

E. D. ROBERTS.  
FAIR LEADER.

APPLICATION FILED DEC. 21, 1908.

920,394.

Patented May 4, 1909.

Fig. 1.

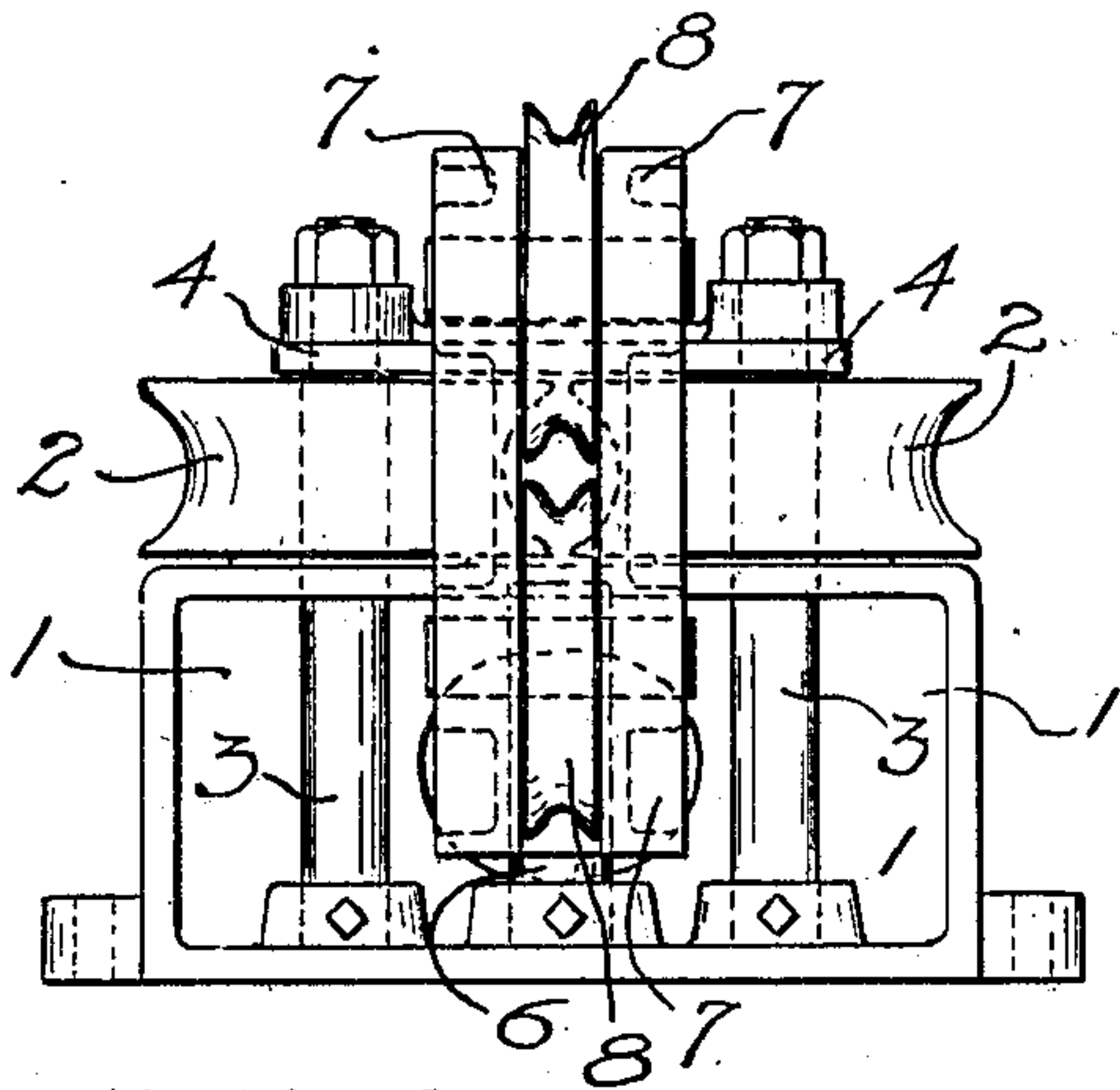
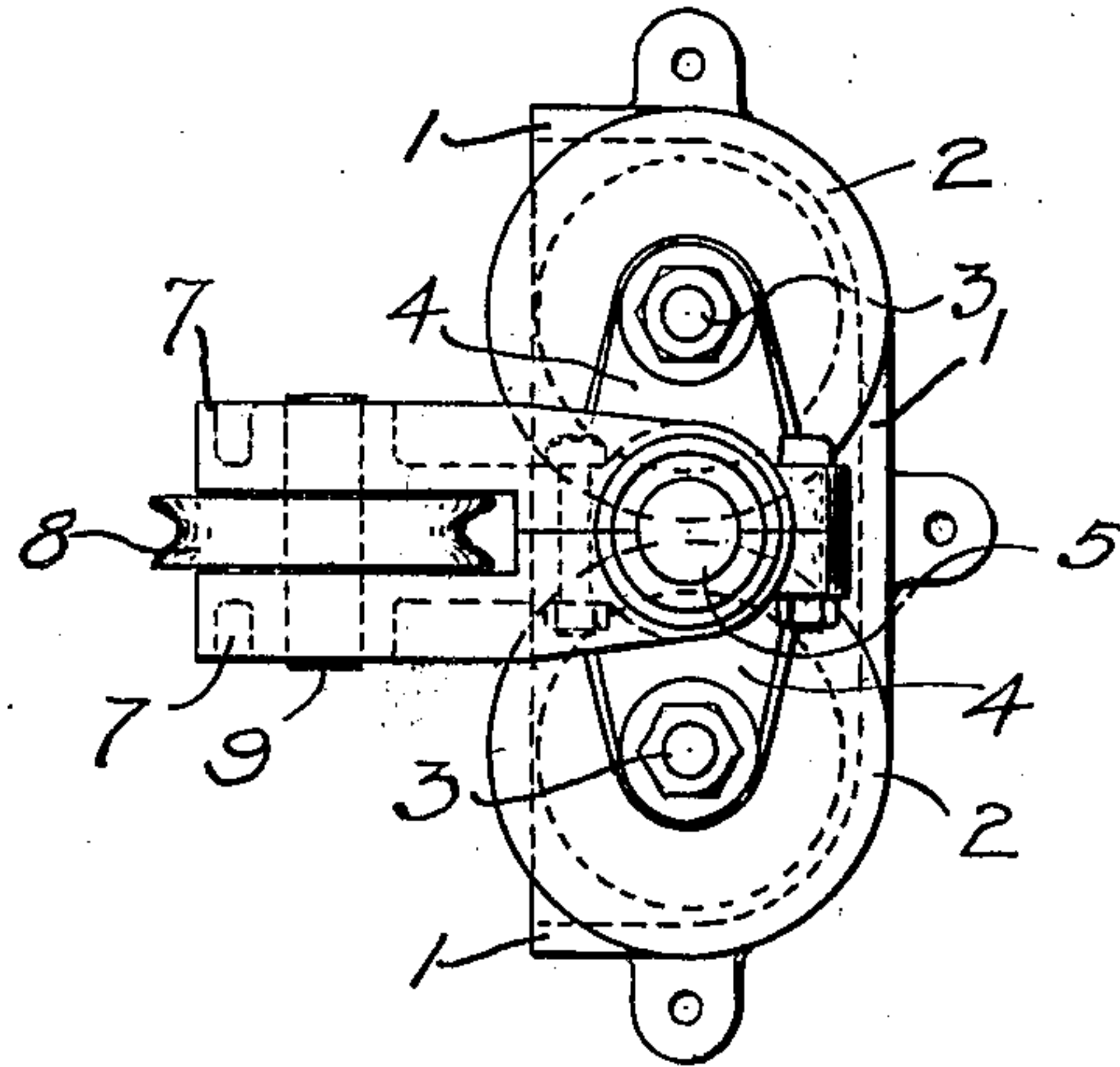


Fig. 2.

