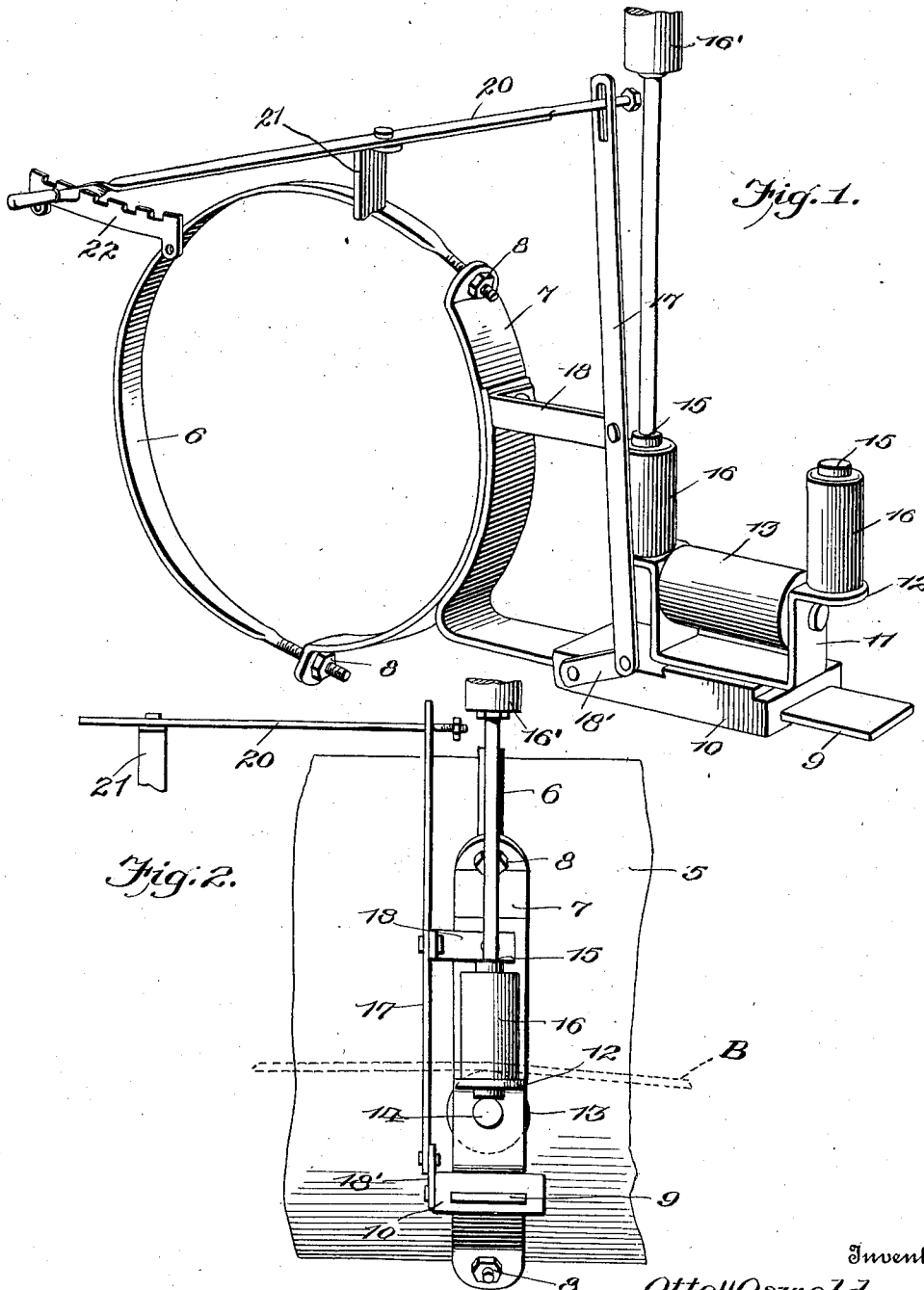


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BELT GUIDE AND THROWER.
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1,058,895.

Patented Apr. 15, 1913.



Witnesses

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BELT GUIDE AND THROWER.

1,058,895.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OTTO H. OSWALD, a citizen of the United States, residing at Comanche, in the county of Yellowstone and State of Montana, have invented certain new and useful Improvements in Belt Guides and Throwers, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in belt guides and throwing devices and has for its primary object to provide a simple and efficient device of this character and means for attaching the same to the boiler of a traction engine, whereby the belt for operating a thresher or other machine which is driven by the engine may be easily and quickly thrown off of the drive wheel without twisting or otherwise injuring the same.

15 20 Another and more specific object of the invention resides in the provision of a supporting bar and improved means for slidably mounting the belt guide thereon and shifting the same longitudinally to throw the belt off of the drive wheel.

25 Still another object of the invention is to provide a device of the above character which consists of comparatively few parts of strong and durable construction, is reliable in operation and may be manufactured at comparatively small cost.

