Aug. 6, 1929. C. KOOPMAN 1,723,357

DRAPER

Filed July 19, 1927

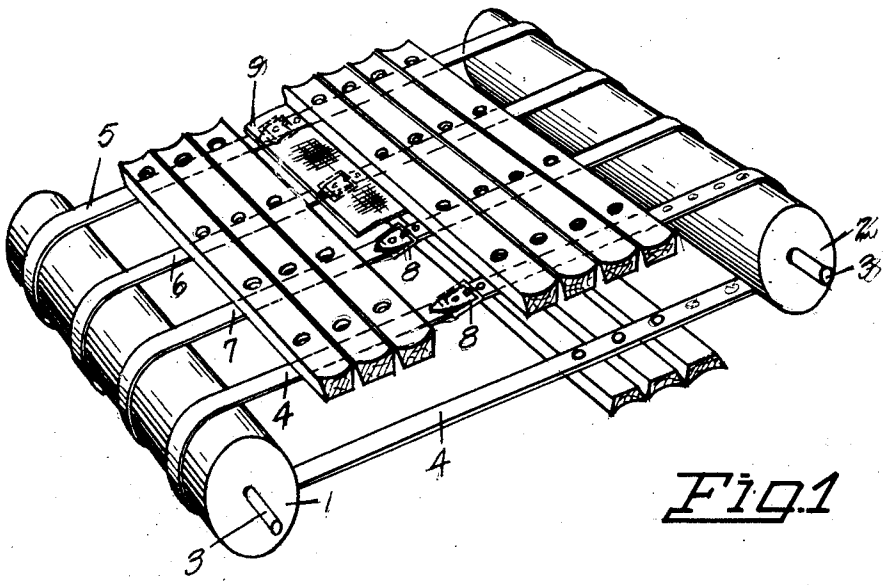


Fig. 1

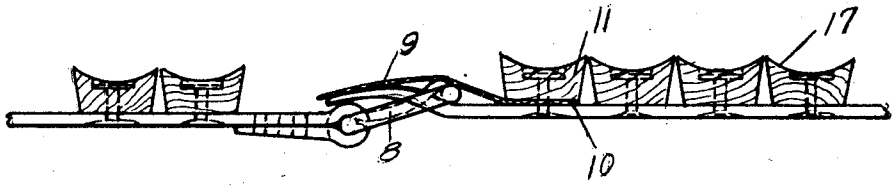


Fig. 2

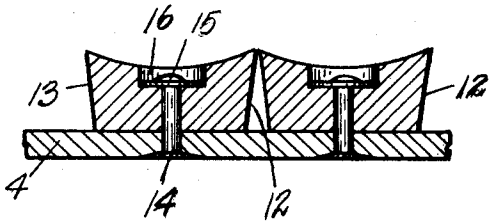


Fig. 3

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Patented Aug. 6, 1929. 1,723,357

UNITED STATES PATENT OFFICE.

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DRAPER.

Application filed July 19, 1927. Serial No. 206,868.

My present invention relates to an improved draper or endless carrier, also known as an endless apron or conveyor for use in harvesting and other farming machinery. As is well known to those familiar with this type of machinery, most of the drapers now in use on harvesting machines employ belts that are subject to wear and quickly become useless under the strains and friction imposed thereon during the operation of the machinery. The primary object of my invention is the provision of a draper in which worn parts may be replaced and repairs made in order that the draper, as a whole, may be made more durable and lasting, thus decreasing the cost of replacing the worn drapers. Means are provided for facilitating the adjustment of the belt to take up slack therein, due to friction and wear, and the slats or cleats used as the carriers on the draper are fashioned in such manner as to enhance their carrying capacity, thus increasing the efficiency of the draper.

The invention consists in certain novel combinations and arrangements of parts as will hereinafter be more fully pointed out and claimed.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention wherein the parts are combined and arranged according to the best mode I have thus far devised for the practical application of the principles of my invention.

Figure 1 is a perspective view of a draper or endless carrier constructed according to my invention, with parts omitted for convenience of illustration.

Figure 2 is an enlarged detail edge view of a part of the upper flight of the draper.

Figure 3 is a detail sectional view showing the manner of attaching the slats to the belts or straps.

In carrying out my invention the usual rolls 1 and 2 are employed and provided with the shafts 3, one of which is used for driving the draper, through its roll.

The apron or carrier includes a number of straps or narrow belts as the edge straps 4 and 5 and intermediate straps 6 and 7. These straps may be made up of leather, canvas, or other suitable flexible material, and the number of spaced straps may be varied with the length of the rolls. The ends of the straps are joined by any suitable type of buckle as 8, and this plurality or series of straps forms the supporting belt of the draper. The buckles or joined ends of the straps are alined transversely of the draper and the buckles are covered by means of a transversely extending flap 9 which may be made of leather, canvas or other material that will lie snugly over the buckles and form a shield to prevent grain falling through the draper at this point.

One edge of the flap, as 10, is secured between the several straps and one of the slats as 11, as best seen in Figure 2, said slats being fashioned, preferably from wood and provided with oppositely tapering edges 12 and 13. The slats are disposed transversely of the draper and they are secured to each strap by means of a rivet 14 that is passed through the strap and slat, and the head 15 of the rivet is located in a countersunk recess 16 of the slat. The narrower face of each slat is attached to the straps, and the wider faces or outer faces of the slats touch at their opposite edges, as seen in Figures 2 and 3 to permit flexible movement of the draper about the rolls and to prevent grains from falling between the slats of the carrier.

On their outer faces the slats are concaved, as at 17, and these concavities form longitudinally extending, shallow, troughs, the troughs of course extending transversely of the draper. The slats or cleats as thus fashioned have an increased carrying capacity over a slat having a flat carrying face, and the slats, due to their concave carrying faces, prevent the grain falling off the draper.

It will be apparent that the slats, when worn, may readily be replaced with new ones at slight cost, the buckles and straps may also be repaired or replaced with facility when required, and the draper may be maintained in its required taut condition by taking up the slack from time to time by tightening the buckles.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

A draper comprising a pair of spaced rolls and a plurality of spaced straps having jointed ends and means for covering said ends, transversely disposed wooden slats and rivets securing said slats to the straps, said slats having exterior, concave, longitudinally extending carrier faces and tapered sides forming frictionally engaging edges at the carrier faces, whereby a continuous carrier face is provided for the draper.

In testimony whereof I affix my signature.

CHARLES KOOPMAN.