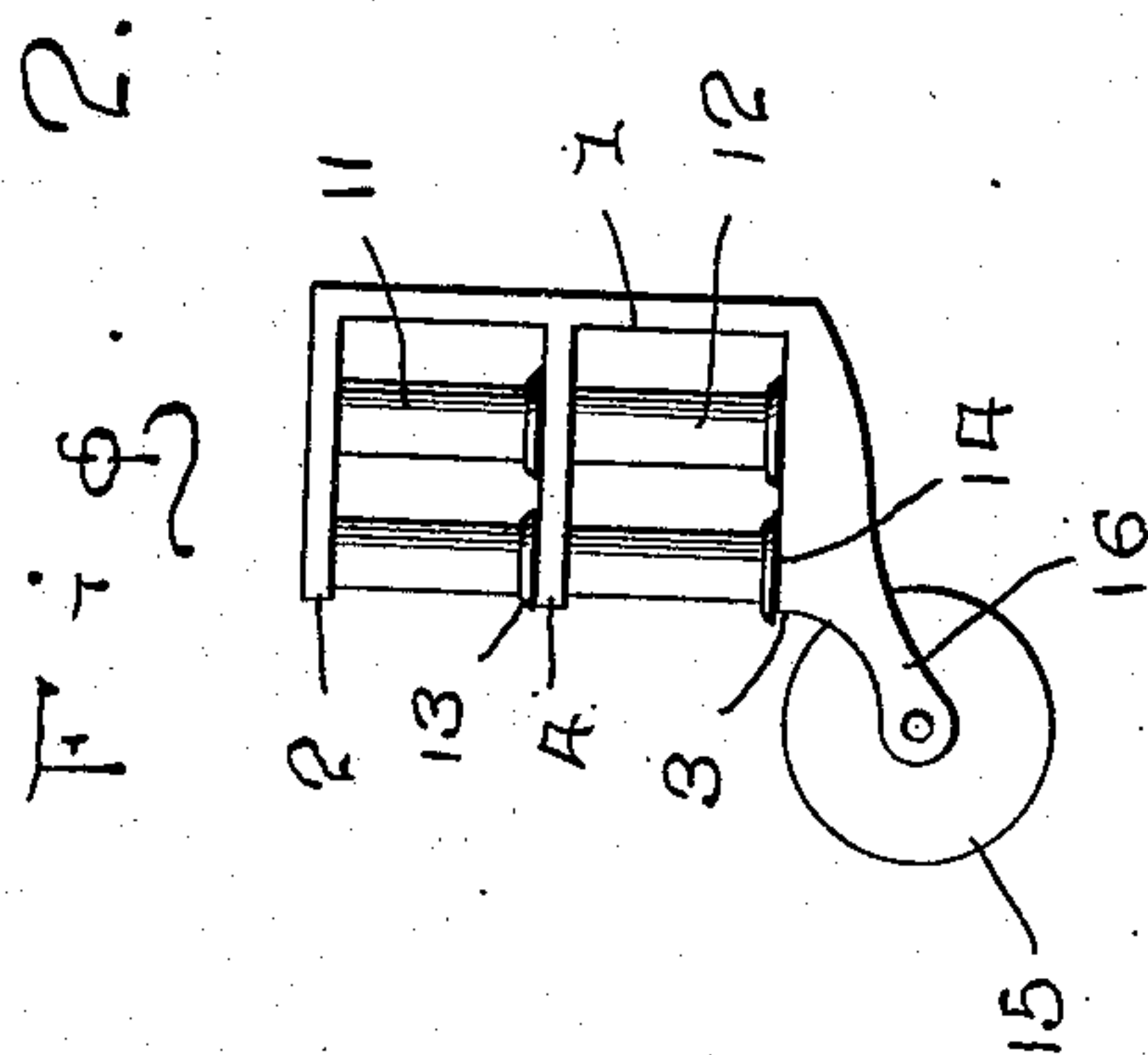
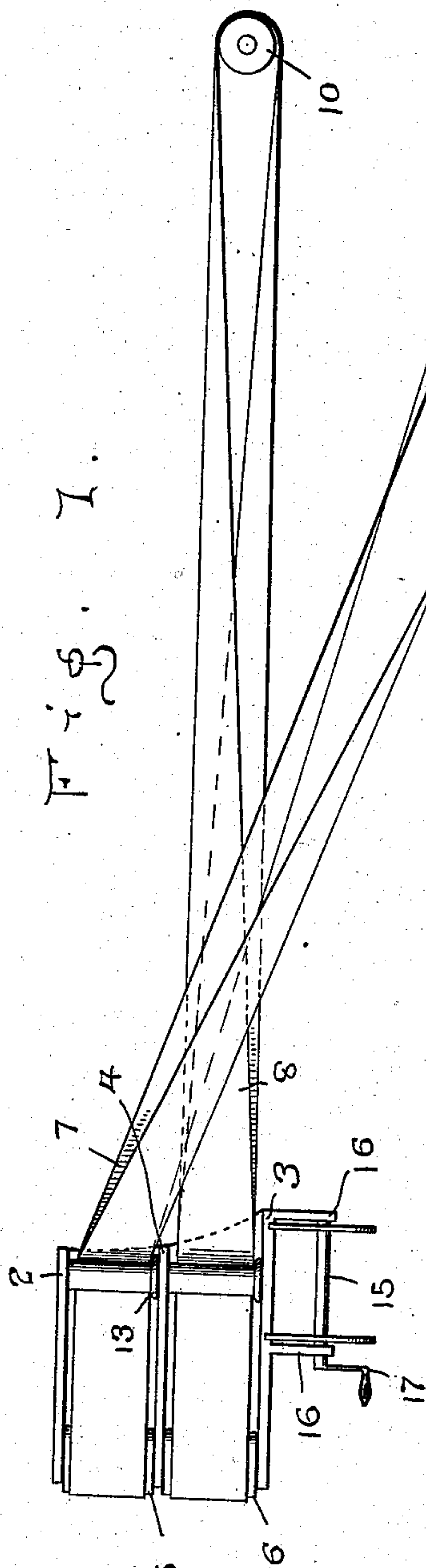


