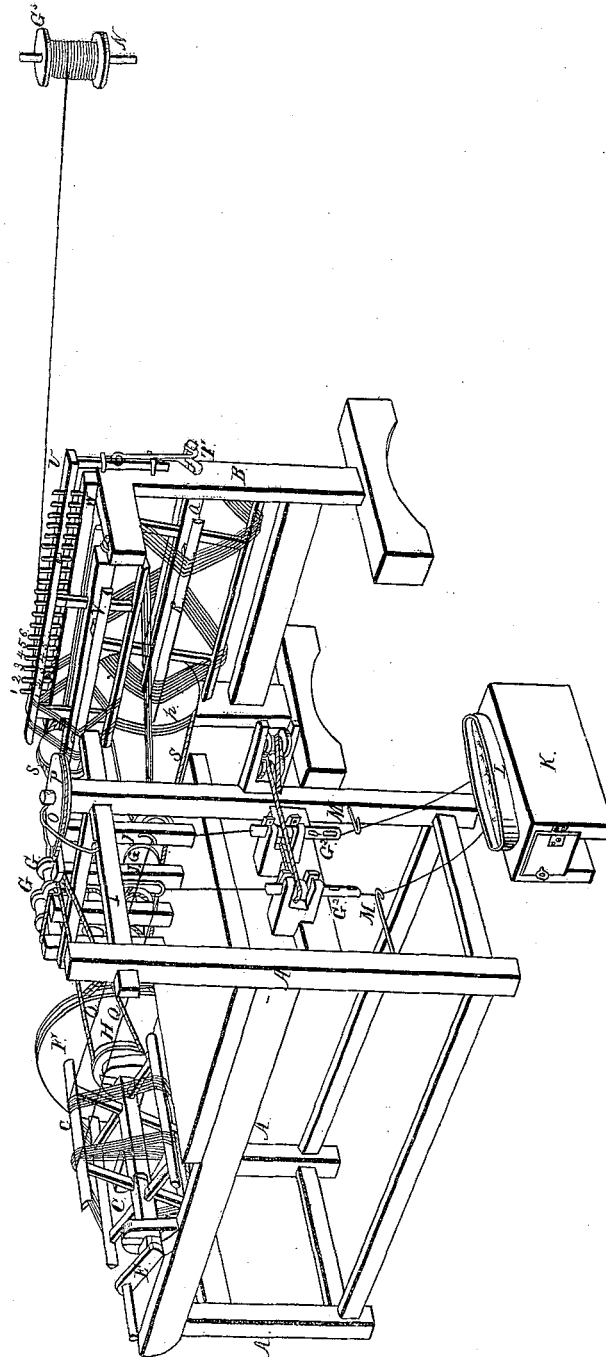


G. Heritage.
Silk Winding Mach.

N^o. 1871.

Patented Nov. 26, 1840.



UNITED STATES PATENT OFFICE.

GEORGE HERITAGE, OF CHESTERTOWN, MARYLAND.

MACHINE FOR SKEINING SILK.

Specification of Letters Patent No. 1,871, dated November 26, 1840.

To all whom it may concern:

Be it known that I, GEORGE HERITAGE, of Chestertown, in the county of Kent and State of Maryland, have invented a new and useful Machine for Skeining Silk and other Kinds of Thread, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the machine in combination with a machine for spinning, reeling, &c.

The stand B for containing and supporting the operative parts of this machine is made of suitable size and strength for the purpose intended.

A rod R for winding the silk, after it has been twisted by the spindles b^2 in passing from the cocoons to the reel c , is placed in the stand B at the side of the main frame A, and is turned by a band S leading from a large pulley p on the axle of the rod R to one of the small pulleys on the axle D to which the power is applied.

On the axle a of the reel R are cranks T for elevating and depressing a bar V containing a row of vertical pins 1, 2, 3, 4, 5 &c., for skeining the silk.

A straight horizontal bar W containing a row of vertical pins 1, 2, 3, 4, 5 &c. similar to those in movable bar is fixed on the top of the stand B in a permanent manner in a horizontal position and parallel with the said rising and falling bar.

Another reel V is placed in the stand B turned by the band S passed over a pulley q on its axle and around the small pulley on the main axle D, which reel V is smaller than those before described and is designed for the purpose of receiving the silk in skeins from the reel R, the said reel being of a diameter to suit the size of skein required and changeable at pleasure.

Operation: The silk being first drawn from the cocoons and gently twisted by the spindles b^2 wound upon reel C and then upon reel R and three or four, or more, of the threads twisted by spindles in frame A and then double twisted by the spindles turning in contrary directions, is taken on its spool b^3 and placed upon a stationary spindle N in an oblique direction from the stand B from whence it is conducted around pin No. 1 of the rising and falling bar and around pin No. 1 of the stationary bar and

from thence to the third or small reel V around which it is wound. The wrist of the crank T being up at its highest point when the operation of reeling a skein commences, will, when the skein is completed, have performed one revolution and be in the same position that it was in when it started, by means of turning the crank E on the main axle D and the pulley on said axle which is banded with pulley p on axle a by the band S. And as the movable bar descends the thread will strike against the edge of the stationary bar W and being held in that position and against its pin No. 1 and the movable bar continuing to descend the thread will slip over the head of pin No. 1 of said movable bar and lodge against the next pin or pin No. 2 of the same bar where it will be held until another skein is wound, at which time the movable bar will have ascended and raised the thread from pin No. 1 of the stationary bar and caused it to slip over its head to pin No. 2 of the same bar and so on the operation is continued until all the silk is wound into skeins of a given size, or until the reel is filled. This reel is then removed and an empty one put in its place and the operation is continued. The cross or connecting thread between the skeins are then cut and the ends wound around them which completes the operation.

The same boy or girl who turns the crank E of the reel C turns the whole movable part of the machine at the same time and the twisting performed by the spindles is effected both ways to the right and the left so that in making the double twist the strands that were twisted to the right in the first part of the spinning operation will not be untwisted in the operation of double twisting.

The machine may be operated by steam power and will be found to perform more work in a given time than any other machine for the same purpose yet known.

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

The before described mode of skeining the silk by the arrangement of the movable and stationary bars and rows of pins in combination with the reel as described.

GEORGE HERITAGE.

Witnesses:

W. E. HOWARD,
C. H. WINTHROP.