H. M. GRAHAM.

ELEVATOR CANVAS FOR BINDERS, GRAIN CONVEYERS, AND THE LIKE.

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1,435,600. Patented Nov. 14, 1922.

Fig. 1.

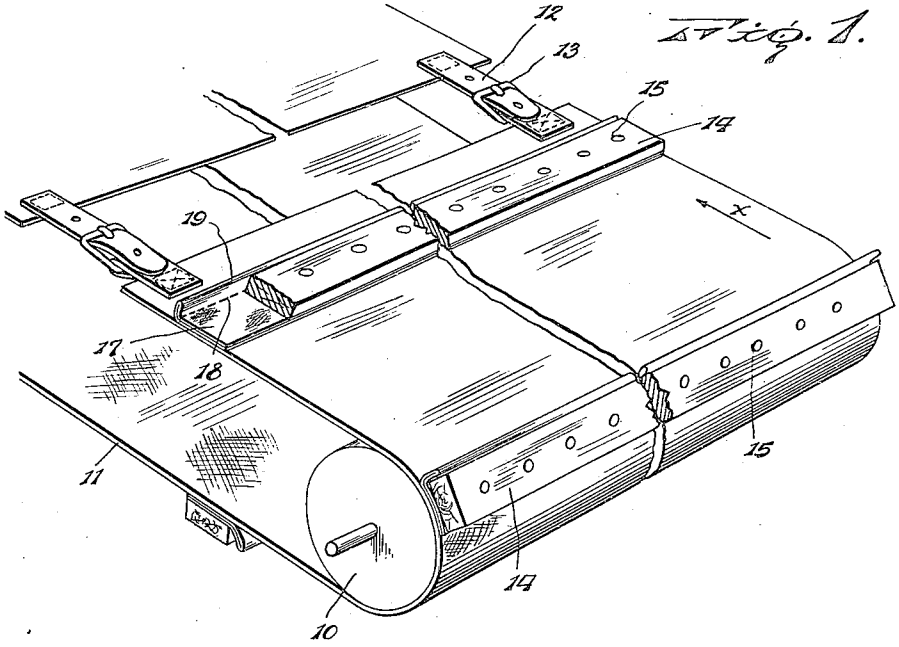
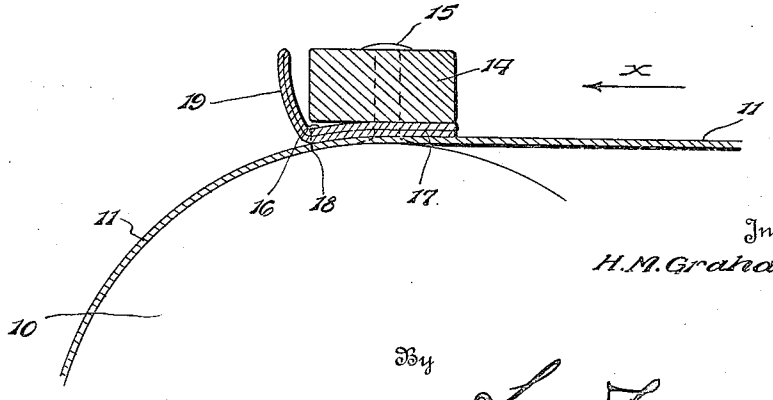


Fig. 2.



Inventor
H. M. Graham.

By Lacey & Lacey, Attorneys

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UNITED STATES PATENT OFFICE.

HARRY MARKER GRAHAM, OF PLATO, SASKATCHEWAN, CANADA.

ELEVATOR CANVAS FOR BINDERS, GRAIN CONVEYERS, AND THE LIKE.

Application filed March 29, 1922. Serial No. 547,846.

To all whom it may concern:

Be it known that I, HARRY M. GRAHAM, citizen of the United States, residing at Plato, Province of Saskatchewan, Dominion of Canada, have invented certain new and useful Improvements in Elevator Canvas for Binders, Grain Conveyers, and the like, of which the following is a specification.

My invention relates to grain conveyers, binders and the like, and has for its object to provide an improved endless belt of canvas, which will convey the grain and straw smoothly without holding back the straw during any part of its travel forward with the belt.

