(No Model.)

T. GINGRAS.

BELTING.

No. 385,613. Patented July 3, 1888.

Fig. 1.

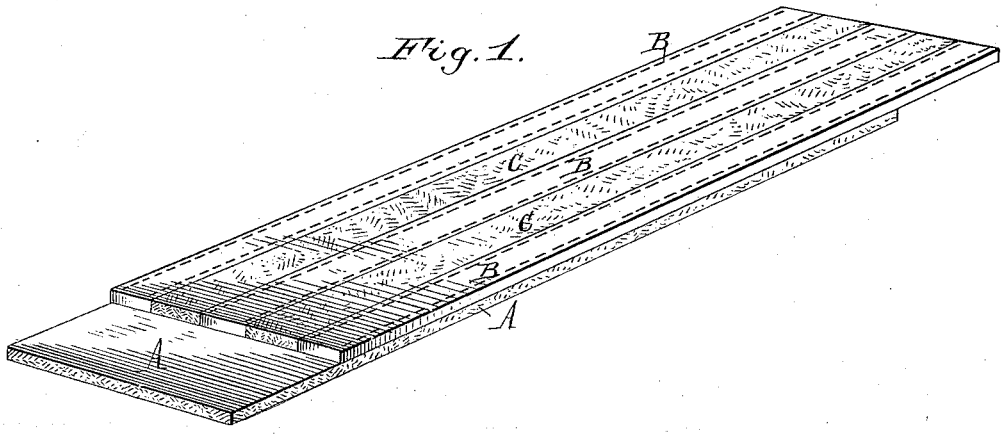


Fig. 2.

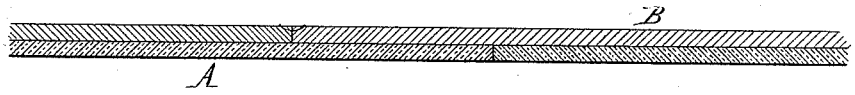
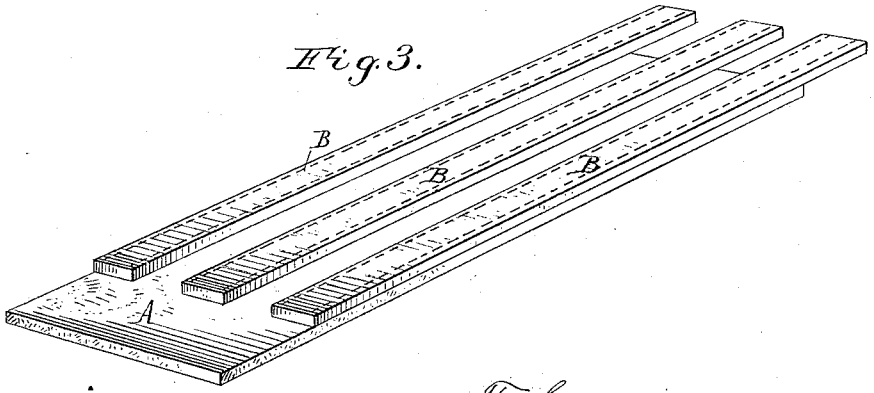


Fig. 3.



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UNITED STATES PATENT OFFICE.

TIMOTHY GINGRAS, OF BUFFALO, NEW YORK.

BELTING.

SPECIFICATION forming part of Letters Patent No. 385,613, dated July 3, 1888.

Application filed October 27, 1887. Serial No. 253,488. (No model.)

To all whom it may concern:

Be it known that I, TIMOTHY GINGRAS, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Belting, of which the following is a specification.

This invention relates to that class of belting in which cotton or other textile fabric is combined with leather.

My invention has the object to construct an improved belting of this kind which will not stretch unequally or shrink, which will permit the use of a large proportion of cotton or other fabric, while at the same time possessing the strength and durability of leather belting, and which can be manufactured at less expense than leather belting.

The invention consists of the improvements which will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a section of my improved belting. Fig. 2 is a longitudinal cross section thereof. Fig. 3 is a perspective view of a modified construction of the belt.

