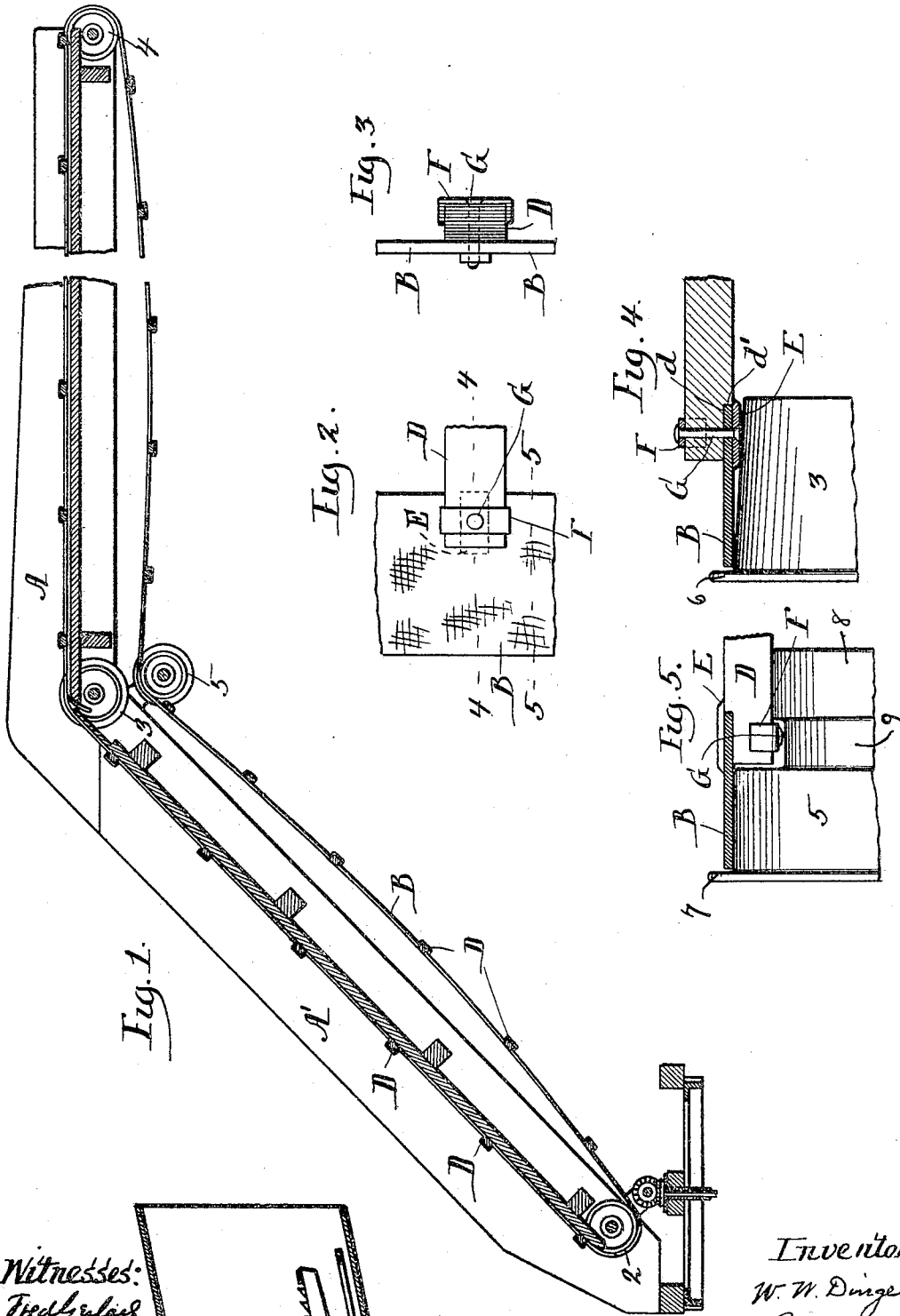


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PATENTED DEC. 19, 1905.

W. W. DINGEE.
STRAW CARRIER.

APPLICATION FILED MAY 14, 1904.



Witnesses:
Fred J. Laue
Alberta Adamich

Inventor:
W. W. Dingee
By *Paul T. Fisher*
his Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM W. DINGEE, OF RACINE, WISCONSIN, ASSIGNOR TO J. I. CASE
THRESHING MACHINE COMPANY, OF RACINE, WISCONSIN, A CORPO-
RATION.

STRAW-CARRIER.

No. 808,024.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM W. DINGEE, a citizen of the United States, and a resident of the city and county of Racine, in the State of Wisconsin, have invented certain new and useful Improvements in Straw-Carriers, of which the following is a full, clear, and exact description.

