

No. 641,402.

Patented Jan. 16, 1900.

W. L. NORDEN.

GUIDE BOARD FOR TWISTING MACHINES.

(Application filed Sept. 22, 1899.)

(No Model.)

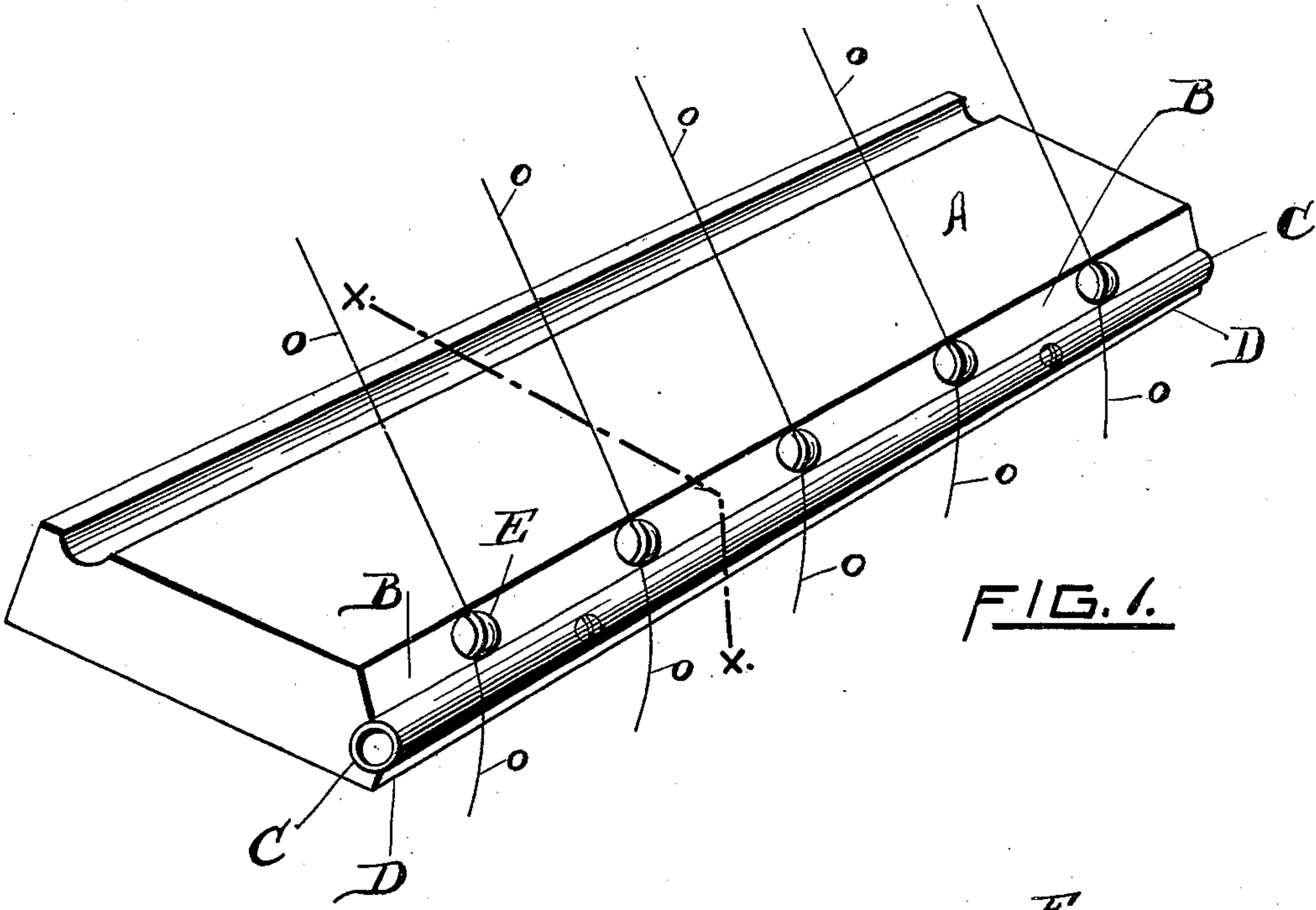


FIG. 1.

