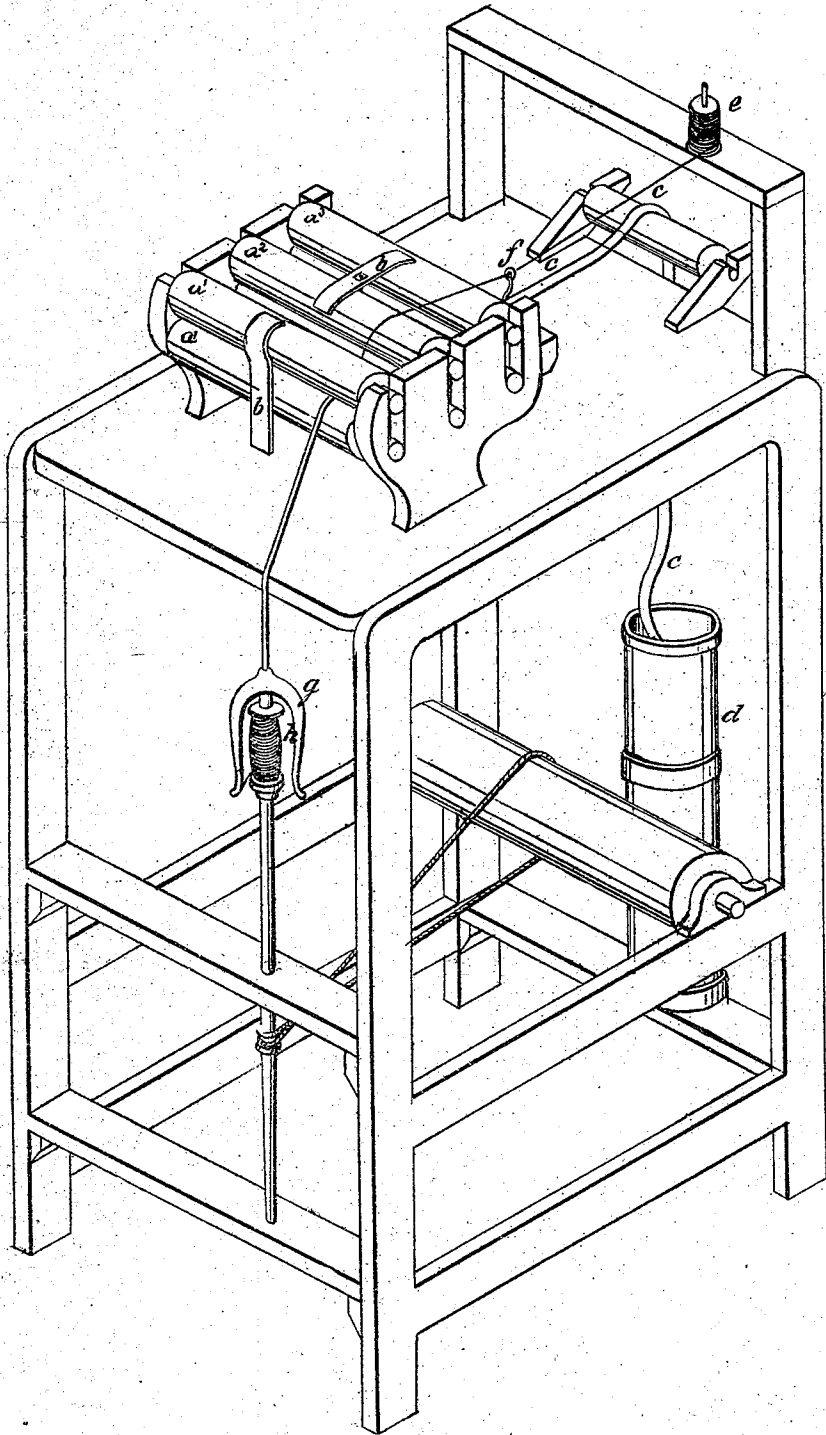


*J. Haslam.*  
*Yarn Covering Mach.*

*Nº 12,467.*

*Patented Feb. 27, 1855.*



# UNITED STATES PATENT OFFICE.

JOSEPH HASLAM, BY HIS HEIRS, JOHN HASLAM, OF NEW YORK, AND JAS. HASLAM, OF SEARSDALE, NEW YORK.

COVERING THREAD WITH WOOL OR SILK.

Specification of Letters Patent No. 12,467, dated February 27, 1855.