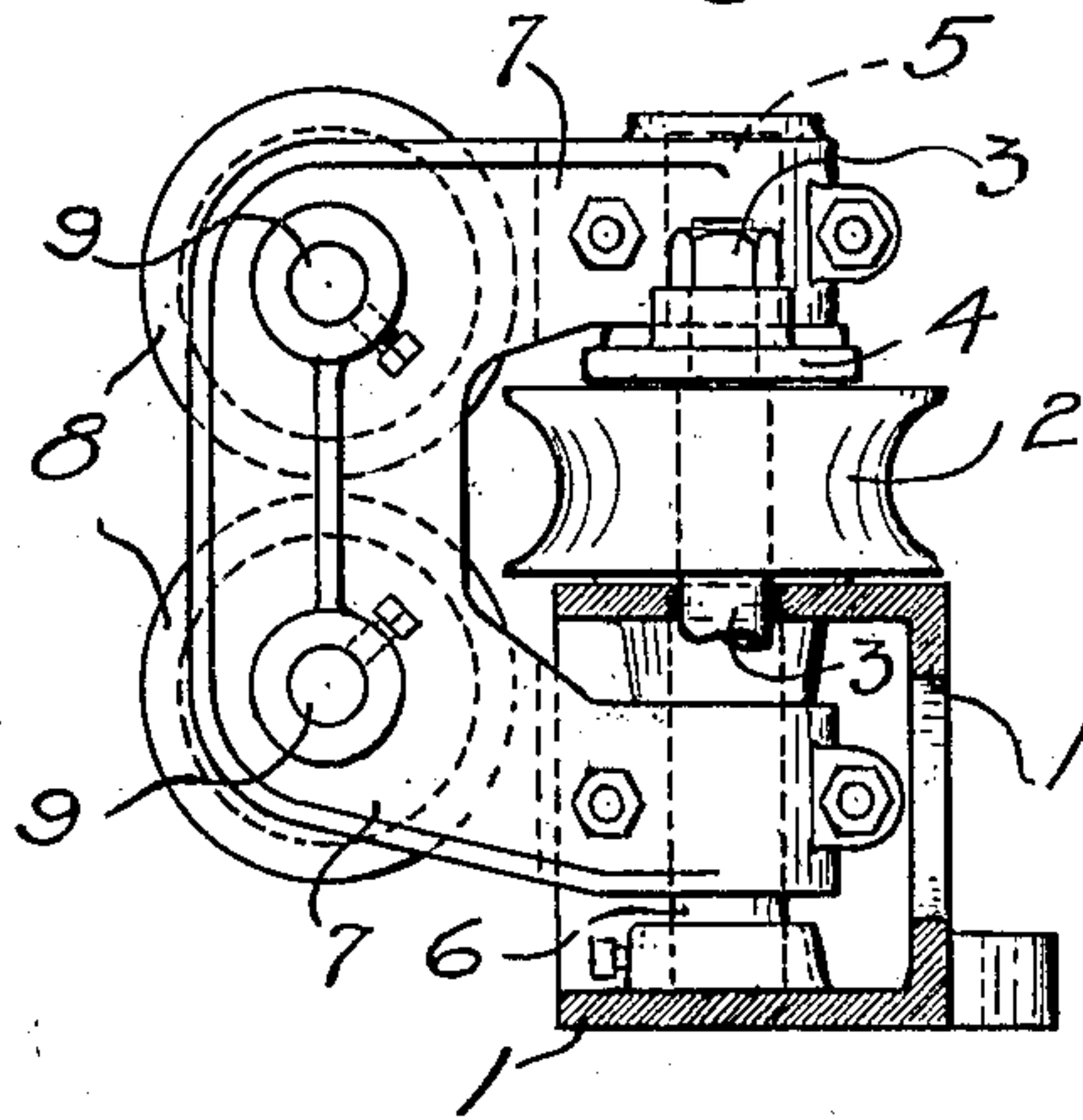


Fig. 3.

