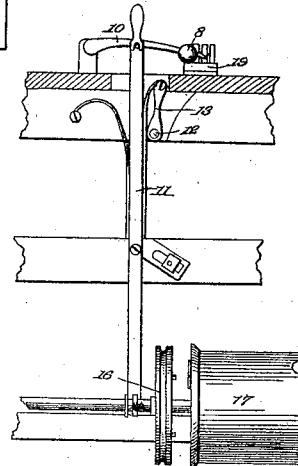
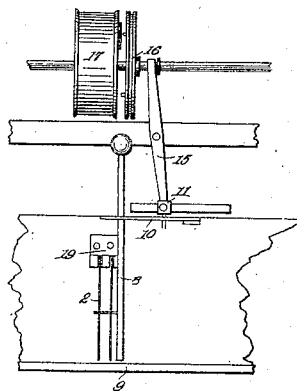
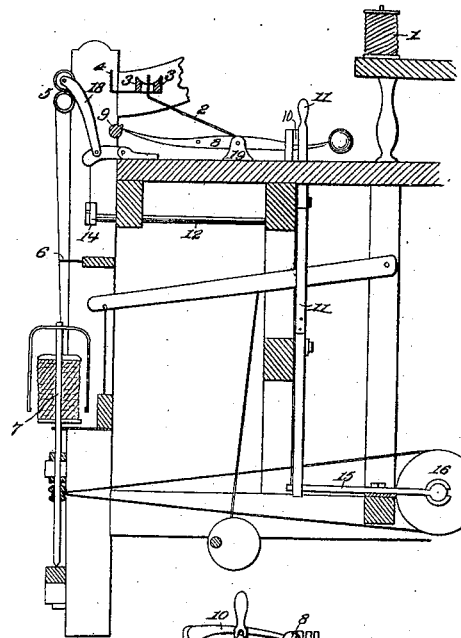
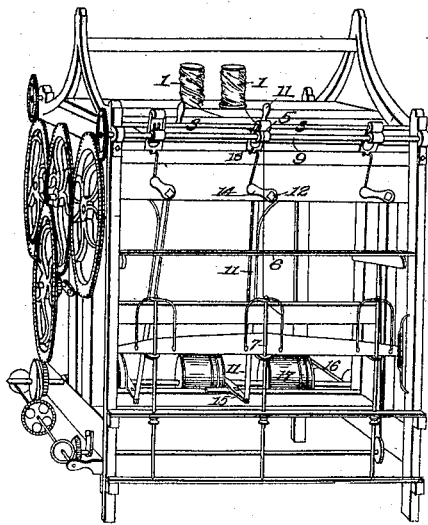


No. 352.

PATENTED AUG. 15, 1837.

J. GOLDING.  
SPINNING,



# UNITED STATES PATENT OFFICE.

JOHN GOLDING, OF MANSFIELD, CONNECTICUT.

## MODE OF PREVENTING THREAD FROM GOING TO WASTE IN MACHINERY FOR DOUBLING AND TWISTING SEWING SILK, WORSTED, COTTON, AND LINEN THREAD.

Specification of Letters Patent No. 352, dated August 15, 1837.

*To all whom it may concern:*

Be it known that I, JOHN GOLDING, of Dedham, in the county of Norfolk and Commonwealth of Massachusetts, on the eleventh day of March, A. D. 1837, and now this 20th day of July, A. D. 1837, a resident of Mansfield, in the county of Tolland and State of Connecticut, did on the said 11th day of March, A. D. 1837, invent a new and useful Improvement in Machinery for Doubling and Twisting Sewing Silk, Worsted, Cotton, and Linen Thread, and that the following is a full and exact description.

The nature of my invention, is the application of machinery to a doubling and twisting frame to create a motion which will prevent the thread from running to waste, should the attendant be absent, the motion to be governed by the breaking of the thread.

To enable others skilled in the art, to make and use my invention, (Section I) I construct the frame in any of the modern forms with gears and an eccentric or heart motion thereto attached to guide the thread on the spool.

