

P. B. WHITEHEAD.
 TWISTING AND DOUBLING FRAME.
 APPLICATION FILED OCT. 12, 1907.

924,950.

Patented June 15, 1909.

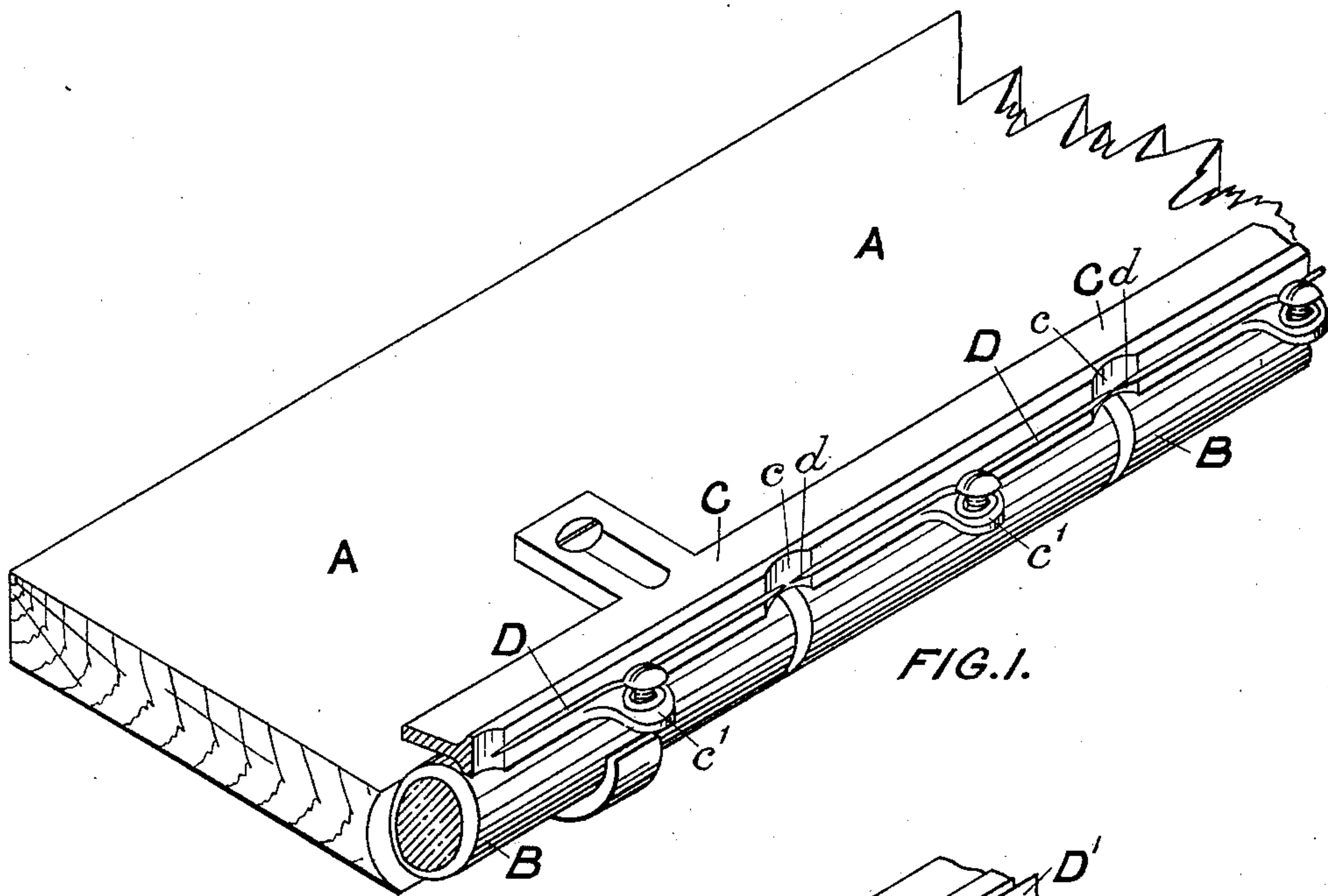


FIG. 1.

