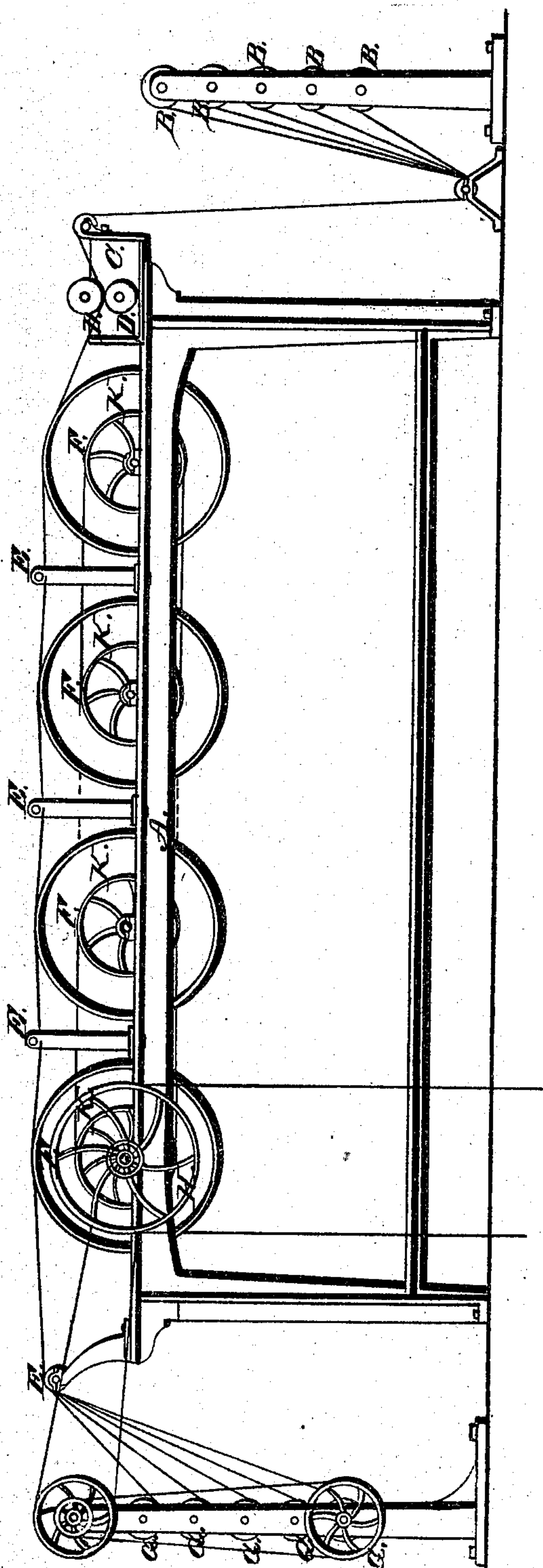


J. M. HECK.
DRESSING SEWING THREAD.

No. 12,885.

Patented May 15, 1855.



UNITED STATES PATENT OFFICE.

JOHN MITCHELL HECK, OF PLYMOUTH, CONNECTICUT, ASSIGNOR TO
HENRY TERRY.

IMPROVEMENT IN DRESSING SEWING-THREAD.

Specification forming part of Letters Patent No. 12,885, dated May 15, 1855.

To all whom it may concern:

Be it known that I, JOHN MITCHELL HECK, of Plymouth, Litchfield county, State of Connecticut, have discovered a new and useful Improvement in the Process for Finishing and Dressing Linen and Cotton Thread, of which the following is a specification.

My improvement consists in saturating the thread with a size or liquid made of mucilaginous ingredients and containing the extract of saponaria-root, salep-root, and soap, and when thus saturated subjecting the thread to the friction of a series of rapidly-revolving brushes, whereby the thread is polished and dried in passing over the brushes, giving the thread a smooth surface and a high luster. The strength of the thread is also increased and it remains flexible and pliable. The extract of saponaria-root, salep-root, and soap are the most important ingredients for the size, and the subjecting the thread to the friction of the revolving brushes is what brings out the luster these extracts contain and gives the smooth surface and finish to the thread. I have found the following ingredients and proportions successful in securing the desired luster and finish to the thread, although they may be varied, according to the judgment, skill, or fancy of the manufacturer.

For white thread: two ounces saponaria or soap root, two ounces salep-root, one-fourth pound soap of Marseilles, one-half pound loaf-sugar, ten pounds water, one and one-half ounce gum-arabic, and one and one-half ounce white starch.

For black thread: one-half pound saponaria or soap root, one-fourth pound salep-roots, ten pounds water, one-fourth pound flaxseed, one-half pound brown sugar, two ounces glue, two ounces gum-arabic, and two ounces brown soap.

For fancy colors: one-half pound saponaria or soap root, one-fourth pound salep-root, ten pounds water, one-fourth pound flaxseed, one-half pound brown sugar, two ounces gum-arabic, and two ounces glue.

The size is thus formed ready for use. It is to be applied to the thread by being placed in a small vat or basin, in which are fixed two rollers, one immediately above the other and between which the thread passes, the under roller turning in the liquid, and thus the thread becomes saturated with the size, as in a common dresser. The thread then passes over a series of rapidly-revolving brushes or like means of producing friction of that character, by which means the thread is dried without any other means as it passes along. A permanent luster and color are thus given to the thread with a smooth surface resembling silk. The strength is increased and the thread remains flexible and pliable.

A convenient arrangement of machinery for applying this size may be made as follows: On an upright frame or creel place a number of spools containing the thread. From these spools the threads unwind and pass into the vat or basin containing the size, and between the two rollers as in a common dresser, then horizontally over the rotary brushes, and are then carried along and taken up on other spools in the ordinary way and by machinery in common use.

It is not the composition itself used for the size nor any particular arrangement of machinery for applying it that constitutes the claim I intend to embrace in this specification; but

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

The using (or, in other words, subjecting the thread to the use, action, and friction) of a series of rapidly-revolving brushes to polish, soften, and dry the thread after having been sufficiently saturated with a size or liquid, substantially such as described, whereby smoothness, luster, pliability, and strength are imparted to the thread.

JOHN MITCHELL HECK.

Witnesses:

AMMI GIDDINGS,
WALLACE A. BISHOP.