Feb. 15, 1955 H. BOBROWSKI 2,702,113

EXTENDIBLE SUPPORT FOR GRAIN AUGERS

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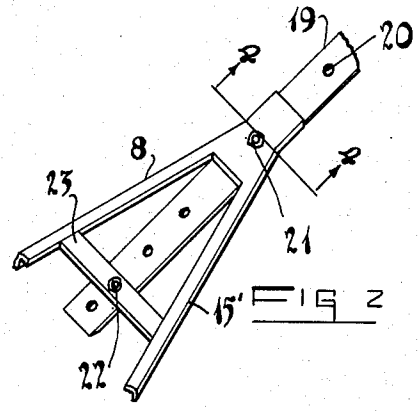


FIG 2

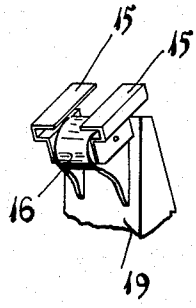
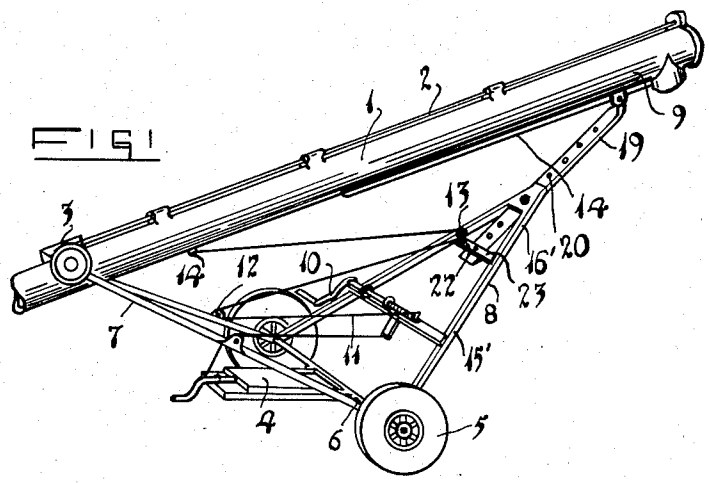


FIG 3

FIG 1



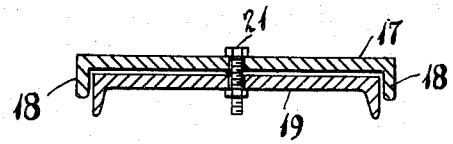


FIG 4

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EXTENDIBLE SUPPORT FOR GRAIN AUGERS

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1 Claim. (Cl. 198—121)

My invention relates to new and useful improvements in grain augers, and in particular to the supporting member extending between the wheels and the auger tube, an object of my invention being to provide a device of the character herewithin described wherein this supporting member is adjustable as to length thereby widening the scope of the angle of inclination of the auger considerably.

A further object of my invention is to provide a device of the character herewithin described in which said adjustment is simple to undertake and which furthermore provides rigid support at the junction of the two components at all times.

Another object of my invention is to provide a device of the character herewithin described which is simple in construction, and otherwise well suited for the purpose for which it is designed.

With the foregoing objects in view, and such other objects and advantages as will become apparent to those skilled in the art to which this invention relates as this specification proceeds, my invention consists essentially in the arrangement and construction of parts all as hereinafter more particularly described, reference being had to the accompanying drawings in which:

Figure 1 is a perspective view of my device.

Figure 2 is an enlarged perspective view of the junction between the two components of the adjustable supporting member.

Figure 3 is an enlarged perspective view showing the attachment of the supporting member to the grain auger tube.

Figure 4 is an enlarged transverse section taken through the line 4—4 of the Figure 2.

In the drawings like characters of reference indicate corresponding parts in the different figures.

The range of the angle of inclination of a conventional grain auger is relatively limited and in order to extend this range it is necessary to increase the length of track and the length of the supporting components. However, this is not always convenient particularly with certain type of grain augers which are designed to lower to the extent necessary in order that they may be towed behind vehicles.

In other words, the average conventional grain auger is a compromise between towing facilities and high angle of elevation.

My invention overcomes these disadvantages by providing a supporting member which is adjustable as to length thereby increasing materially the range of the angle through which the auger may be elevated.

Proceeding now to describe my invention in detail, it will be seen upon reference to the accompanying drawings that I have illustrated a grain auger comprising an auger tube 1 having an auger flight (not illustrated) therewithin driven by drive shaft 2 from a gear box 3 which in turn is driven from a source of power (not illustrated) supported upon motor platform 4. The auger tube is supported upon a pair of wheels 5 carried upon an axle beam 6, a pair of braces 7 extending from the beam to the gear box 3 and a further supporting member collectively designated 8 extending from the beam to the upper end 9 of the tube thus forming a triangle consisting of the tube, the members 7, and the member 8. Means are

provided to alter the relative angle between the members 7 and 8 and consist of a winch 10 mounted on member 8, said winch actuating a cable 11 passing over sheaves 12 and 13 and thence to a fixed point 14 upon the underside of the tube 1 so that rotation of the crank will cause the angle to vary and, in conjunction with means hereinafter to be described, permit the upper end of the member 8 to slide down the tube.

This means takes the form of a track 14 secured to the underside of the tube, said track being slidably engagable within claws 15 secured upon the upper end of member 8 together with a roller 16 journalled between the claws and upon which the track rests.

From the foregoing, it will be appreciated that the angle of inclination of the tube 1 with the horizontal may be varied by rotation of the crank causing the track to slide within the claws 15.

The member 8 is made adjustable in length in order to increase the range of operation of the device and in order to obtain this adjustment, it will be seen that the member 8 consists of a lower component in the form of an A frame 15', the lower ends of which are secured to the beam 6. The apex 16' of the A frame is formed from a relatively short length of flattened channel material 17, the side flanges 18 of which act as bearing supports for the upper tongue component 19 of the member 8. This tongue component (upon the outer end of which the claws 15 are secured) also consists of a relatively flat channel member which nests between the flanges 18 of the portion 17, said tongue being apertured along the length thereof as indicated by the reference character 20.

A bolt and nut assembly 21 extends through an aperture in the channel 16' and through any one of the apertures 20 within the tongue thus locating the A frame 15' in relation to the tongue 19 as desired. This securing of the two components together, is reinforced by the provision of a further nut and bolt assembly 22 which passes through a brace 23 spanning the A frame adjacent the apex thereof and through the aperture in the tongue immediately therebelow.

From the foregoing, it will be appreciated that the effective length of the component 8 may be varied within limit readily and easily as desired.

Since various modifications can be made in my invention as hereinabove described, and many apparently widely different embodiments of same made within the spirit and scope of the claim without departing from such spirit and scope, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense.

What I claim as my invention is:

In a wheel mounted grain auger including an auger tube, an auger flight therewithin, and a transverse axle beam, a supporting member extending between one end of said tube and said axle beam, and means to adjust the length of said supporting member, said supporting member including a lower A frame component secured at the lower ends thereof to said axle beam, and an upper tongue component adjustably attached at one end to adjacent the apex of said A frame and at the other end, to the upper end of said auger tube, the apex of said A frame consisting of a flattened channel, said tongue also being formed of a flattened channel, the channel forming said apex overlapping said tongue and acting as a bearing therefor, bolt means extending through said apex and said tongue and further bolt means extending through said tongue and a brace spanning said A frame adjacent the apex thereof.

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