

(No Model.)

A. D. WESTBROOK.

BELTING.

No. 351,301.

Patented Oct. 19, 1886.

Fig. 1.

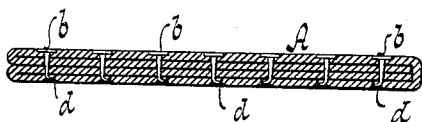


Fig. 2.

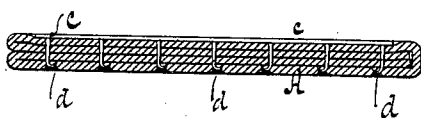
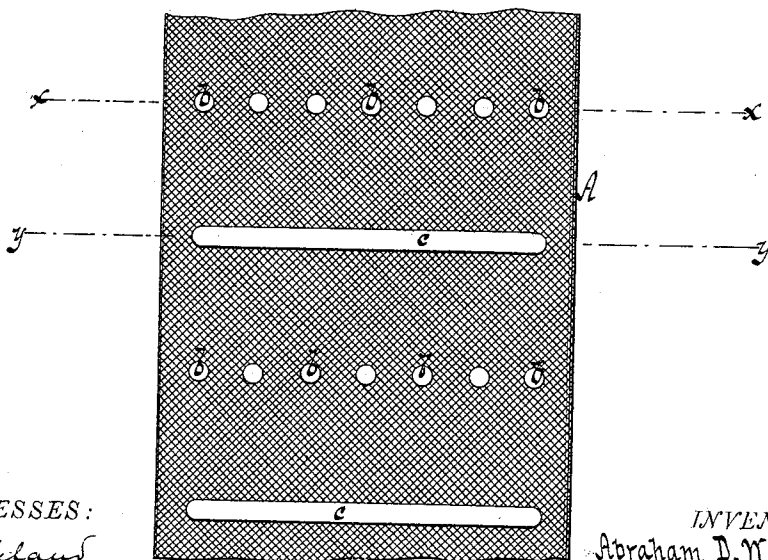


Fig. 3.



WITNESSES:

Atts Hufeland
William Miller

INVENTOR

Abraham D. Westbrook

BY

Van Santvoord & Smith

ATTORNEYS

UNITED STATES PATENT OFFICE.

ABRAHAM D. WESTBROOK, OF TRENTON, NEW JERSEY.

BELTING.

SPECIFICATION forming part of Letters Patent No. 351,301, dated October 19, 1886.

Application filed June 30, 1886. Serial No. 206,732. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM D. WESTBROOK, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented new and useful Improvements in Belting, of which the following is a specification.

This invention relates to belting such as is commonly used in transmitting power; and it consists in a belt composed of two or more layers of textile fabric—such as duck—united by a series of pointed tacks driven through the layers and clinched, the clinched ends of these tacks being sunk into the duck, and the depressions thus formed being filled with a compound, so as to preserve the working-surface of the belt.

In the drawings, Figure 1 is a cross section of my belt on the line *x x*, Fig. 3. Fig. 2 is a similar section on the line *y y*, Fig. 3. Fig. 3 is a plan or face view of a piece of my belting.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the body of my belt, which, in the example there-shown, is composed of four layers, and is formed of a single piece of duck, the outer ends of which are folded to meet in the center, and then both the double portions thus formed are folded onto each other at the center, thereby forming a four-ply belt. These layers are united by a series of pointed tacks, *b*, which are driven through all the layers, and their projecting points are then bent over or clinched, as shown in the drawings. The object of using pointed tacks in the place of rivets is, that before the latter can be inserted it is necessary to punch out a piece of the belt. This operation, if applied to a textile fabric, will cut through the threads of which the same is woven, thereby seriously diminishing its strength, while the pointed tacks when driven through the fabric will only push the threads aside, without cutting them, thereby leaving its strength unimpaired.

By the operation of clinching or bending over the points of the tacks after they have been driven through the belt small depressions *d* are formed in the under or working surface of the belt, which would seriously decrease the tractive power of the belt by a reduction of the working-surface. To avoid this

I fill up these depressions with some suitable compound. One most desirable for this purpose is composed of paraffine, benzine, and lamp-black.

If found desirable, I may saturate the whole belt in oil, or a compound which will resist moisture and add to its pliability.

As all belts will stretch in length from use, and as this stretching is always accompanied by a decrease in width, the latter being caused by the former, and to a large degree dependent on it, it is obvious that the less a belt shrinks in width the less it will stretch in length. To prevent this shrinkage I employ what I term "multiple tacks" *c*—that is, a series of tacks having a common head—which may either extend across the whole width of the belt, as shown in Figs. 2 and 3, or may be made in two or more sections.

I do not desire to confine myself to a folded belt such as shown in the drawings, but desire to make each of the layers of the belt of a separate piece, when convenient.

Heretofore a machine-belt has been composed of a layer of fabric—such as fibrous yarn—surfaced on one or both sides with leather, vulcanized rubber, or its compounds, the whole being united by rivets having their ends sunk into the surface of the belt. Such, therefore, I do not claim.

What I claim as new, and desire to secure by Letters Patent, is—

1. A belt consisting of a series of layers of textile fabric united by a series of pointed tacks driven through the layers and clinched to form depressions in the under or working surface of the belt, each of said depressions being filled with a composition to preserve the continuity of the surface of the belt, substantially as described.

2. A belt composed of two or more layers of textile fabric united by rows of single tacks alternating with tack-strips, said tacks being driven through the layers and clinched, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

ABRAHAM D. WESTBROOK. [L. s.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.