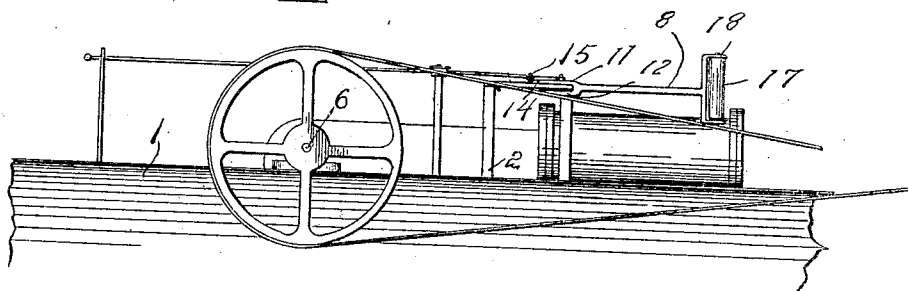
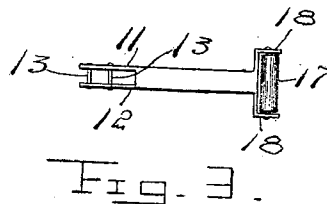
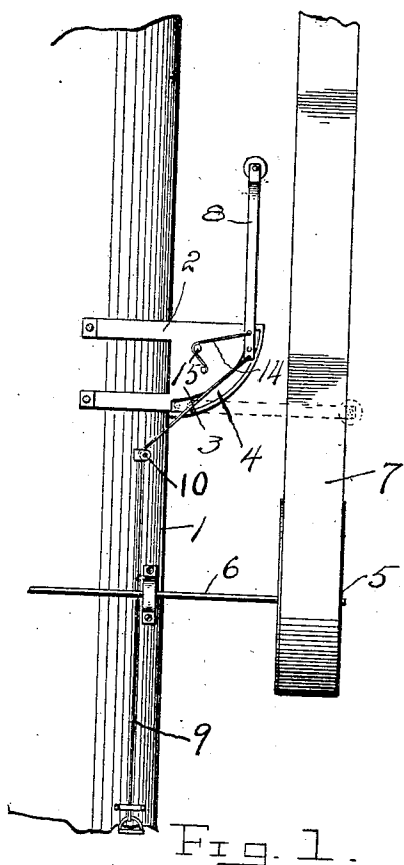


No. 823,352.

PATENTED JUNE 12, 1906.

D. McDONALD.
BELT SHIFTER.

APPLICATION FILED AUG. 15, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

DONALD McDONALD, OF CRYSTAL, NORTH DAKOTA.

BELT-SHIFTER.

No. 823,352.

Specification of Letters Patent.

Patented June 12, 1906.

Application filed August 15, 1905. Serial No. 274,339.

To all whom it may concern:

Be it known that I, DONALD McDONALD, a citizen of the United States, residing at Crystal, in the county of Pembina, State of North Dakota, have invented certain new and useful Improvements in Belt-Shifters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to belt-shifters.

One object of the invention is to provide means for the ready shifting or removal of a belt from the belt-wheel of a threshing-machine engine.

Another object of the invention resides in the provision of a simple, inexpensive, durable, and efficient means for the ready shifting or removal of a belt from a belt-wheel of a threshing-boiler or other machine or apparatus.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the drawings, Figure 1 is a top plan view of my invention. Fig. 2 is a side elevation. Fig. 3 is a detail view of the shifting-lever.

While it will be understood that my invention is particularly applicable for the shifting of a belt connected with a threshing-machine, it is to be understood that the invention is equally applicable for the shifting of belts employed in the driving of any machine. However, in the accompanying drawings I have illustrated my invention as applied for the shifting or removing of a belt from the belt-wheel of a threshing-machine engine.

Consideration of the accompanying drawings will therefore disclose that the reference character 1 designates the side of a boiler of a threshing-engine, to which is secured in any suitable manner the foot 2 of a quadrant-plate 3, provided with an arc-shaped slot 4 adjacent its outer edge for a purpose presently explained.

50 5 designates a pulley which is secured upon

the outer end of a shaft 6, journaled in the side of the boiler. In order to shift the belt 7, I provide a suitable arm 8, which is swung with reference to the quadrant-plate 3 by means of a suitable cable 9, having a guide-pulley 10. It will be seen that the arm 8 is bifurcated at its inner end to form oppositely-disposed legs 11 and 12, respectively, which engage the upper and lower faces of the quadrant-plate 3. By means of suitable bolts 13, piercing the said legs 11 and 12 and passing through the aforesaid arc-shaped slot 4, the arm is mounted for pivotal movement with respect to the plate 3. In order to hold the arm 8 in alinement with the side of the boiler, I provide a suitable spring 14, which is connected at one of its ends to a stud 15 and its opposite end arranged for engagement with the arm 8 to hold it normally in the said position. Now in order to shift the arm 8 I provide the aforesaid cable 9, and a pull upon the cable will cause the lever 8 to assume a position at a direct right angle to the plane of the aforesaid position of the lever, so that the bolts 13 of the arm 8, sliding in the aforesaid arc-shaped slot 4, assume the position shown in dotted lines in Fig. 1. When the arm 8 is thrown to the position shown in dotted lines in Fig. 1, the roller 17, which is mounted at the outer end of the arm 8 between the ears 18 of the latter, will engage the inner edge of the belt 7 and throw it outwardly from the pulley 5, as will be readily understood.

What is claimed is—

1. A device of the character described comprising a quadrant-shaped plate having an arc-shaped slot adjacent one of its edges, an arm, means associated with said arm and working in the said arc-shaped slot whereby the arm may be shifted from one position to another with reference to said slot, a roller carried by the outer end of the arm, and a spring for returning the arm to the position from which it is moved by said means.

2. A device of the character described comprising a quadrant-shaped plate, the said plate having an arc-shaped slot adjacent one of its edges, a pulley-wheel for the guiding of a belt, an arm, means passing through the

same and through said arc-shaped slot where-
by the said arm may be pivoted to said plate,
means for shifting the arm to engage the belt
to remove the latter from the aforesaid wheel,
5 and means for returning the arm to the posi-
tion from which it is moved by the aforesaid
means.

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

DONALD McDONALD.

Witnesses:

MURDO MATHESON,
PETER McDONALD.