The following is a full description and operation of what I claim to be the inventor of, as in improvement, to the machinery for "doubling and twisting" to obtain the motion to prevent the thread from running to waste (viz): Instead of a common cylinder in (Section II) the center of the frame, which turns the spindle I put a shaft, with pulleys thereon, said pulleys are in couples, one is stationed on the shaft, the other loose also apply thereto feeding-down-rollers (and spindles mounted in the known manner) instead of the top feeding-down-roller being stationary; on the under one, I put on a hanger, supporting it fixed with a loose joint, at the lower end, which is to be raised or lowered by moving of levers as hereafter described. (Section III) I place on the frame to each spindle three levers and a shaft, with a crank on each end, one balance lever on the upper part of the frame; which is overbalanced by wires No. 2, a shaft running the length of the frame, which revolves No. 9 placed at the end of lever No. 8 with a tooth or cog projecting out of the shaft, pointing to the end of each balance lever No. 8. On the other end of the balance lever I place a perpendicular lever No. 11 supported by a stud on the girth one-third dis-

tance from the bottom. The bottom of this lever is connected with a horizontal lever No. 15 which is placed with a stud in the center on another girth, the other end of this lever is linked to the loose pulley No. 16, to the perpendicular lever, two steel springs are fastened one on each side projecting upward.

I then connect one of the springs to crank No. 13, which is on a shaft No. 12, that runs cross-ways of the frame supported by two girths under the balance lever the other spring is secured to the girth, on the end of shaft No. 12 a similar crank 14 which is stationary on shaft No. 12, to this crank I connect a wire, and hook it up to the roller-hanger No. 18, moving the perpendicular lever to the left, slides the loose pulley No. 16 in couple, and at same time draws down the roller-hanger No. 18 and sets the spindle to which the thread is attached, in this operation I secure the perpendicular lever No. 11 from flying back, with a latch, No. 10, which lays over a pin projecting out of the upper end of lever No. 11 by raising up the latch, the spring lever will fly to the right and slide the loose pulley out of couple which stops the spindle and raises the top roller. (Section IV) I then take the thread from the spool No. 1 and raise up the lever wires No. 2 which lays over the balance lever No. 8. I put a thread through each wire drawing them over the glass case No. 3 then draw them both together through the guide wire No. 4, thence between the feeding down roller No. 5 through the lower guide wire No. 6 and fasten the thread to the spool or spindle No. 7. I take hold of the springlever No. 11 and slide to the left and secure by latch No. 10, this draws down roller-hanger at same time slides loose pulley No. 16 in couple which puts the spindle No. 7 to which the thread is attached in motion.

In case the thread breaks the lever wire No. 2 drops and falling on a projecting wire on balance lever No. 3 and over balancing the lever, will bring the end in contact with the tooth or cog projection from the revolving shaft No. 9, this raises the opposite end of the lever; pries up the latch No. 10, which unhooks the perpendicular spring lever No. 11, this flies back, draws crank No. 13, which is stationary on shaft No. 12 toward it; this

gives an upward motion to crank No. 14; at the other end of shaft No. 12, being connected by a wire with roller-hanger No. 18 raises the upper-feeding-down-roller and stops the thread from drawing down. The lower end of perpendicular lever No. 11 being, connected with horizontal lever No. 15 slides the loose pulley No. 16 out of couple, and stops spindle No. 7, thus by a thread breaking stops the spindle to which the thread is attached and throws up the top-feeding-down-roller, which stops the thread from drawing down and entirely prevents waste.

What I claim as my invention, and desire to have secured by Letters Patent, is—

The machinery described in this application, in sections Nos. two and three and oper-

ation, described in section No. four, which arrangement of machinery, by the breaking of the thread, stops the spindle, and throws the feeding-down-roller up and prevents the thread from running to waste, to be applied to a "machine for doubling and twisting sewing silk, worsted, cotton and linen thread" using for that purpose any modification of the machinery herein described, that will produce the intended effect, to stop the spindle and throw up the feeding-down-roller by the breaking of the thread to prevent waste.

JOHN GOLDING.

Witnesses:

WILLIAM WILLIAMS,  
JOEL W. WHITE.