No. 730,492. PATENTED JUNE 9, 1903.

C. G. TIDEMAN.

YARN GUIDE HOLDER FOR SPINNING MACHINES.

APPLICATION FILED OCT. 20, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

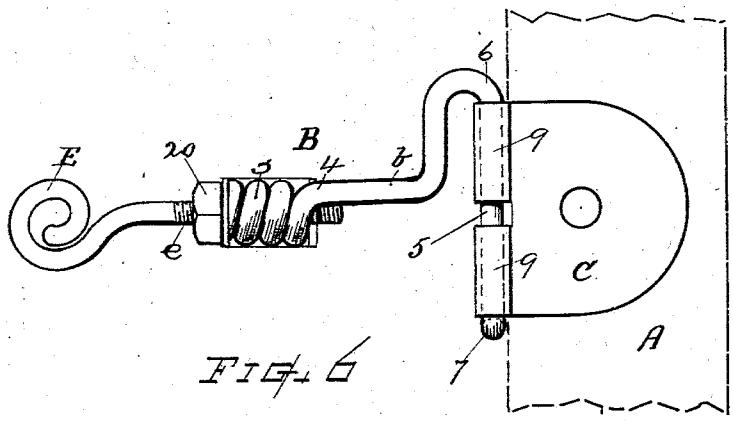

FIG. 6

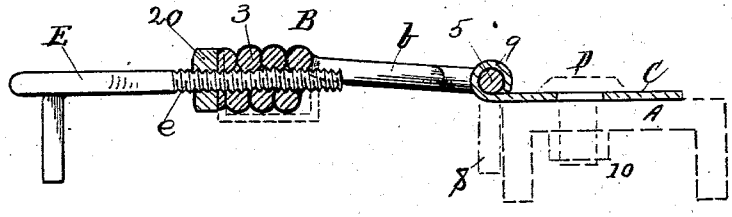

FIG. 7

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Charles S. Bacon

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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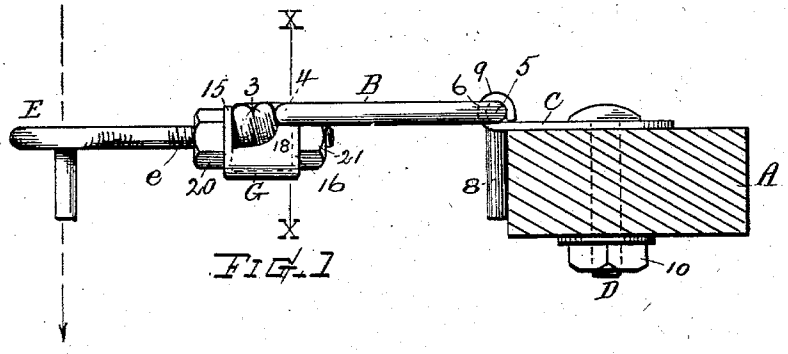