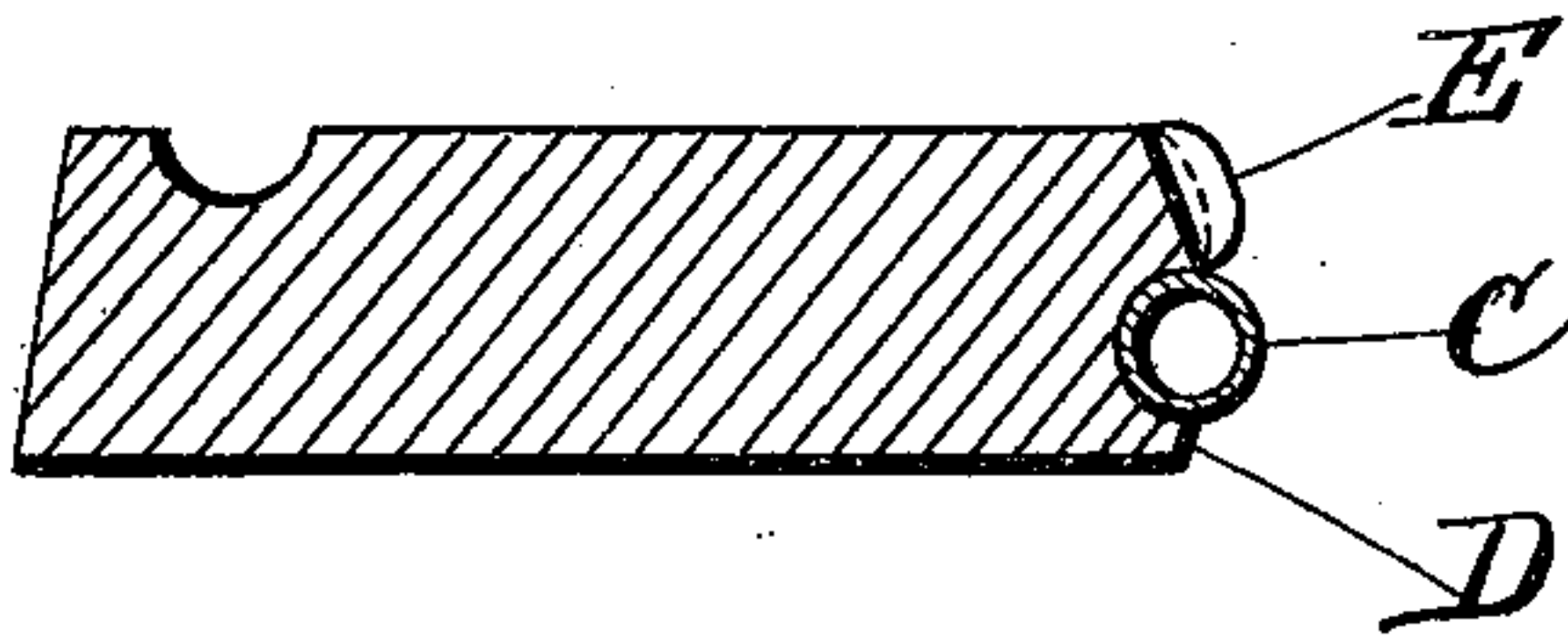


FIG. 2.