*To all whom it may concern:*

Be it known that we, JOHN HASLAM, of the city of New York, and JAMES HASLAM, of Searsdale, Westchester county, State of New York, sole heirs of JOSEPH HASLAM, deceased, who, dying without property, had no executors, do hereby declare that the said JOSEPH HASLAM in his lifetime did invent and apply to use a Method of Covering a Thread of One Material with a Coating of a Different Material by Which Certain Useful Results are Secured; and we further declare that the following specification, taken in connection with the drawings, is a full and exact description of the invention of said JOSEPH HASLAM.

In many kinds of textile fabrics a fine surface or one composed of costly material is a desideratum, but the interior part of the fabric may be composed of a less costly material, not only without injury to the fabric as a whole but even to its benefit. A coarse and strong interior would tend to the durability of the article and would moreover enable the manufacturer to afford it at a less price even when more material was employed and a thicker, warmer and more durable fabric was the result. This object has been attained by employing threads of a cheaper material which in the process of weaving were thrown beneath the surface or at any rate appeared thereon only slightly and it has also been attempted by wholly covering each particular thread of cheap material with a coating of a more costly one. This latter idea has from imperfection of the process in the one method or from its great cost in another plan been hitherto practically unsuccessful. By the former method it was essayed to take a roll of the fine material directly from the carding machine and with this cover a hard thread. The failure arose probably from the want of tenacity of the covering which therefore tended to apply itself in spots instead of being diffused equally over the whole surface of the inner thread. It would moreover be difficult to cause the inside thread to bed itself truly in such a diffuse mass and our belief is that the inventor of that process devised no plan for bedding one material in the other before twisting

them together and further that he never was aware of the absolute necessity of such a course.

The nature of JOSEPH HASLAM'S invention consists in covering a thread of one material with other material applied thereto either as a roving or as a slack twisted yarn, and also in bedding the former into the latter prior to twisting the two together. For this purpose he availed himself of well known machinery of any usual kind the essentials thereof being drawing rollers and a flier and bobbin or their equivalents.

In his process a roving or a loosely twisted thread either in a can or on a bobbin and prepared either in a drawing or a throstle frame or in any well known way is passed through drawing rollers, or through a single pair of rollers only on its way to a flier, while a harder thread of less costly material taken from a bobbin, cop or otherwise is passed through the same rollers or some of them, in such manner that the latter is guided so as to pass through in contact with the center of the former or nearly so, and is by the pressure of the rollers bedded into it. The combined threads then pass to a flier which twists the mass and completely cover the one material with the other, the coating being equable and its thickness being regulated either by the original size of the roving or yarn, or by the reduction thereof during its passage through some of the drawing rollers before it comes in contact with the inside thread.

In the drawings a machine fit for performing this process is represented. In the usual frame are represented three sets of drawing rollers  $a^1 a^2 a^3$ , the upper roller of each set being pressed upon the lower one by clamps  $b b$ , acted upon by proper springs beneath the table. The apparatus for moving these rollers is not represented in the drawing: through all these rollers passes the roving  $c$  from the can  $d$ , or if a loosely twisted yarn be employed, it follows the same track and is supplied from a bobbin occupying the same position as can  $d$ . A hard thread of coarse material wound on bobbin  $e$  passes through the guiding eye  $f$ , over rollers  $a^2$  and  $a^3$  and between rollers

$a' a'$  where it is bedded into  $c c$ , the two threads then enter flier  $g$ , and after being twisted together are deposited upon the bobbin  $h$ .

5 It will be perceived that the thread of coarse material travels over rollers  $a^2$ , and  $a^3$  in a direction contrary to their motion. This course puts a drag on the thread previous to its entry between rollers  $a' a'$  and  
10 insures its being bedded in the roving or loosely twisted thread.

It is apparent that the form and number of parts in the apparatus may be materially varied, while it is still applicable to the  
15 process described and also that well known equivalents of these parts may be used in place thereof to secure an equally good result.

This process is chiefly applicable to the  
20 covering of cotton with wool, or silk but is useful also for covering coarse wool with fine, and we intend by means thereof to make a substitute for satinets and all those

goods which are composed at present of mixed materials in distinct threads. 25

We claim as of the invention of JOSEPH HASLAM deceased—

The method of bedding one thread into a roving, or loosely twisted thread of another material, as also the covering of one  
30 thread by a roving or loosely twisted thread of a different material, substantially in the manner and for the purposes herein set forth.

In witness that the foregoing is a true  
35 description of the invention of said JOSEPH HASLAM deceased we have hereunto set our hands in the city of New York county of New York State of New York on this ninth day of Novr. 1854.

JOHN HASLAM.  
JAMES HASLAM.

Witnesses:

SAMUEL SCHOFIELD,  
ELLIS BARLOW.