

No. 739,148.

PATENTED SEPT. 15, 1903.

E. S. BUCKLEY.
PULLEY.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

Fig. 2

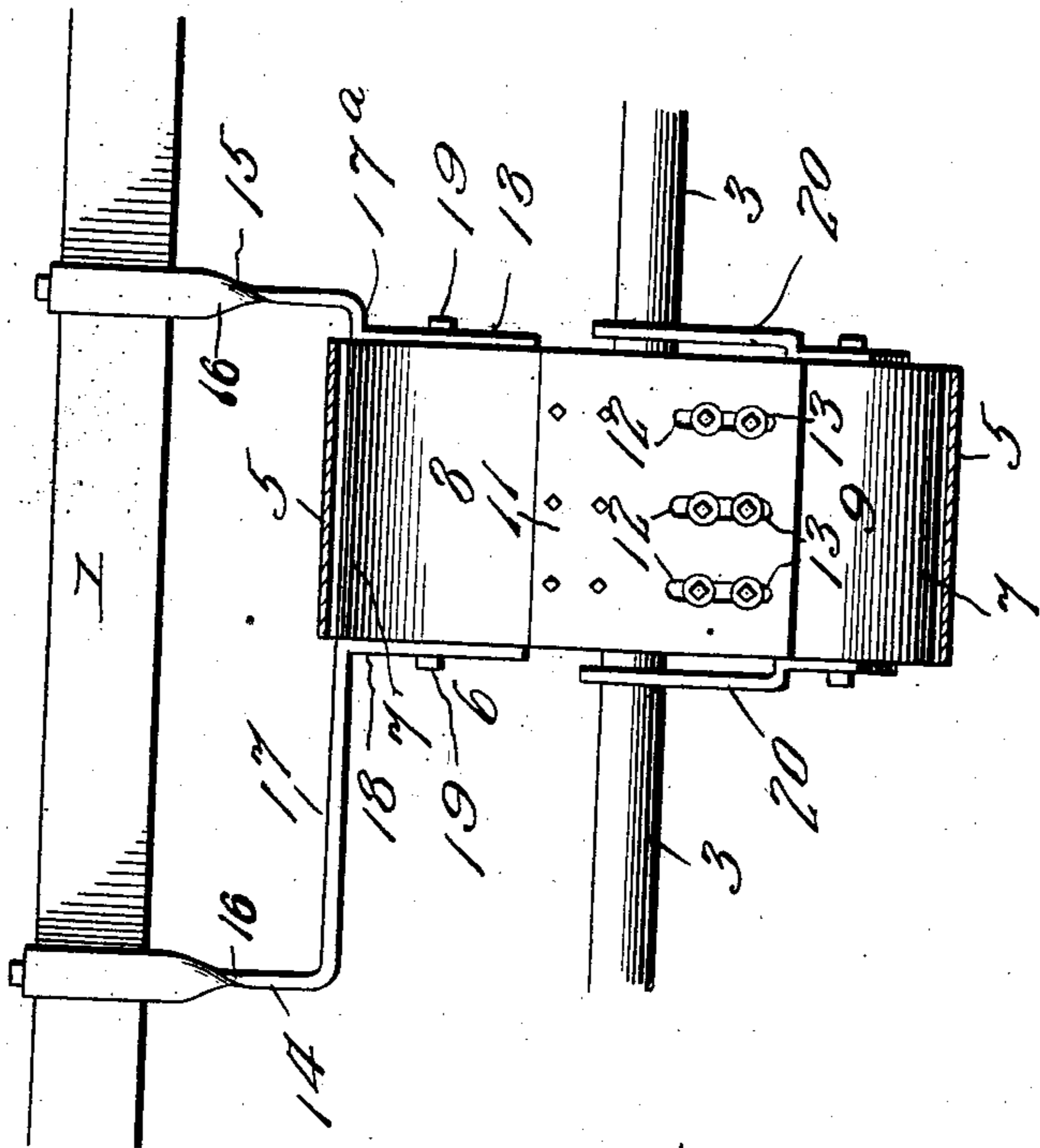
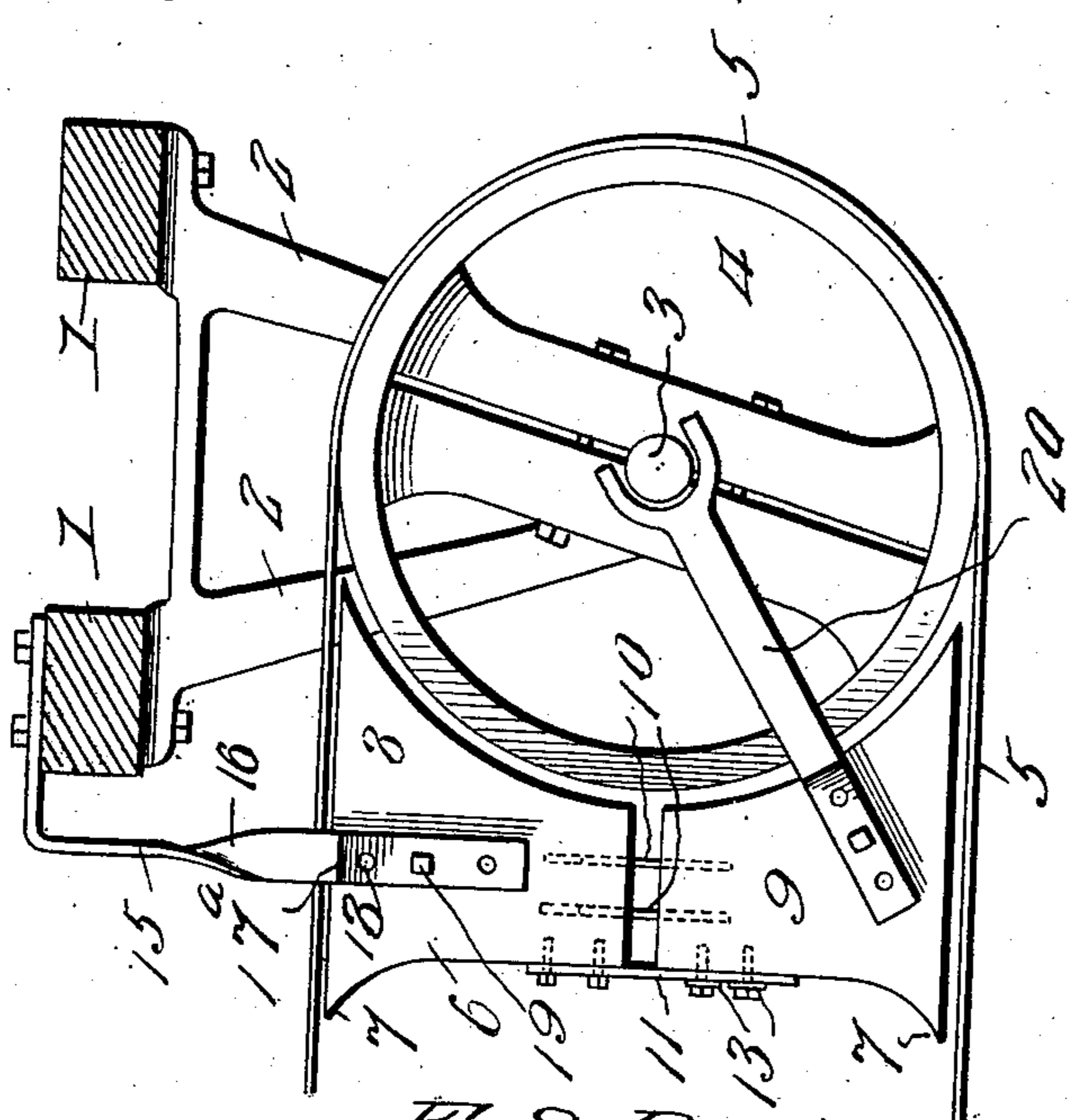


