

(No Model.)

A. D. WESTBROOK.

BELTING.

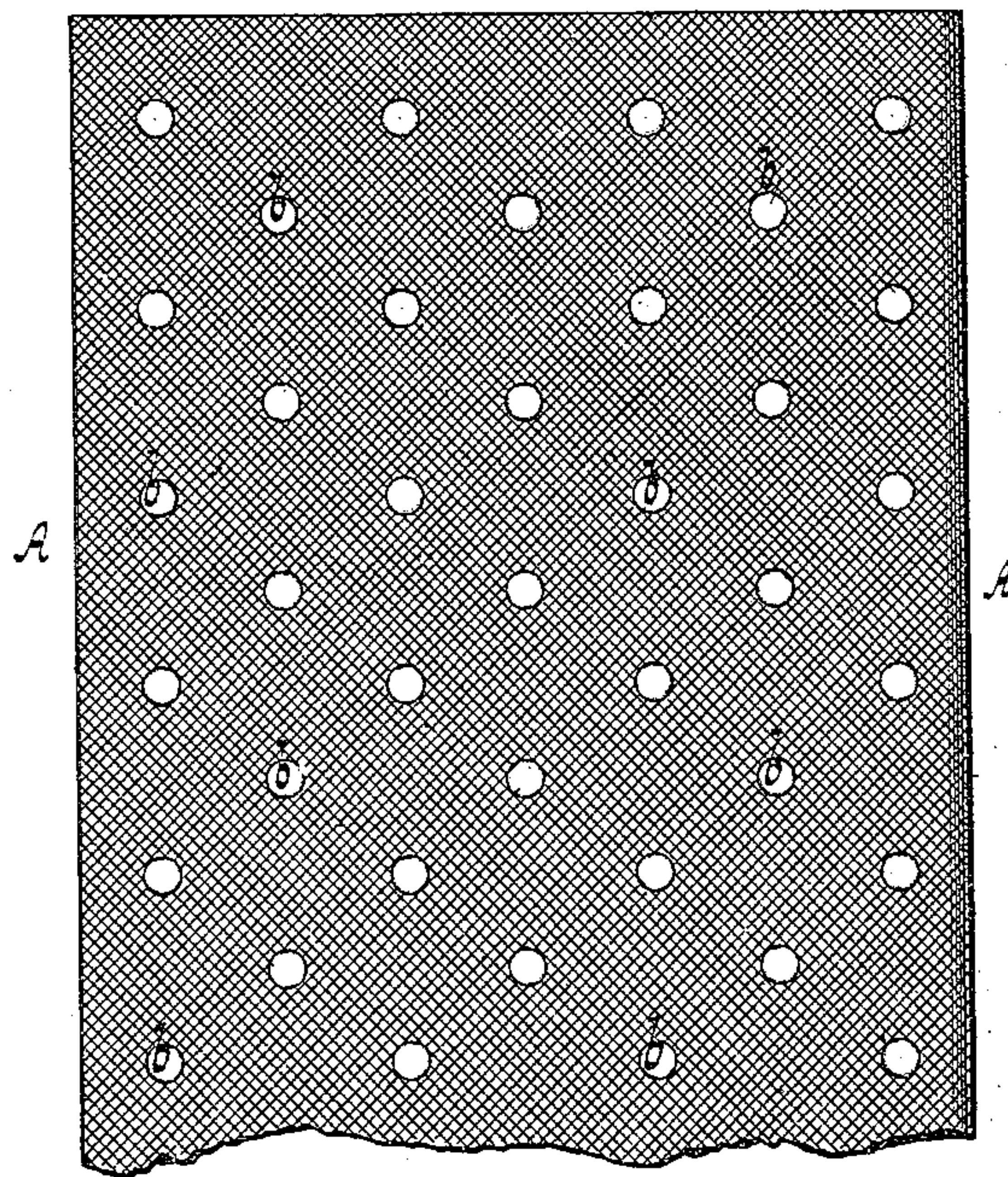
No. 356,022.

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Fig. 1.



Fig. 2.



WITNESSES:

Adrian duFaurol
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INVENTOR

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UNITED STATES PATENT OFFICE.

ABRAHAM D. WESTBROOK, OF TRENTON, NEW JERSEY.

BELTING.

SPECIFICATION forming part of Letters Patent No. 356,022, dated January 11, 1887.

Application filed September 30, 1886. Serial No. 214,972. (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 improvements in belting, such as is used in transmitting power; and it consists in a belt composed of two or more layers or folds of textile fabric united throughout its length by a series of pointed tacks driven through the layers and clinched, all of which is more fully pointed out in the following specification and claim, and illustrated in the accompanying drawings, in which—

Figure 1 represents a transverse section of a belt constructed according to my invention.

Fig. 2 is a plan or face view of a portion of such a belt.

Similar letters indicate corresponding parts.

In the drawings, the letter A designates the body of a belt which is composed of a number of layers of a textile fabric—such as duck—either of a single piece of such material being folded in a proper manner or of several layers placed one upon the other.

In the example here illustrated the belt is composed of four layers of duck, and the material in this case is folded to cause its outer edges to meet in the center, and then both the double portions thus formed are folded onto each other about the said center, thereby forming a four-ply belt. These layers are united by a series of pointed tacks properly distributed and driven through all the layers composing the belt. The projecting points of these tacks are bent over or clinched, as shown in Fig. 2 of the drawings, thereby firmly uniting the layers. That surface of the belt upon which the tacks are clinched is intended to be in contact with the rims of the pulleys when the belt is applied to use.

Heretofore it has been customary to unite the layers of leather or other material composing a belt by means of rivets; but in their use it is necessary to punch or pick out holes for the passage of the shanks, in which operation the threads or fibers from which the fabric is woven are cut through and torn, thereby seriously impairing the strength of the finished belt. The use of pointed tacks for uniting the textile layers avoids not only the ne-

cessity of punching or picking out holes, which operation involves time and expense, but the tacks in penetrating the material push or force the threads or fibers to one side without cutting or tearing them. As a considerable number of tacks are employed in uniting the layers, the belt, in reverse to being injured, is rendered more sound by the lateral compression of the fibers or threads in the fabric.

In addition to impairing the strength of the belt, rivets render the same more liable to slip on the pulleys, owing to the fact that the large heads which must be employed to fasten the shanks form large depressions, whereby a considerable portion of the available frictional surface is removed. If the heads of the rivets come into contact with the pulley the percentage of slip is not decreased, as but a small amount of friction is obtainable between the two metallic surfaces. The numerous large heads also render the belt less pliable, and when rounding smaller pulleys is liable to slip, which reduces the possible power that can be transmitted through the belt. The small portion of the tack which is clinched sinks into the material of the belt and forms but a very small depression, and consequently does not influence the efficiency of the belt. By the use of these clinched tacks I provide a belt which presents all or nearly all of its frictional surface to the pulley, and one which is as pliable and strong as the leather belt usually employed, while its production involves less expense.

I do not claim herein what is claimed in my application for Letters Patent filed June 30, 1886, Serial No. 206,732, Letters Patent on which date October 19, 1886, No. 351,301.

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

A belt composed of two or more layers or folds of textile fabric united throughout its length by a series of pointed tacks driven through the layers and clinched, substantially as shown and 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.