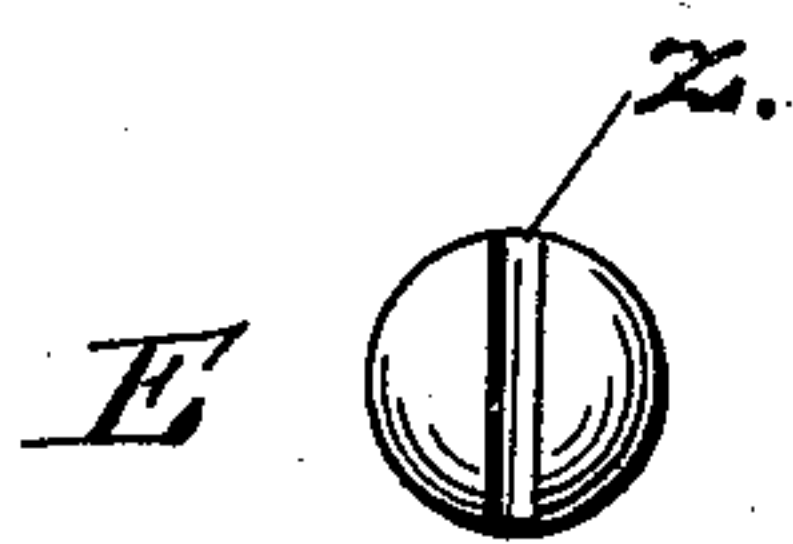


FIG. 3.

WITNESSES.

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WILLIAM L. NORDEN, OF WARWICK, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO SVEN B. SWANSON, OF SAME PLACE.

GUIDE-BOARD FOR TWISTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 641,402, dated January 16, 1900.

Application filed September 22, 1899. Serial No. 731,306. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. NORDEN, a citizen of the United States, residing at Warwick, in the county of Kent and State of Rhode Island, have invented a certain new and useful Improvement in Guide-Boards for Twisting-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to boards used as a part of the frame of twisting-machines and similar mechanisms, wherein a series of threads or strands require a guiding-support intermediate their course between an upper and lower series of spools, rolls, and bobbins.

The object of my improvement is to provide a uniform support and guide for a thread or strand series which shall effectively hold the threads in their proper relative positions throughout their course.

Hitherto guide-boards have been constructed with a bar of glass or similar material running longitudinally along the edge of the board and projecting slightly therefrom, in which were vertical grooves, V-shaped in cross-section, for guiding the threads, and in some instances the grooves have been flanked on either side with upright conical projections to assist in confining the thread in its proper channel. In both cases the result has proved unsatisfactory in that the strand slipped from its normal position or was thrown outside the conical projections, and in the latter event it became necessary for the operator to replace the strand with his fingers. The fragility and weight of the rod itself also proved objectionable.

I attain the objects desired by my construction elaborated in the accompanying drawings, in which—

Figure I is a perspective view of my guide-board with a series of threads engaged thereto. Fig. II is a transverse sectional view on line $x x$, Fig. I. Fig. III is a plan view of a stud.

Similar letters refer to similar parts throughout the several views.

The upper portion of the board edge B is beveled, providing a gradually-inclined face from the upper board-surface A to the bearing-bar C. The latter is a cylindrical tube, preferably of metal, set into the board edge and extending laterally therein throughout the length of the board, with a portion of its side projecting beyond the plane of the bevel B. Beneath the bearing-bar the board edge D is slightly beveled. Above the bearing-bar at convenient intervals occur guide-studs E E. These studs are semispherical in projection and are grooved with deep vertical channels z to allow a passage for the threads. The thread series $o o$ engage with the board by contacting first with the stud-channels z and pass thence to the rod C, against which they rest, being held in their above-described positions by the usual tension on the threads from the mechanism above and below the board.

It will be seen that by the above construction a thread which is temporarily thrown from its channel by a sudden release of tension is automatically guided back into its original position when the tension is resumed by means of the curved surface of the stud.

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

A guide-board for twistors provided with a bevel and a semicircular slot or groove in its forward edge, a series of semispherical studs provided each with a channel secured upon said bevel and adapted to have their flat side flush with said bevel, and a metal tube running parallel with said stud but extending beyond the plane thereof secured in said slot of the board.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM L. NORDEN.

Witnesses:

HORATIO E. BELLOWS,
SVEN B. SWANSON.