

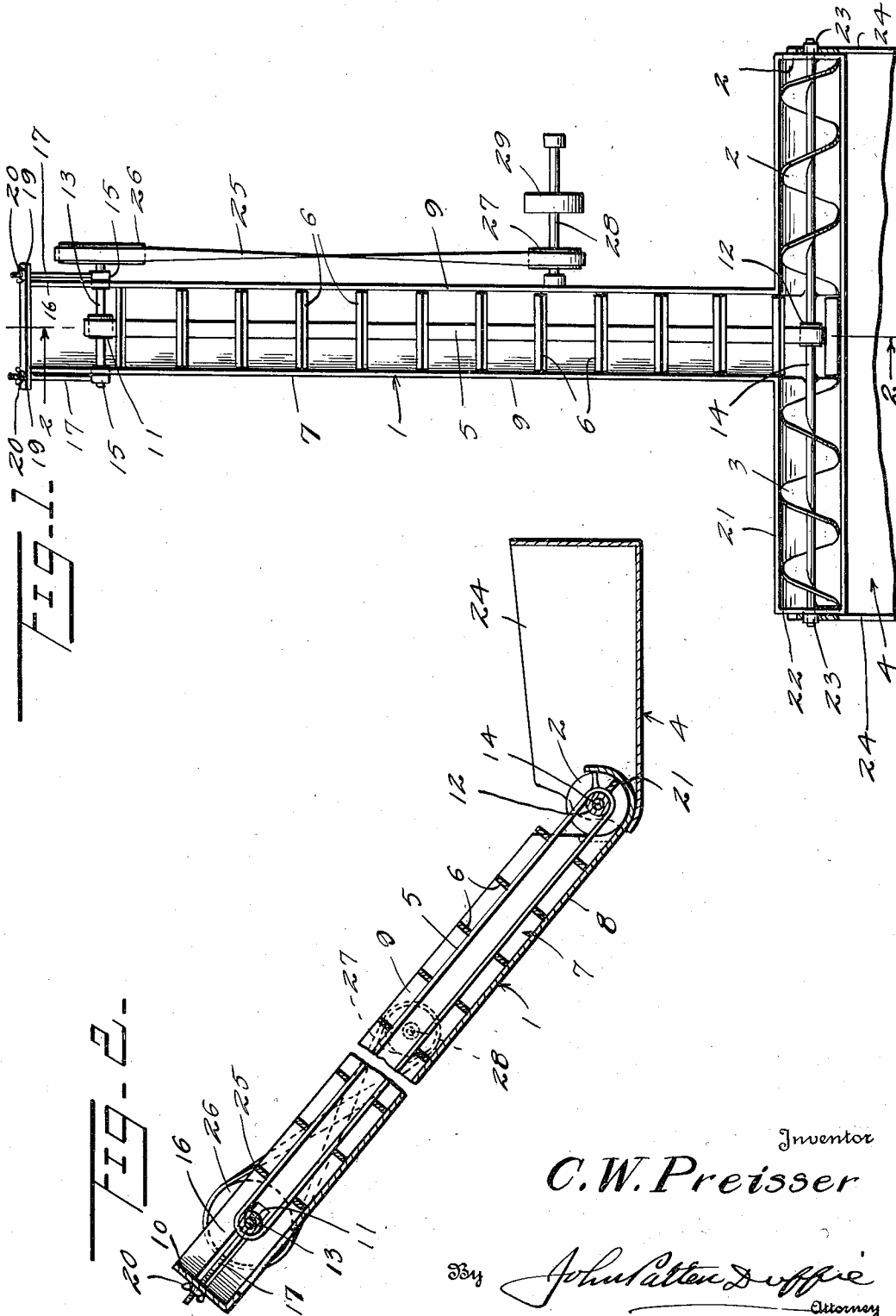
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GRAIN ELEVATOR

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GRAIN ELEVATOR

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1 Claim. (Cl. 198—104)

This invention relates to new and useful improvements in grain elevators.

The primary object of my invention is to provide an improved and novel construction of grain elevator, especially adapted for loading small grain from the floor or ground into a truck, or for unloading the grain from a truck and conveying it to a suitable receptacle.

With the foregoing and other objects in view that will appear as the nature of my invention is better understood the same consists in the novel features of construction, combination and arrangement of parts illustrated in the accompanying drawing and more particularly pointed out in the appended claim.

In the accompanying drawing, which is for illustrative purposes only and is, therefore, not drawn to scale:

Figure 1 is a front elevation of a grain elevator, embodying my improvements and Figure 2 is a vertical longitudinal section taken on line 2—2 of Figure 1.

Referring to the drawing for a more particular description of my invention and in which drawing like parts are designated by like reference characters throughout the several views, my device essentially comprises the upwardly inclined carrier 1, right and left hand spiral conveyors 2 and 3, respectively, and the ground or floor box 4. The carrier 1 consists of the endless belt 5, equipped with the cross bars or strips 6, and said carrier works in the casing 7, composed of the flat bottom 8, flat side walls 9 and top wall 10. The endless belt 5 travels over the pulleys 11 and 12, carried by the upper and lower transverse shafts 13 and 14, respectively. The ends of the upper shaft 13 are journaled in suitable bearings 15, adjustably mounted in the longitudinally slotted upper end portions 16 of the bearings 15 and are provided with rods 17, whose upper lateral ears or extensions 19, are formed at the opposite ends of the top wall 10 of the casing and are provided with nuts 20 to facilitate the adjustment of said bearings.

The shaft 14 is provided with the right and left hand spiral conveyors 2 and 3, which work in the

hollow trough or casing 21, formed at the lower end of the carrier frame. The ends of the shaft 14 extend through the end walls 22 of the trough or casing 21 and are journaled in suitable bearings 23, formed at the inner ends of the side walls 24 of the substantially rectangular ground or floor box 4. The carrier 1 is driven by the endless belt 25, which works over a pulley 26, carried by one end of the shaft 13 exteriorly of the carrier casing and a second smaller pulley 27, carried by the inner end of the horizontal shaft 28, journaled to the adjacent side wall of said casing. The horizontal shaft 28 is provided at its outer end with a second pulley 29, whereby the former may be driven from a suitable source of power.

The adjustability of the shaft 13 provides a means for obtaining the desired tension of the carrier 1 and belt 25.

My grain elevator is especially adapted for loading small grain from the floor or ground into a truck or for unloading the grain from a truck and conveying it to a suitable receptacle. In unloading the grain from a truck, it is run into the box 4, which may be adjusted to any desired angle.

From the foregoing description, taken in connection with the drawing, it is thought that the construction, operation and advantages of my invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportions and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of my invention, as defined in the appended claim.

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

A grain elevator comprising an upwardly inclined carrier, a casing for said carrier, said casing formed at its lower end with a hollow integral trough, means for driving said carrier, a spiral conveyor working in said trough and driven by said carrier and a floor box formed at its ends with bearings for the ends of the conveyor shaft, said box adapted to be adjusted to any desired angle.

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