Figure 1 is a view in vertical longitudinal section through the discharge-trunk of a straw-stacker having a carrier embodying my invention. Fig. 2 is an enlarged detail plan view showing part of one of the raddle-belts and the end portion of a slat fixed thereto. Fig. 3 is a view in side elevation of the parts shown in Fig. 2. Fig. 4 is a view in section on line 4 4 of Fig. 2, showing the belt passing over the upper intermediate pulley. Fig. 5 is a view in section on line 5 5 of Fig. 2, showing the belt passing over the lower intermediate pulley.

The present invention has for its object to provide an improved construction of straw-carrier or raddle of such character that it can be run at any desired angle incident to the position of the stacker-frame.

A serious objection encountered in the use of straw-carriers or raddles in stacker-frames of such construction that the raddle must pass around a corner is that the speedy cutting or wearing away of the belts, particularly at the points adjacent the ends of the slats, is apt to occur, thereby rendering the raddle short-lived and expensive. The desideratum has been to afford a straw-carrier that was adapted to pass around the pulleys and idler-pulleys of a stacker-frame at any desired angle without excessive strain or wear upon the belt.

My present invention provides a straw-carrier or raddle the belts of which have pulley-bearing portions that extend beyond or outside the fastening devices that connect the belts to the cross-slats, such fastenings being attached to the inner edge portions of the belts. The result is that the belts travel with all the uniformity of ordinary belting, and the danger of the wear or cutting of the belts adjacent the ends of the cross-slats is reduced to a minimum.

A further advantage incident to the present invention is that the cross-slats are connected to the side belts in such manner that the parts have little chance to shift with respect to each

other, and hence the wear of the belt adjacent the ends of the slat is avoided.

The invention consists in the features of improvement hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the claims at the end of this specification.

A and A' designate the upper and lower sections of the stacker-frame that are adjustably connected, as usual, at an angle to each other. Suitably mounted upon the stacker-frame are the pulleys 2, 3, 4, and 5, around which will pass the raddle or straw-carrier embodying my invention. The pulleys 2 and 4 will be mounted upon shafts at the opposite ends of the stacker-frame. The pulley 3 will be mounted at the angle of the sections A and A', and the idler-pulley 5 will be mounted beneath the stacker-frame at the juncture of its sections A and A'. It will be understood, of course, that while only one set of pulleys is illustrated in the drawings there will be one set of each pulleys for each of the side belts of the raddle.

As shown, the carrier or raddle comprises the side belts B, adapted to pass around the pulleys, the belts being connected by cross-slats D. These cross-slats are secured to the inner edge portions of the belts by fastening devices so arranged that each belt has a pulley-bearing portion which extends outside of the ends of the slats and outside of the ends of the fastening devices. By reference to Figs. 2 and 4 it will be seen that the cross-slats, as well as the fastenings whereby they are connected to the belts, overlap the inner portions of the belts to a slight extent, leaving a large pulley-engaging portion outside of the ends of the slats and fastening devices. The result is that the belts B have an even bearing upon the pulleys, and the movement of the belts over the pulleys is much more uniform than would be possible if the slats or fastenings extended over the entire bearing-faces of the pulleys. By this arrangement the belts will not be strained against the edges of the fastening devices as they pass over the pulleys so as to be cut or worn, thus reducing the wear of the belts and correspondingly prolonging the life of the raddles. By reference to Fig. 5 it will be seen that the cross-slats D, as well as the fastening devices, lie entirely between the idler-pulleys 5 at the op-

posite sides of the raddle, because the inner portions of the belt to which the slats are connected project beyond the belt-bearing face of the idler-pulleys. By this arrangement the slats D and fastening devices clear the edges of the inner pulleys, and the fastenings of the slats are also outside of the belt-bearing portion of the pulleys, so that the belt is not bent around the fastening devices as it passes over the pulley. In the preferred form of my invention the cross-slats are attached to the belts in the manner next to be described.

Each cross-slat D has its end formed with a cut-away space d , into which the inwardly-projecting portion of a corresponding belt B will be placed, and when thus placed the inner edge of the belt will bear against the shoulder d' of the cut-away space d . The end of each slat D will be secured to the adjacent belt, preferably by means of the fastening devices shown—that is to say, a thin metal plate E bears against the inner face of the belt B at the end of the slat and preferably a U-shaped metal clip F sets over the upper face of the end of each slat D, these plates E and F being held in position by a rivet G, that passes through the plates E and F and as well also through the end of the slat D and through the belt B. When the slats D are joined to the belts B, as thus described, the abutting of the inner edge of the belt B against the shoulder d' of the slat will serve to prevent any lateral movement of the slat with respect to the belt. The plate E will securely hold the edge of the belt within the cut-away space of the slat, and inasmuch as this plate E preferably extends beyond the cut-away space d of the slat and onto the inner face of the slat (see Fig. 4) it serves not only to cooperate with the rivet G and rigidly hold the belt and slat together, but it also materially aids in preventing any splitting or cracking of the shoulder d' of the slat. The U-shaped clip or plate F by extending downward over the sides of the slat effectively serves to prevent the splitting of the slat, while serving also as a bearing for the upper head of the rivet G. Pulleys 3 and 4 extend the full width of the belt, as shown in Fig. 4; but the metal plates E are quite thin and narrow, and the end of the rivet G is countersunk therein, as shown, so that there is little or no obstruction to the passage of the belt over the pulley. If desired, these pulleys may only be of sufficient width to engage the outer portion of the belt which projects beyond the slat and fastening devices. These pulleys are preferably somewhat conical, as indicated in Fig. 4, and provided upon their outer faces with a guide-flange 6.