WITNESSES:

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## FAIR LEADER.

No. 920,394.

Specification of Letters Patent.

Patented May 4, 1909.

Application filed December 21, 1908. Serial No. 468,548.

*To all whom it may concern:*

Be it known that I, EUGENE D. ROBERTS, a citizen of the United States of America, residing at Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Fair Leaders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to fairleaders or guiding devices for cables being wound on, or passing from, a drum or spool of a hoisting or logging engine or other similar machine.

The object of my invention is to guide the cable so that it will wind evenly on the drum and will not become bunched at any point on the drum by the coils climbing one above the other in irregular order.

Another object is to reduce the wear on the cable by making the bends therein uniform and by the shape of the guiding sheaves.

I attain these objects by the devices and mechanisms illustrated in the accompanying drawing, in which—

Figure 1 is a plan of my improved fairleader; Fig. 2 is a front elevation thereof; and Fig. 3 is a side elevation thereof parts being sectioned.

Similar numerals of reference refer to similar parts throughout the several views.

My improved fairleader is provided with a frame 1 adapted to be mounted on the head-block of the hoisting engine or at any other suitable position. The two horizontal grooved sheaves or rolls 2 are mounted on pins 3 securely fastened in vertical position in the frame 1, the said rolls 2 being above the upper surface of said frame 1. The upper ends of the pins 3 are joined together by a yoke 4, above the rolls 2, in the center of which is secured the vertical gudgeon 5 which extends upward therefrom. A vertical pintle 6 is removably secured in the same axial line as the gudgeon 5 but below the rolls 2 and preferably between the upper and lower plates of the frame 1. The double or forked bracket 7 is pivotally mounted on the gudgeon 5 and pintle 6 so as to turn freely about the vertical axis thereof. The

two vertical grooved sheaves 8 are mounted in the central plane of the bracket 7 and rotate freely on the pins 9 therethrough. The bracket 7 is preferably made in two complementary halves suitably bolted together as shown.

My invention operates in the following manner:—The frame 1 is secured in front of, and a short distance from, the drum of the hoisting engine with the bracket 7 nearest the drum. The cable passes between the vertical sheaves 8 in the swinging bracket 7 and then between the horizontal sheaves or rolls 2, which are rotatably mounted in fixed positions on the frame 1, and from thence to the work. As the cable winds or unwinds across the barrel of the drum the bracket 7 carrying the grooved sheaves 8 swings on the gudgeon 5 and pintle 6 thus allowing the cable to be served fairly across the drum. The grooves in the horizontal rolls 2 are comparatively shallow thus allowing the cable a certain amount of vertical variation as it leaves them. These rolls 2 permit the cable to be led to the right or left hand to the work.

Having described my invention what I claim is:

1. In a device of the class described, the combination with the frame, of a pair of fixed horizontal rolls rotatably mounted on the frame; and a pair of vertical rotatable sheaves revolubly mounted about a vertical axis centrally positioned between the axes of said horizontal rolls.

2. In a device of the class described the combination with the frame; of a pair of fixed horizontal rolls rotatably mounted on the frame; a yoke mounted above said rolls; a vertical gudgeon secured to said yoke; a pintle secured to the frame coaxial with and below said gudgeon and below said rolls; a bracket mounted on said gudgeon and pintle and revoluble thereon; and vertical sheaves rotatably mounted on said bracket.

3. In a device of the class described, the combination with the frame; of a pair of fixed horizontal rolls rotatably mounted on the frame in the same horizontal plane; a horizontal yoke mounted above said rolls; a vertical gudgeon secured to said yoke cen-



trally between the axes of said horizontal  
rolls; a pintle secured to the frame coaxial  
with and below said gudgeon and below said  
rolls; a bracket mounted on said gudgeon  
5 and pintle and revoluble thereon; and ver-  
tical sheaves rotatably mounted on said  
bracket in the same vertical plane.

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

EUGENE D. ROBERTS.

Witnesses:

W. D. WILLIAMS,  
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