

# UNITED STATES PATENT OFFICE.

HENRY TAYLOR, OF TRENTON, NEW JERSEY.

## IMPROVED MACHINE-BELTING.

Specification forming part of Letters Patent No. 41,405, dated January 26, 1864.

*To all whom it may concern:*

Be it known that I, HENRY TAYLOR, of Trenton, in the county of Mercer and State of New Jersey, have invented a certain new and useful Improvement in the Manufacture of Woven Belting, of which the following is a full, clear, and exact description.

It is the object of my invention to produce a strong, cheap, and durable belting for driving machinery, which will adhere better to the pulleys and form an acceptable and highly useful substitute for leather or rubber belting; and to these ends my invention consists in the employment of a belt woven of some fibrous textile material—such as hemp, flax, cotton, or wool—and saturated or coated with a composition consisting of the following ingredients, in about the proportions given, viz: boiled linseed-oil, two quarts; white zinc, one pound; whitening, three pounds; lamp-black, one-fourth of a pound; Japan drying, one-half pint; Ohio mineral, one pound; gelatine or glue, one pound. These ingredients are applied in the following manner: I first dissolve the glue or other equivalent size and then mix it with the Ohio mineral by pouring the mineral into the glue and stirring the mixture thoroughly. I then coat the belting with this mixture, when at a temperature of about 130° Fahrenheit, with a brush; or, if preferred, a vat or bath of this mixture may receive the belting to saturate it, and the excess of the composition may be expressed from the belting by passing it through pressure-rollers. A second coating on the belting after the first one is dried may then be applied in a similar manner or any other equivalent thereto, the object being to stuff the belting well with these members of the composition. Then coat the

belting with boiled linseed-oil alone, and after mixing intimately boiled linseed-oil and whitening in the proportions above given, and coat the belt with this mixture more than once, if necessary, although I find the belting excellent with a single coat. I now mix boiled linseed-oil, white zinc, lamp-black, and Japan drying, and coat the belt with this mixture in about the proportion above named. I use the lamp-black to give a dark color to the belting; but it is obvious that any equivalent drying material may be used of any desired color. When the belting is nearly dry from the last application of the composition it is stretched with force, and passed through polishing-rollers under a heavy pressure, and is thus furnished with a smooth surface of uniform thickness and density.

The belt thus manufactured will derive from the application of my composition substantially in the manner given all the pliability desired in its whole length with perfect uniformity, and will adhere so closely to the pulleys as to work with force, smoothness, and very slight wear.

I do not claim broadly a belt made of fibrous material and coated with an adhesive compound, for this I am aware is not new; but

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

The new article of manufactured belting, constructed substantially as above described and set forth.

In testimony whereof I have subscribed my name.

HENRY TAYLOR.

Witnesses:

B. ROBERSON,  
WM. D. BALDWIN.