

F. H. PERRY.

Stop Motion for Warping Machines.

No. 125,689.

Patented April 16, 1872.

Fig II.

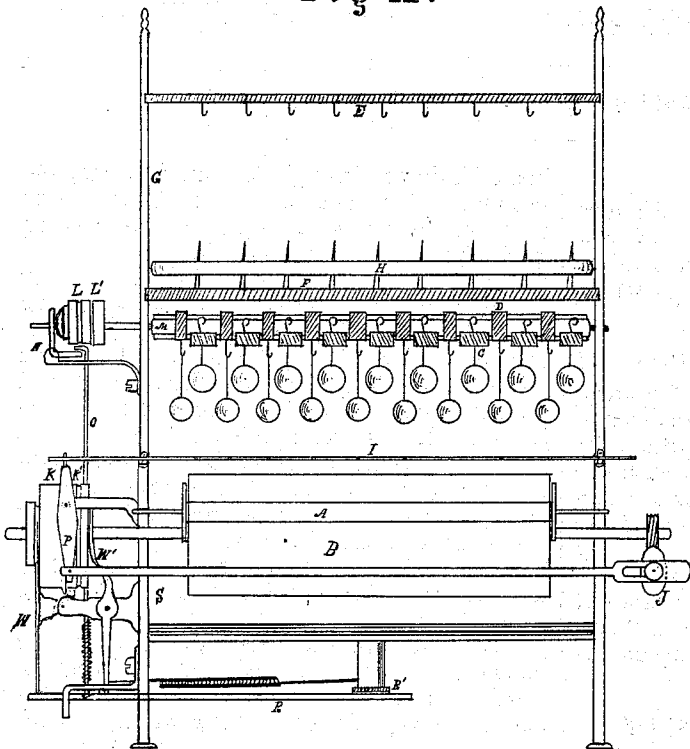


Fig I.

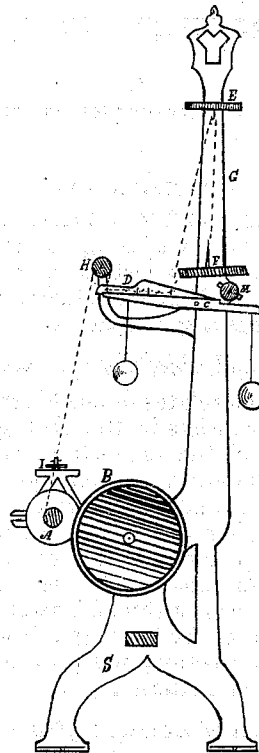


Fig III.

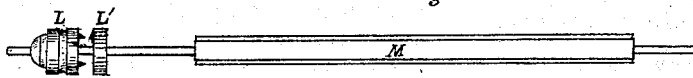


Fig V.

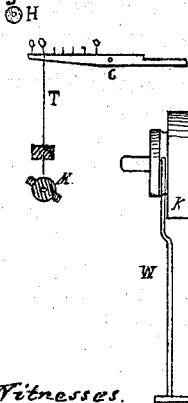
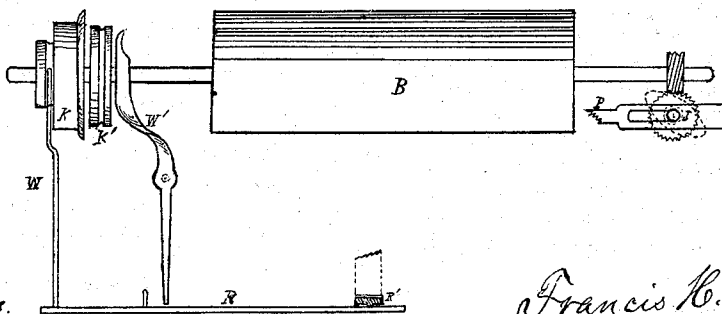


Fig IV.



Scale for 1 Ft.

Witnesses.

C. Poole

Gas. Story

Francis H. Perry
By J. B. Woodruff Attorney

UNITED STATES PATENT OFFICE.

