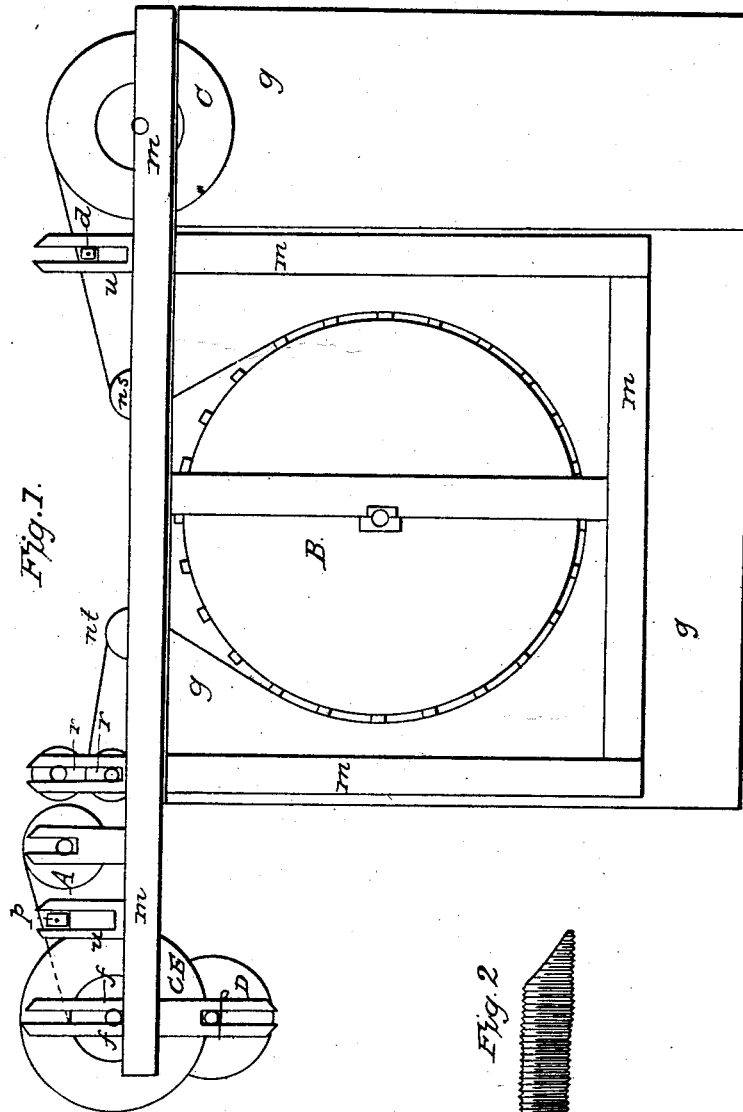


W. SPENCER.
Dyeing Machine.

No. 947.

Patented Sept. 25, 1838.



UNITED STATES PATENT OFFICE.

WM. SPENCER, OF LOWELL, MASSACHUSETTS.

MACHINE FOR DYEING YARN FROM THE BEAM.

Specification forming part of Letters Patent No. 947, dated September 25, 1838; Reissued May 28, 1840, No. 20.

To all whom it may concern:

Be it known that I, WILLIAM SPENCER, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and
5 useful Machine for Dyeing Yarn from the Beam; and I do hereby declare that the following is a full and exact description of the same, reference being had to the drawings annexed and made a part of this specification.

The drawing represents a section of the machine.

m m m is a wooden frame.

C is a common yarn beam.

15 *o d* and *o p* are reeds supported at each end by stands *u u—n s* and *n t* are grooved rollers, see Figure 2, supported by the sides of the frame *m m m*.

20 *B* is a slotted reel made to revolve immersed in a dye.

r r are a pair of squeeze rollers.

A is a steam cylinder.

25 *C E* is a common yarn beam running between stands as *f f* and resting its weight on the wooden roller *D* to which the power to move the machine is applied.

30 The whole of the slatted reel *B* and the lower half of the beam *C* are inclosed in a vat *g g g* in which the dyeing material is placed.

35 The operation of this machine is as follows—A common beam of yarn as it comes from the warping frame is placed on the frame of the machine in the place represented on the drawing as occupied by the beam *C*. The threads of yarn from this beam are

then passed through the reed *o d* and over the grooved roller *n s*, see Fig. 2, a single thread only in each groove. The threads are then passed into the dye vat *g g g* and under and nearly around the slotted reel *B*; then out of the vat *g g g* and over the grooved roller *n t*, one thread only in each groove—then between the squeeze rollers *r r* over the steam cylinder *A*, by which they are dried, and then through the reed *o p* on to the beam *C E* to which the ends of the threads may be attached. The moving power, which may be by crank or pulley, is then applied to the roller *D* which as it revolves carries around the beam *C E* which rests upon it, and the yarn is wound from the beam *C* on to the beam *C E* passing on its way through the dye vat as above described. By changing the application of the power from one of the beams to the other and back the yarn may be passed forward and backward through the dye, if necessary, any number of times that may be required.

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

The combination of the slotted reel with the reeds, grooved rollers and squeeze rollers and steam cylinder, and the application of said combination to the beam of yarn for the purpose of passing the yarn through a dye and drying and replacing it on a beam.

WILLIAM SPENCER.

Witnesses:

ALFRED GILMAN,
J. W. MANSUR.