines when the thread-guide is unclamped.

A represents the thread-guide, Fig. 1 showing its relative location with respect to the other parts of the spinning-frame. The thread-guide consists, essentially, of two parts—viz., the guide proper, of porcelain, glass, or other vitreous material, and the metallic clamp or holder by which it is detachably secured to the frame of the machine.

The guide proper, B, formed, preferably, of porcelain, is made spool-shaped, having the flanges C C upon both ends, having the guide-aperture F and the thread-inserting slot E. The clamping-iron G is formed of two arms, H H, preferably of half-round metal, united at the bottom in a screw-shank, J, preferably provided with a gimlet-point, so that it may be readily screwed into the wooden frame L of the machine; or, if desired, the shank may be simply pointed. If desired, the screw-threads may extend part way up on the arms H also. The upper ends of these arms are made bent or curved, as at I I, forming jaws or tongs adapted to fit into the groove D, formed on the guide B by the flanges C C, and when clamped together around said guide their free edges do not meet, but leave an opening substantially equal to that marked E in the guide, to allow the ready admission of the thread, though this is not necessary to my invention.

By placing the guide B in the clamping-iron and then screwing the latter into the frame, the two arms H are pressed together, clamping the guide with such a force that it is retained in any position in which it may be turned, but will still allow of its revolution for adjustment. In place of relying upon the act of screwing the holder into the wood to bring the arms to-

gether to clamp the guide B, a ring, K, may be used, which, when pushed up, presses these arms H together in substantially the same manner, the effect being the same in both instances, though the former, being somewhat more simple, would perhaps be preferable.

We are aware of Letters Patent to Bigean, No. 234,523, and Lewis, No. 298,594, for telegraph-wire insulators, and claim nothing therein shown or described, our invention being limited to a specific construction of thread-guide for textile machinery.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A thread-guide for textile machinery, consisting of a cylindrical spool-shaped guide formed of vitreous material and having an annular groove or recess upon its outer periphery, in combination with a clamping iron or holder formed of two spring-arms, the ends of which are bent to form semicircles, or thereabout, and adapted to fit into the annular groove on the guide, and by which it is held

and clamped, the other extreme ends of which arms are united or made integral and provided with a screw-thread, the arms above the union being separated, by which, when the clamp is screwed into the frame of the machine for attachment, the spring clamping-arms are forced together, the springing action of the clamping-arms causing a positive hold on the thread-guide by friction, holding it to any position in which it is placed, and yet allowing it to be readily revolved, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

HENRY R. MITCHELL.

Witnesses:

R. M. HUNTER,

ANDREW ZANE, Jr.

In testimony of which invention I hereunto set my hand.

JOSEPH E. JENCKES.

Witnesses:

J. D. CARPENTER,

J. W. BAKER.