FIG. 1

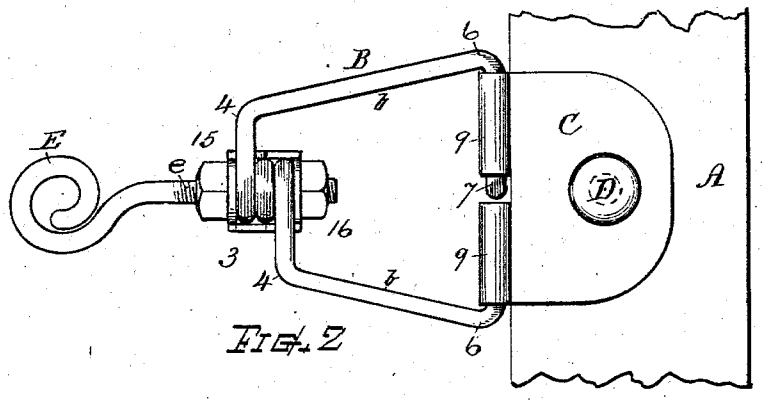

FIG. 2

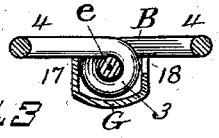

FIG. 3

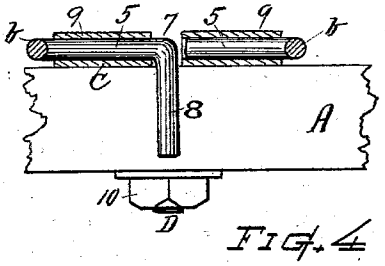

FIG. 4

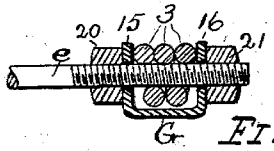

FIG. 5

Witnesses.
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 730,492. Patented June 9, 1903.

UNITED STATES PATENT OFFICE.

CARL G. TIDEMAN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO NILS NILSON, OF WORCESTER, MASSACHUSETTS.

YARN-GUIDE HOLDER FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 730,492, dated June 9, 1903.

Application filed October 20, 1902. Serial No. 127,902. (No model.)

To all whom it may concern:

Be it known that I, CARL G. TIDEMAN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Yarn-Guide Holders for Spinning or Twisting Machines, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons skilled in the art to which this invention appertains to make and use the same.

This invention relates to a hinged yarn-guide holder constructed of wire and to the manner of arranging and combining the parts for adjusting and retaining the guide in the holder and for affording a swinging connection of the guide-holder with the thread board or rail, as more fully hereinafter explained, the objects being to provide a simple, inexpensive, and substantial means for the purpose named, to provide a guide-holder made from wire and having facilities for the proper support and detachable affixment of the guide-eye stem therein, also for the adjustment of the parts for bringing the guide-eye into correct relation to the spinning-spindle.

Another object is to provide a wire guide-holder arm composed of a single piece of wire bent to form a guide-supporting coil and a transversely-disposed hinging-axis and to provide the same with a stop projection for sustaining the arm with the yarn-guide at proper working position.

I attain these objects by the mechanism illustrated in the accompanying drawings, wherein—

Figure 1 represents a side view of a guide-holder embodying my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view at line X X on Fig. 1 looking toward the guide. Fig. 4 is a section at the hinge-joint looking toward the rail. Fig. 5 is a longitudinal vertical section through the socket or coil and clamping devices for retaining the guide in connection with the holder-arm. Fig. 6 represents a modification wherein the guide-holder is made with a single instead of a dual coil-supporting arm; and Fig. 7 is a sectional view illustrating a manner in which the guide-eye shank or stem may be threaded into the guide-holder, said holder being made with an internally-screw-threaded socket coil or helix.

Referring to the drawings, the part marked A represents a portion of the thread board or rail of a spinning frame or machine of usual character, which rail in practice extends the length of the machine and carries as many guide-holders as there are spindles in the machine, all of which guide-holders being similar only one is herein shown.

B indicates my improved guide-holder arm; C, its attaching hinge-plate; D, the attaching-bolt, and E the guide-eye, which latter may be of any suitable or well-known variety. The guide has a screw-threaded shank *e*, which is secured in the guide-holder. The guide-holder B is in accordance with my invention constructed of wire, preferably in a single piece, said wire being bent to form a coiled portion 3, that serves as a head or socket for receiving the stem or shank *e* of the guide and from which coil the wire members, as at 4, on either side are disposed in outstanding relation and are thence extended rearward, forming arm portions *b* of the required length, their rear ends being bent inward at 6 or transversely offset in the same horizontal plane to form the hinging-axes or journal portions 5. At the end of one of these journals the wire is bent, as at 7, and terminates in the form of a downwardly-projecting stop-finger 8.

The hinge-plate C consists of a plate of sheet metal having turned-up hinging-ears 9, that embrace the wire journals 5, and a flat leaf or body portion adapted to seat upon the top of the rail A. Said plate is perforated for the reception of the attaching-bolt D, which preferably extends through the plate and rail, as indicated, and is provided with a flat rounded head and a nut 10 on its lower end. By this means the hinge-plate can be firmly clamped in position, while affording facility for lateral adjustment of the fore end of the guide-holder by slightly swinging the plate to right or left on the bolt C as an axis.