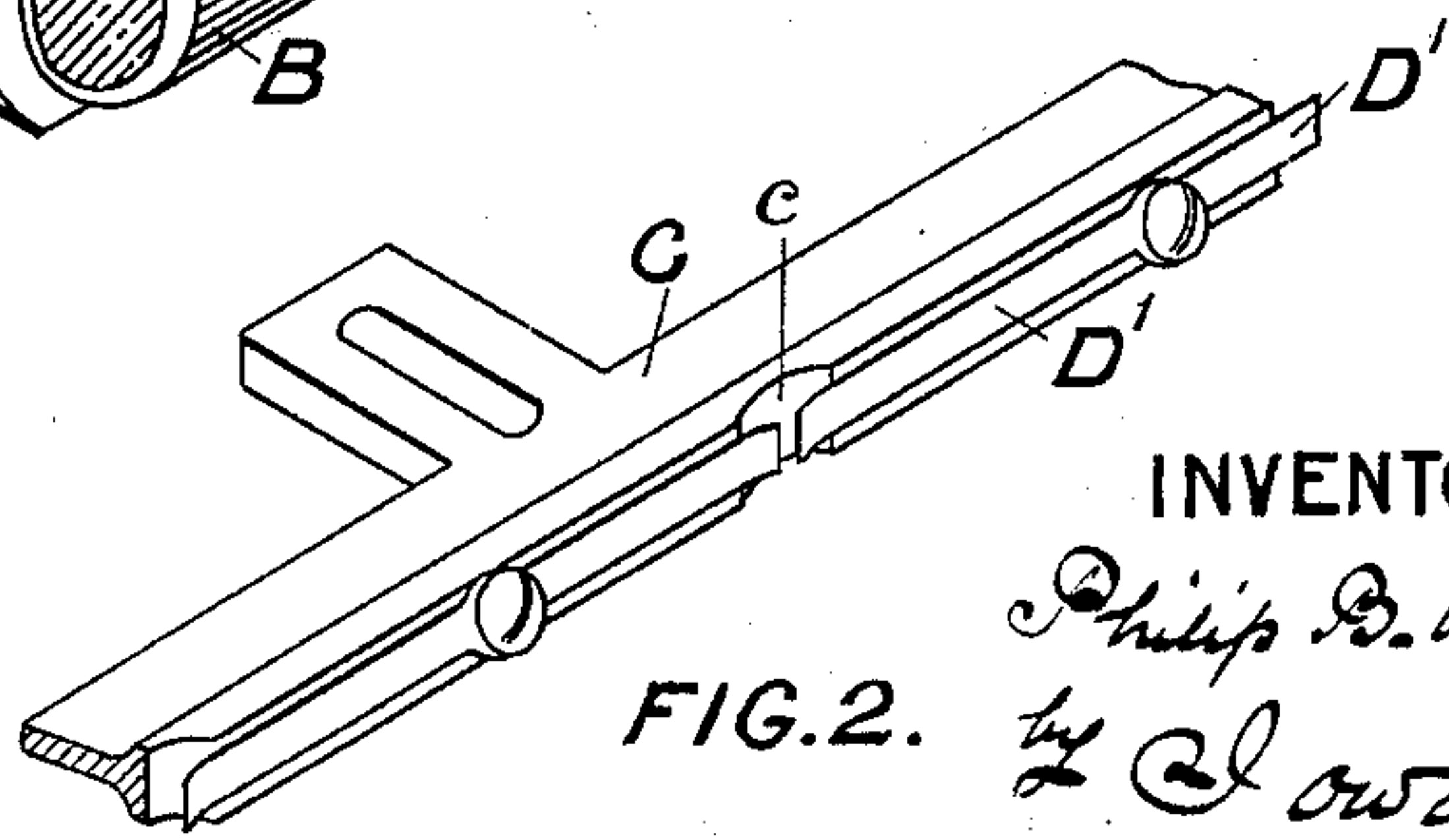


FIG. 2.

WITNESSES.

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UNITED STATES PATENT OFFICE.

PHILIP B. WHITEHEAD, OF STOCKPORT, ENGLAND.

TWISTING AND DOUBLING FRAME.

No. 924,950.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed October 12, 1907. Serial No. 397,121.

To all whom it may concern:

Be it known that I, PHILIP B. WHITEHEAD, British subject, and resident of Stockport, county of Chester, England, have invented certain new and useful Improvements in Twisting and Doubling Frames, of which the following is a specification.

This invention is designed to avoid the formation of fourfold or double thread by reason of a broken end or thread lashing into an adjacent one.

It consists essentially in the application to the threadboard of spring plates or clips which will rest against the front edge and present a gripping edge to each thread so that should the thread be drawn out of or leave its course it will be caught between the clip and edge of the board and caused to run slack between it and the rollers.

The invention will be fully described with reference to the accompanying drawings.

Figure 1 is a perspective view of part of a thread board of a doubling frame showing one form of the invention. Fig. 2 is a similar perspective view showing another form of the invention.

The thread board A which is placed below or in front of the rollers and the glass cane or rod B attached to the front edge of the board are of the ordinary or any suitable construction.

In the arrangement shown in Fig. 1, to the front edge of thread board A above or below the glass cane or rod B now usually employed I attach a rail or bar C made from metal, glass, earthenware or other material with notches or grooves *c* in the face through which the yarn is directed by any suitable guide so as not to touch the bar C on its way from the roller to the spindle. The rail or bar C is also provided with lugs *c'* to which twisted wires D are affixed to the rail the ends of the wires resting against the rail and

the points *d* projecting across the notches or grooves *c* and almost touching leaving just sufficient space between to permit of the thread passing through into the notch or groove *c* behind.

Instead of wires D to form the clips flat pieces D' of spring steel or metal may be affixed to the edge of the rail with the ends projecting over the notches or grooves therein.

In the event of an end breaking and lashing into its neighbor the ends are drawn out of the notch or groove *c* and forced between the rail C and the wire or spring clip D or D' thereby securing the ends and preventing fourfold winding upon the spindle.

What I claim as my invention and desire to protect by Letters Patent is:—

1. In a twisting or doubling machine the combination with the thread board and rod B affixed thereto, a rail C attached to the thread board provided with a number of notches or grooves, a number of spring pieces with ends projecting over the notches or grooves in the rail, such spring pieces being secured to the front of the rail by screws substantially as described.

2. In a twisting or doubling machine the combination with the thread board A, of a bar C attached thereto, provided with notches *c* in the face thereof, and lugs *c'* and twisted wire springs D affixed thereto lying against the rail with ends *d* projecting across the said notches and screws for securing the springs in position substantially as described.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

PHILIP B. WHITEHEAD.

Witnesses:

J. OWDEN O'BRIEN,
HARRY BARNFATHER.