FRANCIS HENRY PERRY, OF NIAGARA FALLS, NEW YORK, ASSIGNOR OF ONE-FOURTH OF HIS RIGHT TO HENRY S. WARE, HANS NIELSON, AND DANIEL J. TOWNSEND, OF SAME PLACE.

IMPROVEMENT IN STOP-MOTIONS FOR WARPING-MACHINES.

Specification forming part of Letters Patent No. 125,689, dated April 16, 1872.

SPECIFICATION.

I, FRANCIS HENRY PERRY, of Niagara Falls, in the county of Niagara, State of New York, have invented certain Improvements in Stop-Motion for Warping-Machines, of which the following is a specification:

Nature and Objects of the Invention.

My invention relates to machinery for warping; and it consists in the arrangement and combination of the creel-stand or frame for holding the bobbins, cops, or spools, with the spooling section, all on one frame, for the purpose of bringing the whole operation of the machine under the eye of the operator. My invention also consists of a self-stopping arrangement in case a thread breaks or runs out for the object of facilitating the work, securing greater perfection, and preventing unnecessary waste of material.

Description of Accompanying Drawing.

Figure 1 is a cross-sectional end view. Fig. 2 is a sectional side view. Fig. 3 is a sectional view of click-wheels L and L' and winged roll M. Fig. 4 is a sectional view of friction driving-pulley K K' and forked spring-lever W, and W' the brake. Fig. 5, a pendant.

General Description.

S is the spooler section. G is the creel-section. B is the main winding-drum. A is the receiving-spool. C is the main lever and balancing weights and bridge-wires *c* and *d*. D is the side lever with adjustable weights. F is the creel-board and pins. E is the thread-hook; M, winged roll. H is a roll. L and L' are the click-wheels. N is the rocker. O is the connecting-rod. R and R' are the horizontal levers. K and K' are the friction-pulleys to drive the machine. I is the thread-guide. P is the vibrating lever. J is the cam-motion. W' is the brake. T is the pendant. W is the forked spring-lever.

Operation.

The yarn is placed upon the creel-pins upon creel-board F; the end is passed up over

hook E, down through the guide-wires, and between the wires *c* and *d* upon C and D, up over roll H, down through the notches on guide I, to the receiving-spool A.

A band connects click-wheels L and L' from K', from whence it receives its motion. Lever R' being pushed to the right causes lever R to move to the left, which operates the spring forked lever W and closes friction-pulley K upon its complement K', which is fast to drum-shaft B, thus starting the machine. At the same time connecting-rod O is drawn down into notch on lever R by an encircling spiral spring; also operating on rocker N, closing click-wheel L into its mate L' upon shaft of winged roll M. The whole machine being now in operation will continue until some of the threads break or run out.

It will be observed that the motion of the machine will draw the levers C and D up toward the roll H and depress the opposite end out of the way of the revolving winged roll M.

Now, in case any thread breaks or runs out the front end of the lever will fall, causing the notch on its opposite end to lock with the wing of roll M, which stops it. Click-wheel L, owing to its conical projections, will be pushed laterally against rocker N, causing connecting-rod O to rise out of notch on R, when the forked spring-lever W will instantly throw the friction-pulley K off, and at the same time apply the brake W' to K', thus causing the machine to stop.

When using very fine slack-twisted yarns, silk, or cotton, the friction-levers are dispensed with and pendant T dropped down through the front end of main lever C to winged roll M, placed below, as shown in Fig. 5.

When the machine is put in motion the thread draws up the pendant T, the lower extremity of which, when down, locks the wing of roll M in a manner similar to the notch on the opposite end of lever C producing like results.

Claims.

What I claim is—

1. A spooling or warping-machine, on which the creel-stand and spooling sections are sup-

ported on one frame, the whole being constructed, arranged, and combined substantially in the manner as and for the purposes herein set forth.

2. The winged roll M, pendant T, the automatic friction adjustable tension-levers C and D with their bridge-wires *c* and *d* and weights, click-wheels L and L', forked spring-lever W, and friction-brake W', driving friction-pulleys

K and K', the whole combined for the purposes as herein set forth and shown.

In testimony whereof I hereunto subscribe my name.

FRANCIS HENRY PERRY.

Witnesses:

LEROY WILLIAMS,
R. McMULLIN.