Like letters of reference refer to like parts in the several figures.

The body or main portion of the belt is composed of cotton or other suitable textile fabric, A, which is made of a width corresponding to that of the desired belt.

B represents a series of longitudinal re-enforcing strips of leather, which are secured to the outer side of the belt by stitching, riveting, or other suitable means. I prefer to secure the same by two rows of stitches, as shown. Two of these re-enforcing strips are preferably arranged at the longitudinal edges of the belt, so as to protect the edges thereof from wear by the action of the forks of the belt-shifter. The other strip or strips are located between these marginal strips, one intermediate strip being shown in the belting represented in the drawings. A greater or less number of these intermediate strips is employed, according to the width of the belt.

The re-enforcing strips B prevent to a large extent the cotton or fabric from stretching, and what little stretching does take place in the belt is equally distributed among the several strips, thereby causing all parts of the belt to stretch uniformly and insuring the straight running of the belt at all times. These re-enforcing strips also prevent the fabric from shrinking and causing damage to the machinery, which sometimes occurs when the belt is exposed to a moist atmosphere.

The spaces between the leather strips B are filled by strips of cotton or other fabric, C, whose upper edges stand flush with the adjacent leather strips, as shown in Fig. 1, and which are secured to the body A by stitching, cementing, or otherwise.

When the belt runs around an idler or tightener pulley, and the location of the pulley is such as to require the side of the belt having the strips to run in contact with the pulley, it is found in practice that these filling-strips are desirable, as they enlarge the contact-surface of the belt, and thereby increase its transmitting effect. They also prevent sagging of the belt between the leather strips and the consequent slipping of the belt. If desired, however, these filling-strips may be omitted, as represented in Fig. 3; but I prefer to use the same, as they render the belt more efficient, and the additional expense is comparatively small.

An important advantage of my improved belt is the convenience with which joints can be made in the same. This is accomplished by simply cutting away a portion of the fabric at one end of the belt and on one side thereof, so as to allow the ends of the leather strips to project beyond the fabric, as shown in the upper portion of Figs. 1 and 3, and by cutting away an equal portion of the leather strips at the opposite end of the belt and on the opposite side thereof, as shown in the lower portion of Figs. 1 and 3, so as to let the fabric project beyond the leather strips. The two ends of the belt are then brought together, as shown in Fig. 2, whereby the abutting ends of the leather strips break joint with those of the fabric. The meeting ends of the leather strips are preferably secured together by cross-stitching, and the abutting ends of the fabric are united by cementing. In this manner a smooth and even joint is readily formed, which will sustain as great a strain as the solid portions of the belt. This construction of the belting enables a jobber or large consumer to keep on

hand a whole roll of belting, and to construct an "endless belt" (as smooth-joint belts are known in the trade) without requiring the services of the manufacturer.

My improved combination-belt can be produced at less cost than an ordinary leather belt, as narrow strips of leather can be employed. It has been found by repeated tests that the belt is stronger than a leather belt of the same size.

I am aware that fabric belts have been provided at their longitudinal edges with a strip of leather or other suitable material for receiving the wear of the shifting-fork and preventing the fraying or raveling of the fabric; but this construction permits the belt to stretch unevenly and to sag between the marginal wearing-strips under the lateral pressure of the shifting-fork, thereby bringing portions of the belt out of contact with the face of the pulley and reducing the transmitting-power of the belt.

I do not wish to claim in this application the construction of the joint, which is described and claimed in my pending application, No. 254,148, filed November 3, 1887.

I claim as my invention—

1. The combination, with the body of the belt, composed of cotton or other textile fabric, of marginal strips extending along the longitudinal edges of the belt, and one or more longitudinal leather strips arranged between said marginal strips, substantially as set forth.

2. The combination, with the body of the belt, composed of cotton or other textile fabric, of a series of leather re-enforcing strips extending lengthwise of the belt, and filling-strips of cotton or other textile fabric arranged in the spaces between said re-enforcing strips, substantially as set forth.

Witness my hand this 20th day of October, 1887.

TIMOTHY GINGRAS.

Witnesses:
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