Combined with the coil 3 I provide a nut-seating guard G, consisting of a metal piece that bridges the coil and is provided with perforated end portions 15 and 16, that adjacently embrace the ends of the coil 3 and

form parallel seats for the retaining-nuts 20 and 21, that are arranged upon the screw-threaded shank *e* of the guide at front and rear of the socket. The sides of the guard G are best made to extend upward, as at 17 and 18, and abut against the outstanding wire members 4 at either side of the coil. This produces a firm structure and affords a stop against rotation of the guard when the nuts are turned against its ends.

By the screw-threaded shank *e* and nuts at the ends of the socket-coil facility is afforded for detachment and replacement of guide and for the inward and outward adjustment of the guide to bring its eye in proper alinement with the spinning-spindle when applied to use.

The coil 3 may be made internally threaded to receive the shank *e*, if in any instance so desired, (for example, see Fig. 7;) but, as preferred, its internal opening may be non-threaded and of proper size to permit of the shank being readily introduced therethrough.

This wire guide-holder may in some instances be formed with but one extension-wire or arm-rod *b*, uniting the socket or coil, and a single hinging-journal, the second arm or rod being omitted, (for example, see Fig. 6;) but such form of the guide-holder should be made of heavier wire to give equal lateral rigidity.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. A guide-holder for the purposes specified, consisting of a wire bent to the form substantially as shown, and comprising an outstanding laterally-stiff hinging-arm having at the rear end the transverse hinge-axis portion, and at the front helical coils internally adapted for fitting the shank or stem of a thread-guide; in combination with a thread-guide supported therein, and an attaching-plate hinged upon said hinge-axis portion.

2. A guide-holder for spinning or twisting machinery, made of wire bent into a coil to form a guide-socket, and having backwardly-extending arm portions, the rear ends of which are bent transversely to form hinging-axles, in combination with an attaching-plate having ears hinged upon said axles, and means for securing the thread-guide in said socket.

3. A holder or supporter for the yarn or thread guides of spinning or twisting machines, constructed of wire and comprising integrally the socket-coil, extension portions and transverse hinging-journals, in combination with a hinge-plate for seating upon the support-rail and having hinging ears that embrace said journals, an attaching-bolt passing through said plate for clamping it to the rail, a yarn-guide having a screw-threaded shank fitted in said socket-coil, and means, as threaded nuts on said guide-shank, for adjustably securing the guide in position, substantially as set forth.

4. In a guide-holder for the purpose described, the combination, of a wire-supporting arm having a socket-coil, outstanding rearwardly-extending side members and hinging-journals, a yarn-guide having a threaded shank supported in said socket-coil, a nut-seat guard having perforated end portions that embrace the respective ends of the coil, and side portions that terminate adjacent to the outstanding wire at the sides of said coil, and clamp-nuts threaded upon the guide-shank and seating against the respective ends of said guard, substantially as set forth.

5. The combination, with the thread-board or support-rail, and the removable thread-guide comprising a guiding-eye with a projecting shank or stem; of a guide-holder consisting of a wire bent to form a front socket-coil for receiving the guide-stem, an arm portion for carrying said socket, and a transverse hinge-axis journal, with a downwardly-offset stop-finger approximately at right angle to the axis; and an attaching hinge-plate consisting of a flat perforated seating-leaf having upwardly-rolled hinging-ears that embrace the hinge-axis journal of said holder, and means for securing said hinge-plate to the thread-board, adapted to permit sidewise adjustment of the holder and guide by pivotal or lateral swing of the attaching-plate on its seat, for the purpose set forth.

Witness my hand this 17th day of October, 1902.

CARL G. TIDEMAN.

Witnesses:
CHAS. H. BURLEIGH,
CHARLES S. BACON.