N. A. GROAT.
BELT GUIDE.

APPLICATION FILED MAR. 17, 1908.

899,970.

Patented Sept. 29, 1908.



WITNESSES:

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UNITED STATES PATENT OFFICE.

NELSON A. GROAT, OF MONTE VISTA, COLORADO.

BELT-GUIDE.

No. 899,970.

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed March 17, 1908. Serial No. 421,666.

To all whom it may concern:

Be it known that I, NELSON A. GROAT, a citizen of the United States, residing at Monte Vista, in the county of Rio Grande and State of Colorado, have invented certain new and useful Improvements in Belt-Guides; 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.

My invention relates to new and useful improvements in belt guides and more particularly to that class adapted to be used in connection with threshing separators and my object is to provide means whereby the engine may be set at various angles to the separator and a further object is to provide a reel upon which to wind the belt when not in use or when being transported.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is an elevation of my improved belt guide, showing belts attached thereto, and, Fig. 2 is an edge elevation of the guide.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the main frame of my improved belt guide, from the upper and lower edges and center of which extend bearing plates 2, 3, and 4, said plates extending in a horizontal plane and one above the other.

Rotatably mounted between the plates 2 and 4 and 3 and 4, respectively, are pulleys 5 and 6 fixed together, said pulleys being preferably located adjacent one end of the plates and around which take belts 7 and 8, respectively, the belt 7 being preferably employed for coöperation with a belt wheel 9 of an engine, while the belt 8 coöperates with a pulley 10 of a separator and in order to guide the belts and prevent the same from leaving their respective pulleys, guide rollers 11 and 12 are mounted between the plates 2 and 4 and 3 and 4, respectively, and at the opposite ends of the plates from the pulleys 5 and 6.

The guide rollers 11 and 12 are arranged in pairs and both folds of the belts 7 and 8 are passed between their respective pair of guide rollers and if desired, the lower ends of said guide rollers may be provided with circular flanges 13 and 14, which flanges engage the lower edges of the belts and guide the belts between the guide rollers when the outer ends of the belts are in a plane below their respective guide rollers. It will likewise be seen that the outer ends of the belts may be located at various angles to the longitudinal plane of the guide, the guide rollers serving to properly guide the belt around the driving pulleys 5 and 6, in which event the engine may be set at various angles to the separator and adjacent either end thereof.

When the belt 7 is disengaged from the belt wheel 9 and the separator is to be moved to a new location, said belt may be wound upon a reel 15, which reel is rotatably mounted between the arms 16 depending from the lower plate 3, one end of the reel shaft being provided with a crank 17, through the medium of which the reel may be operated to wind the belt thereon. This form of belt guide may be used in connection with various pieces of machinery, but is particularly adaptable for separators, as it has been the practice heretofore to set the engine directly in front of the separator and in alinement therewith, while by employing my improved belt guide, the engine may be placed at various angles to the separator and the operation of the separator remain the same as when the engine is in alinement therewith. It will likewise be seen that by providing the reel in connection with the guide, the belt extending to the engine may be readily stored when not in use, or when the separator is being transported and further that the belt guide may be attached to any form of separator at a minimum expense.

What I claim is:

In a belt guide, the combination with a frame having plates at the upper and lower edges thereof and a similar plate midway between the first mentioned plates, said plates extending in horizontal planes; of a pair of pulleys at one end of said plates, one of said

pulleys being between the middle plate and upper plate and the other between the middle plate and lower plate, guide rollers arranged in pairs at the opposite ends of said
5 plates and having flanges at the lower ends thereof adapted to engage the lower edges of belts passing between said guide rollers.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NELSON A. GROAT.

Witnesses:

J. FRANK GOAD,

JESSE STEPHENSON.