In common with other canvases of this class, transversely running slats are also used for my belt for the purpose of carrying the grain forward. The disadvantage, however, with the ordinary slats resides in the fact that they, being generally made of wood, cannot yield or bend when passing around a roller. On that account, a crack or opening will form along the forward edge of the slat and between the same and the underlying canvas, when passing around a roller. As a consequence, straw is apt to get into this crack at that time and when the canvas is again straightened out, will be pinched and held fast by the slat, and this will interrupt the smooth running of the canvas.

To overcome and entirely eliminate this disadvantage, I provide means to cover up the cracks between the slats and the canvas and from extensive tests, I have found that a binder or conveyer provided with my improved canvas belt, can run without interruption and perform its work in a much better and more efficient manner, than, if provided with the canvas belt of ordinary construction.

In the accompanying drawing, one embodiment of my invention is illustrated and:

Figure 1 represents, in perspective view, a fragment of a canvas stretched over a roller, and

Figure 2 is a cross section, on a larger scale, of the canvas with one slat just passing over the roller.

The reference numeral 10 represents a roller of an ordinary grain binder over which is stretched a canvas 11 held together at its ends by means of straps 12 and buckles 13, permitting necessary adjustment in the length of the canvas. Transversely of the length direction of the canvas is provided a number of slats 14 of wood or any other suitable material, secured on the canvas in any suitable manner as by means of rivets or tacks 15. The slats are spaced apart in the usual manner to form shallow pockets or recesses for the grain and straw to collect in. As best shown in Figure 2, when a slat passes around the roller 10, the forward bottom edge of the slat will stand away slightly from the surface of the canvas and form a crack 16 and in this crack straw is apt to gather, and when the canvas again is straightened out, the crack will close and hold the straw tightly therein. To prevent this, I provide a folded strip of canvas 17 which is inserted between each slat and the canvas belt and held down by the same rivets or tacks 15 as are used for the securing of the slats. At 18 is shown a stitched seam along the forward edge of the slat 14 in order to make sure that no opening will be formed between the canvas belt and the strip of canvas 17 at this point. Beyond this stitching, the strip forms a flap 19, which has about the same width as the thickness of the slat 14. It will now be readily seen, that when the canvas belt travels in the direction of the arrow X, the flap 19 will fold around the front side of the slat 14 and entirely cover up the crack 16 formed between the latter and the canvas belt or in this case, the strip.

In some cases, it might be advisable to provide a flap along each side of the slat, particularly if the belt is reversible.

Having thus described the invention, what is claimed as new is:

1. An endless belt of pliable material, strips of similar material arranged in spaced relation transversely of said belt, and a slat over each strip suitably secured to the strip and the belt, each strip having a loose flap projecting beyond the edge of the slat.

2. An endless belt of pliable material, strips of similar material arranged in spaced relation transversely of said belt, and a slat over each strip suitably secured to the strip and the belt, each strip having a loose flap projecting beyond the edge of the slat, the width of the flap being approximately the same as the thickness of the slat.

3. An endless belt of pliable material, strips of similar material arranged in spaced

relation transversely of said belt, and a slat over each strip suitably secured to the strip and the belt, each strip having a loose flap projecting beyond the edge of the slat, the width of the flap being approximately the same as the thickness of the slat, said strip being secured by means of stitches along the edge of the slat.

4. An endless belt for binder elevators, comprising a length of canvas having strap and buckle connection between its ends, transverse wooden slats secured in spaced relation on the outer side of the belt, and a folded canvas strip inserted between the belt and each slat, the strip being stitched to the belt along the edge of the respective slat, a flap being formed on said strip beyond said edge.

5. An endless belt for binder elevators, comprising a length of canvas having strap and buckle connection between its ends, transverse wooden slats secured in spaced relation on the outer side of the belt, and a folded canvas strip inserted between the belt and each slat, the strip being stitched to the belt along the edge of the respective slat, a flap being formed on said strip beyond said edge, the width of the flap being approximately the same as the thickness of the slat.

In testimony whereof I affix my signature.

HARRY MARKER GRAHAM. [L. S.]