30 With the above and other objects in view as will become apparent as the description proceeds the invention consists in certain constructions, combinations and arrangements of the parts that I shall hereinafter fully describe and claim.

35 For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which—

40 Figure 1 is a perspective view of my improved belt guide and thrower; Fig. 2 is an end elevation showing the device mounted upon an engine boiler.

45 Referring in detail to the drawing 5 designates the boiler of a traction engine to which my improved belt guide to be later described, is adapted to be attached. This 50 attaching means consists of a flexible strip or band of steel 6 which partially encircles the boiler and has its ends cylindrically formed and threaded. These threaded ends of the band 6 are adapted to be disposed 55 through apertures provided in the ends of the curved plate 7 which also engages closely

upon the periphery of the boiler. Nuts 8 are threaded upon the cylindrical ends of the band 6 to securely clamp said band and the plate upon the boiler cylinder.

60 A laterally extending supporting plate 9 has one of its ends upwardly extended and curved for engagement upon the plate 7 to which said supporting plate is secured. Upon this supporting plate the belt guide 65 is mounted for longitudinal sliding movement. To this end I provide a hollow rectangular base 10 which loosely receives the plate 9. Upon this base a vertically disposed U-shaped plate 11 is bolted or secured 70 in any preferred manner, the ends of said plate being laterally extended in opposite directions as indicated at 12. The vertical parallel arms of the U-shaped plate 11 are provided with openings to receive trunnions 75 14 formed upon the opposite ends of a horizontally disposed roller 13. Vertical spindles 15 are fixed at their lower ends in the laterally disposed ends 12 of the plate 11 and upon these spindles the rollers 16 are loosely 80 mounted. As shown in dotted lines in Fig. 2, the lower stretch of the driving belt B rests upon the horizontally positioned roller 13, the edges of the belt contacting with the vertical rollers 16. These latter rollers 85 effectively prevent any lateral shifting movement of the belt. The spindle 15 upon which the inner roller 16 is mounted is vertically extended and upon the upper end thereof a second roller 16' is mounted to rotate. With this latter roller the inner edge 90 of the upper stretch of the belt B contacts, thereby holding said upper stretch of the belt out of engagement with the boiler and thus preventing excessive wear thereon. 95

In order to readily throw the belt off the drive wheel, I provide a lever 17 fulcrumed intermediate of its ends upon an arm 18 which is secured to the attaching plate 7. A link 18' is pivotally connected at one of its 100 ends to the lower end of this lever, the other end of said link being pivoted to the base 10. An actuating lever 20 is loosely connected to the upper end of the lever 17 and pivotally mounted upon a bracket 21 which is 105 fixed to the engine boiler. This lever is adapted for engagement with the teeth of a rack 22. It will be obvious that upon shifting the lever 20 in the proper direction, the base 10 will be moved upon the supporting 110 plate 9 through the medium of the lever 17 outwardly thereon to throw the driving belt

B off of the drive wheel. In the use of the invention upon traction engines, the belt is supported and guided as the engine is backed to engage the drive wheel thereof with the belt.

From the foregoing it is believed that the construction and manner of use of my improved guide belt and throwing device will be clearly understood. By means of the same considerable time and labor is saved in engaging the driving belt upon the engine drive wheel, and said belt will be properly held and guided in the operation of the engine. By the provision of the supporting and guiding rollers, friction and wear upon the belt is reduced to a minimum. The belt may also be easily and quickly removed from the drive wheel without twisting or otherwise injuring the same.

While I have described my improved belt guide and thrower in connection with a traction engine, it will be obvious that the device is not limited to this specific application. The invention is also susceptible of many other modifications in the form, proportion and arrangement of parts without departing from the essential features or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed is:

In combination with a supporting means adapted to be applied to the boiler of a traction engine, said means including a curved band and a metal strip having its ends removably engaged with the ends of

the band, of a supporting bar secured to the curved band and extending laterally therefrom, a base slidably mounted upon said bar, a U-shaped plate secured to said base and having its extremities projecting in opposite directions, a belt supporting roller mounted between the vertical arms of said plate, vertical spindles mounted upon the projecting ends of the plate, one of said spindles being of greater length than the other, rollers mounted upon said spindles with which the opposite edges of the lower stretch of the belt contacts, an additional roller mounted upon the upper end of the longer spindle for engagement by the upper stretch of the belt, a laterally extending arm secured to the upright portion of said supporting bar, a vertically disposed lever fulcrumed upon the outer end of said arm, the lower end of said lever being pivotally connected to the base, a fixed bracket, an operating lever supported intermediate of its ends upon said bracket, one end of said operating lever being loosely connected to the upper end of the first lever and the opposite end of said operating lever being adapted for movement to shift the base longitudinally upon the supporting bar and throw the belt from a drive wheel.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

OTTO H. OSWALD.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."