June 28, 1927. 1,634,187

H. HARTVIKSON

PLATFORM CANVAS ADJUSTING MECHANISM FOR GRAIN BINDERS

Filed Oct. 5, 1925

Fig. 1.

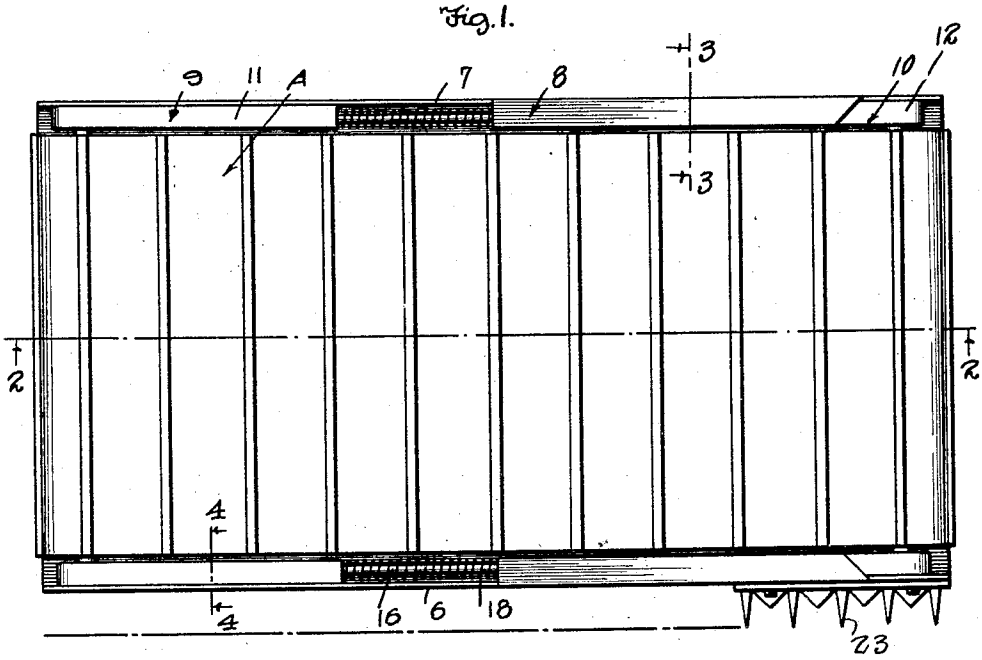


Fig. 2

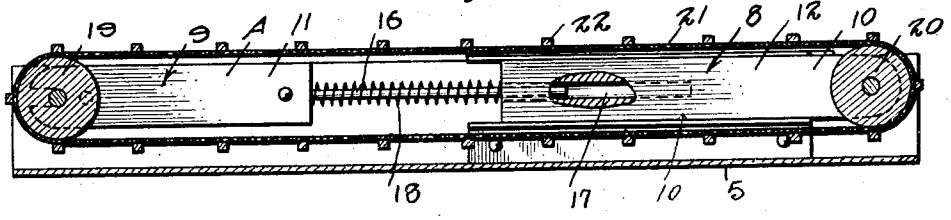


Fig. 3.

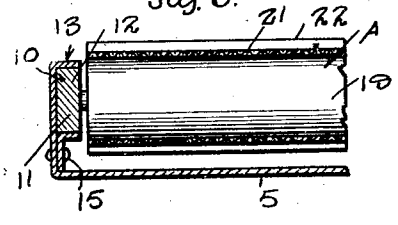
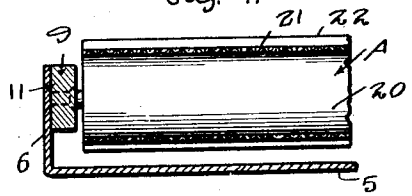


Fig. 4.



Henry Hartvikson,

Inventor

Witnesses
C. E. Churchman

By Richard B. Owen

Attorney

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UNITED STATES PATENT OFFICE.

HENRY HARTVIKSON, OF RUGBY, NORTH DAKOTA.

PLATFORM-CANVAS-ADJUSTING MECHANISM FOR GRAIN BINDERS.

Application filed October 5, 1925. Serial No. 60,626.

This invention appertains to grain binders and more particularly to a platform conveyor thereof.

The primary object of the present invention is to provide a novel conveyor platform for grain binders in which the canvas or belt thereof is normally maintained in a stretched condition and in which the said belt or canvas is permitted to expand and contract due to climatic conditions without detrimental influence on the said belt or canvas and other parts of the binder mechanism.