The inner pulleys 5, over which the opposite faces of the belts B pass, are provided with a belt-bearing portion of a width only equal to that of the outer portion of the belts B which project beyond the ends of the slats

D. These pulleys are also preferably provided with a guide-flange 7 and with an inwardly-extending portion 8 of smaller diameter than the belt-bearing portion, but of sufficient size to properly engage and support the ends of the slats D, as shown. The reduced portions 8 of pulleys 5 are also provided with an annular recess 9, so that the U-shaped plate F and the head of the rivet G will entirely clear the pulley, as shown.

It is obvious that the precise details of construction above set out may be varied without departure from the spirit of the invention.

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

1. In a straw-carrier, the combination with the supporting-pulleys, of belts having slat-attaching portions and having pulley-bearing portions extending beyond the slat-attaching portions of the belts, cross-slats and fastenings connecting the ends of said cross-slats to the slat-attaching portions of said belts.

2. A raddle consisting of carrier-belts each having a plane unobstructed pulley-bearing portion comprising the greater part of its width, cross-slats connecting said belts, and fastenings uniting the ends of said cross-slats to the inner portions of the belts.

3. A raddle comprising carrier-belts, connecting cross-slats overlapping the inner portions only of said belts and having cut-away spaces at their ends, within which spaces the edges of the belts set, and suitable fastenings for holding the belts within the cut-away spaces of the slats.

4. A raddle comprising carrier-belts, cross-slats for connecting said belts having cut-away spaces at their ends, within which spaces the edges of the belts set, rivets or bolts passing through the ends of the slats and through those portions of the belts within the cut-away spaces of the slats, and plates upon the inner faces of the belts through which said rivets or bolts also pass.

5. A raddle comprising carrier-belts, cross-slats for connecting said belts having cut-away spaces at their ends, within which spaces the edges of the belts set, and means for holding said slats in position upon the belts comprising metal plates on the inner faces of the belts, U-shaped metal plates upon the outer faces of the slats and rivets or through-bolts connecting said several parts.

6. A raddle comprising side belts and connecting cross-slats, the under face of said slats being cut away at the ends to form shoulders, said belts setting within said cut-away portions and having their edges abutting against said shoulders and said belts having pulley-bearing portions extending beyond the ends of said slats and rivets extending through said belts and the ends of said slats.

7. A raddle comprising side belts and cross-slats overlapping the inner edge portions only

of said belts, the under faces of said slats being cut away at the ends to form shoulders against which the edges of said belts abut, metal plates engaging the faces of said belts and said shoulders and rivets extending through said plates, belts and the end of said slats.

8. A raddle comprising side belts and connecting cross-slats overlapping the inner edge portions of said side belts, metal U-plates extending over the ends of said slats and rivets extending through said U-plates, the ends of said slats and said belts.

9. In a straw-carrier, the combination with the carrier-sections adjustably connected and arranged to extend at an angle to each other, supporting-pulleys at the ends of said sections, upper and lower idler guide-pulleys at the joint between said sections, a raddle extending over said pulleys and comprising side belts and connecting cross-slats fastened to said belts, said belts having pulley-bearing portions extending beyond the ends of said slats and outside of the fastening devices therefor.

10. In a straw-carrier, the combination with the carrier-sections adjustably connected and arranged to extend at an angle to each other, supporting-pulleys at the ends of said sec-

tions, upper and lower idler guide-pulleys at the joint between said sections, a raddle extending over said pulleys and comprising side belts and connecting cross-slats fastened to said belts, said belts having pulley-bearing portions extending beyond the ends of said slats and outside of the fastening devices therefor, and said under idler-pulley having a belt-bearing portion located entirely outside of the ends of said slats.

11. In a straw-carrier, the combination with the carrier-sections adjustably connected and arranged to extend at an angle to each other, supporting-pulleys at the ends of said sections, upper and lower idler guide-pulleys at the joint between said sections, a raddle extending over said pulleys and comprising side belts and connecting cross-slats fastened to said belts, said belts having pulley-bearing portions extending beyond the ends of said slats and outside of the fastening devices therefor, and said under idler-pulley having a belt-bearing portion located entirely outside of the ends of said slats, and also having a reduced portion for engaging said slats.

WILLIAM W. DINGEE.

Witnesses:

FREDERICK LEE NORTON,
JAMES H. PEIRCE.