Fig. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ELIJAH S. BUCKLEY, OF NEW BERLIN, NEW YORK.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 739,148, dated September 15, 1903.

Application filed February 7, 1903. Serial No. 142,384. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH S. BUCKLEY, a citizen of the United States, residing at New Berlin, in the county of Chenango and State of New York, have invented new and useful Improvements in Pulleys, of which the following is a specification.

This invention relates to pulleys; and the primary object thereof is to provide a guard adapted to obviate all liability of the wearing-apparel, fingers, or arms of persons being caught between the periphery of the pulley and a belt while they are in motion, thereby rendering less precarious the approach to this class of moving machinery.

A further object of the invention is to provide a guard capable of adjustment, whereby pulleys of varying diameters may be accommodated.

Still further objects are to provide a guard which may be readily and quickly secured in and removed from its applied position and one that is cheap, durable, and efficient.

The invention consists of the construction, combination, and arrangement of parts hereinafter fully described and claimed.

The accompanying drawings disclose the preferred form of my invention, and in which—

Figure 1 is a side elevation of a pulley equipped with a guard of my improved construction. Fig. 2 is a front elevation thereof.

1 1 designate suitable supports to which is secured a bearing-hanger 2, carrying a shaft 3. This shaft has keyed thereto a pulley 4, around which passes a belt 5.