Another object of the invention is to provide a novel platform conveyor for binders embodying a sectional frame the opposite ends of which carry the rollers over which the canvas or endless belt travels, the sections of the frame being normally maintained in an extended position relative to one another by the use of suitable expansion springs, which as stated allows the expansion and contraction of the belt or canvas.

A still further object of the invention is to provide a platform conveyor for binders of the above character, which will be durable and efficient in use, one that will be simple and easy to manufacture and one which can be placed upon the market and incorporated with a conventional binder at a small cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described, claimed and illustrated in the accompanying drawings, in which drawings:

Figure 1 is a top plan view of the improved platform conveyor, parts thereof being shown broken away,

Figure 2 is a central longitudinal section through the same taken on the line 2—2 of Figure 1,

Figure 3 is a detail fragmentary transverse section taken on the line 3—3 of Figure 4 looking in the direction of the arrows, and

Figure 4 is a detail fragmentary section taken on the line 4—4 of Figure 1 looking in the direction of the arrows.

Referring to the drawings in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates the improved platform conveyor for a conventional binder which embodies the usual pan 5 which extends entirely under the said conveyor. This pan 5 can be made of sheet metal if preferred and the opposite longitudinal edges of the pan 5 are upturned to provide flanges 6 and 7 for a purpose, which will be hereinafter more fully described.

Mounted within the pan 5 is a novel sectional frame 8 which includes an inner section 9 and an outer section 10. The inner section 9 includes longitudinally extending side bars 11 which are rigidly secured in any preferred way to the upstanding flanges 6 and 7 at one end of the pan. It is preferred to bolt the said beams 11 directly to the flanges. The section 10 also embodies longitudinally extending side beams 12 which are of a relatively great length and these beams 12 are disposed in spaced relation to the beams 11 and are slidably mounted in suitable guides 13 formed on the flanges 6 and 7 adjacent to the outer end thereof. These guides 13 are of a U-shape and can be formed in any desired way such as by turning the upper edges of the flanges 6 and 7 inwardly at right angles as at 14 and bolting an angle bar 15 to the said flanges adjacent to the lower ends thereof. In accordance with this invention the beams 11 have secured thereto in any desired way the inwardly extending guide rods 16 which are slidably fitted within guide sockets or bores 17 formed in the inner ends of the side beams 12. Expansion springs 18 are coiled about the said guide rods 16 and have the terminals thereof engaging the inner ends of the said beams 11 and 12 and thus normally urge the beams in opposite directions. The ends of the beams 11 which are remote from the ends carrying the guide rods 16 are provided with suitable bearings for a roller 19, while the outer ends of the beams 12 are provided with bearings for a roller 20. The endless belt or canvas 21 is trained about the said rollers 19 and 20 with the usual flights 21 which can be secured to the said belt or canvas. The usual cutter bar 23 can be secured to the front flange 7 of the bed in any desired manner.

From the foregoing description, it can be seen that the rollers 19 and 20 will be normally urged in opposite directions thus creating a continuous tension upon the canvas or belt 21. The springs 18 will permit the expansion and contraction of the said

belt or canvas due to climatic conditions without injury to the belt or other parts of the binder. This will eliminate the difficulty which is usually contingent with the conventional binder.

Changes in details may be made without departing from the spirit or scope of this invention, but:

What I claim as new is:

1. A conveyor of the character described comprising a pan, a sectional frame arranged within the pan including rigid side beams disposed at one end of the pan and slidable side beams disposed at the opposite end of the pan, guides carried by the pan for receiving the slidable side beams, rollers carried by the outer ends of the rigid and slidable side beams, an endless belt trained about said rollers, guide sockets formed in the inner ends of the slidable side beams, guide rods carried by the inner ends of the rigid side beams slidably received in said sockets, and expansion springs coiled about said guide rods engaging the inner ends of the rigid and slidable side beams.

2. A conveyor of the character described comprising a pan, upturned longitudinally extending flanges formed on the longitudinal edges of the said pan, a sectional frame disposed within the pan including an inner and an outer section, the inner section including rigid side beams secured to the said flanges of the pan at one end thereof, the other section including slidable side beams, guides carried by the flanges of the pan receiving the said slidable side beams, rollers carried by the outer ends of the rigid and slidable side beams, an endless belt trained about said rollers, and spring means disposed between said sections of the frame for normally urging the rollers in opposite directions.

In testimony whereof I affix my signature.

HENRY HARTVIKSON.