6 designates the guard, which is adapted to be secured a little in advance of and in longitudinal alinement with the pulley and between the upper and lower strands of the belt, thereby closing the approach to the pulley in such a manner as to obviate all liability of articles being caught between the periphery of the pulley and the belt. The width of the guard corresponds to that of the periphery of the pulley and has the inner face thereof curved to conform to that portion of the pulley's periphery not covered by the belt, whereby the guard is permitted to wholly cover the space of the periphery unoccupied by the belt, thereby preventing any article being intro-

duced between the pulley and guard. The outer face of the guard is curved inwardly to provide forwardly-projecting extensions 7, which are adapted to lie in close proximity to the strands of the belt and to direct, through virtue of their curvature, any article that may be brought into contact therewith by the moving belt toward the center of the guard, consequently obviating any liability of articles being carried past the guard.

The guard comprises upper and lower sections 8 and 9, respectively, secured together in such manner as to render them capable of being moved toward or from each other to increase or diminish the height of the guard, whereby pulleys of varying diameter may be accommodated. The sections are secured together through the medium of drive-pins 10 and a plate 11. The plate 11 is rigidly secured to the outer face of the section 8 to depend therefrom and has the lower half thereof provided with elongated slots 12, through which pass to engage the lower section suitable fastening means 13.

It is apparent that by providing the plate 11 with elongated slots and connecting the upper and lower sections with drive-pins the width of the guide is capable of being readily and quickly increased or diminished and that this double connection secures the two sections against any casual relative movements. The guard is supported in applied position by means of brackets 14 and 15, which may be constructed from strips of any suitable metal bent to form vertically and horizontally disposed portions 16 and 17, respectively, the latter carrying suitable fastening means adapted to engage one of the supports 1 to secure the brackets in applied position. The portion 16 of the bracket 14 is bent to form a laterally-projecting arm 17 of a length a little greater than the width of the belt 5, whereby it is adapted to form a support for the belt when shifted from the pulley. The portion 16 of the bracket 15 is provided with a similar arm 17^a, and depending from these arms are vertically-disposed portions 18, which are provided with a plurality of perforations for the reception of fastening means 19 to secure the bracket to the upper portion of the guard. The provision of the portions 18 with a plu-

5 rality of perforations permits of a vertical adjustment of the guard, and the interposition of the arm 17^a between the portions 16 and 18 places the portion 16 a sufficient distance from the belt so as to obviate all liability of its being obstructed in its freedom of movement.

10 To prevent the guard from having a horizontal movement on the brackets and the consequent obstruction of the pulley's freedom of rotation, I provide the lower section of the guard with rearwardly-projecting arms 20. These arms have their rear ends bifurcated to embrace the shaft 3, but not to normally come in contact therewith, and they 15 serve to limit the rearward horizontal movement of the guard sufficiently to prevent its coming in contact with the pulley in a manner that is apparent.

20 It is obvious from the above description, taken in connection with the accompanying drawings, that I provide a guard that will obviate any liability of articles of any description being drawn between the belt and pulley and that the same is cheap and durable.

25 Having thus described the invention, what is claimed as new is—

1. The combination with a pulley and belt, of a guard comprising sections, means for connecting the sections and also to cause them 30 to move from or approach each other to increase or diminish the length of the guard, and means for securing the guard in applied position.

35 2. The combination with a pulley and belt, of a guard comprising sections, a plate secured to one of the sections, means for adjustably connecting the other section to the plate, and

means for securing the guard in applied position.

3. The combination with a pulley and belt, of a guard comprising sections, a plate secured to one of the sections, means for adjustably connecting the other section to the plate, 45 dowel-pins connecting the two sections, and means for securing the guard in applied position.

4. The combination with a pulley and belt, of a guard comprising sections, means for connecting the sections and causing them to move 50 from or approach each other, means for suspending the guard in front of the pulley, and means for preventing the horizontal movement of the guard.

5. The combination with a pulley and belt, of a guard adjustable to increase or diminish its length, means for adjusting the guard, 55 and means for securing the guard in applied position, the latter means adapted to receive the belt when shifted.

6. The combination with a pulley and belt, of a guard and brackets for securing the guard in applied position, one of the brackets being adapted to receive the belt when shifted. 60

7. The combination with a pulley and a belt, of a guard, brackets for securing the guard in applied position, one of the brackets being adapted to receive the belt when shifted, and means for preventing the horizontal movement of the guard. 65

In testimony whereof I affix my signature in presence of two witnesses. 70

ELIJAH S. BUCKLEY.

Witnesses:

HENRY H. HARRINGTON,
BYRON M. BUCKLEY.