No. 682,392. Patented Sept. 10, 1901.

J. A. THOMPSON.

TROLLEY.

(Application filed Apr. 18, 1901.)

(No Model.)

Fig. 1.

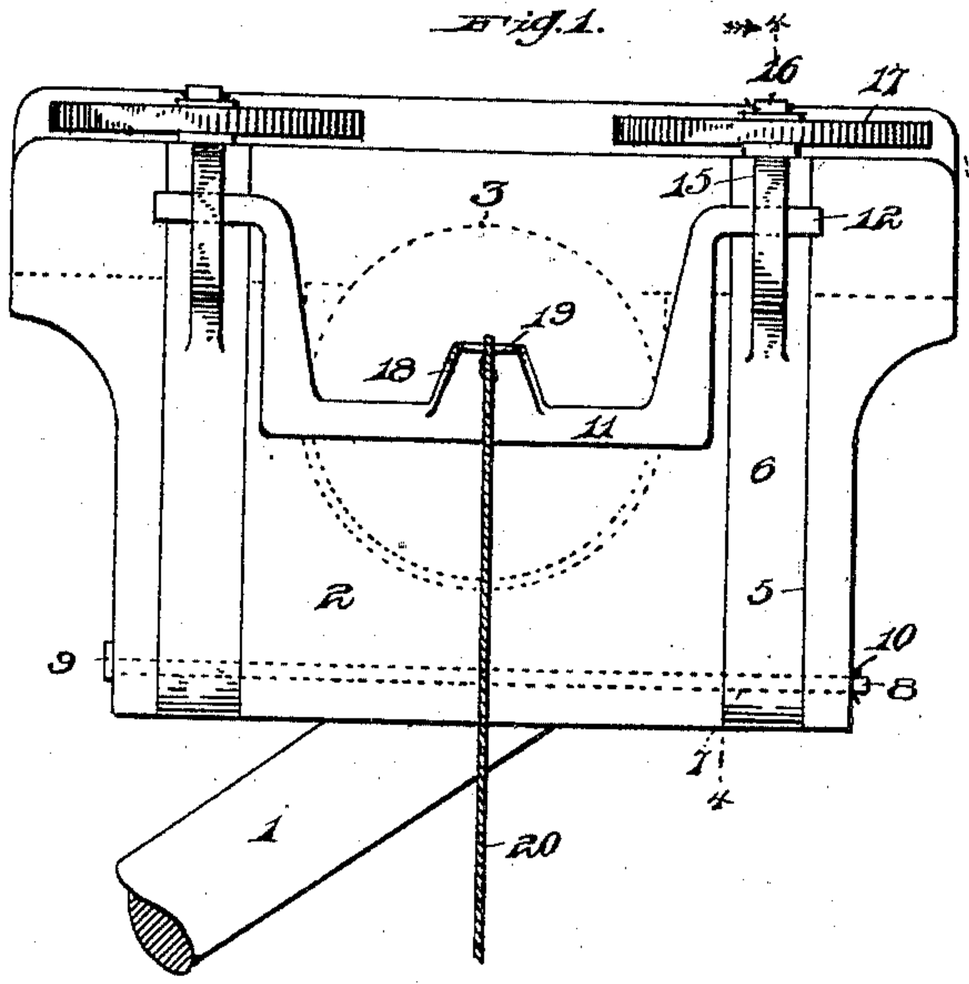


Fig. 2.

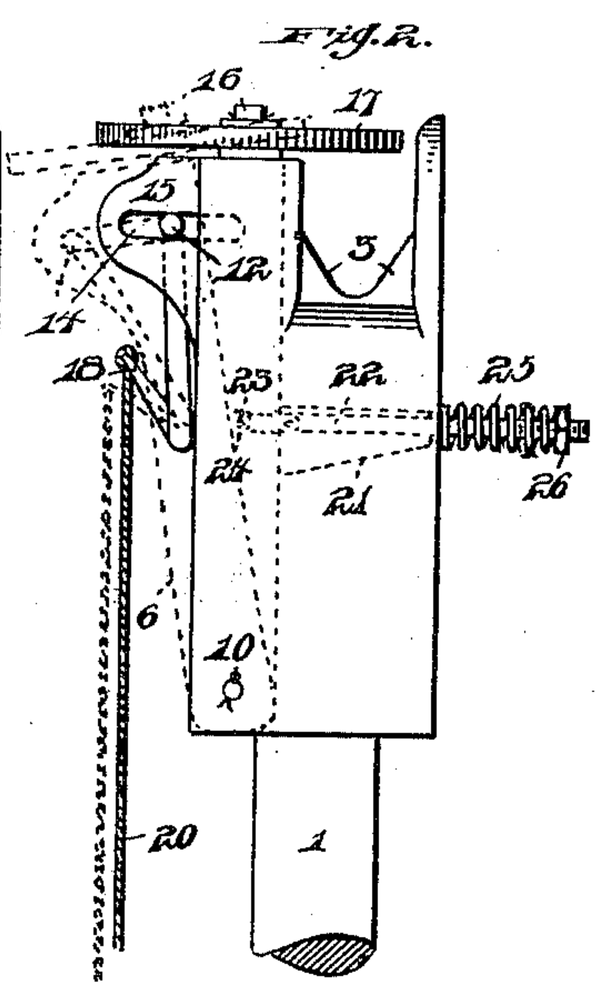


Fig. 3.

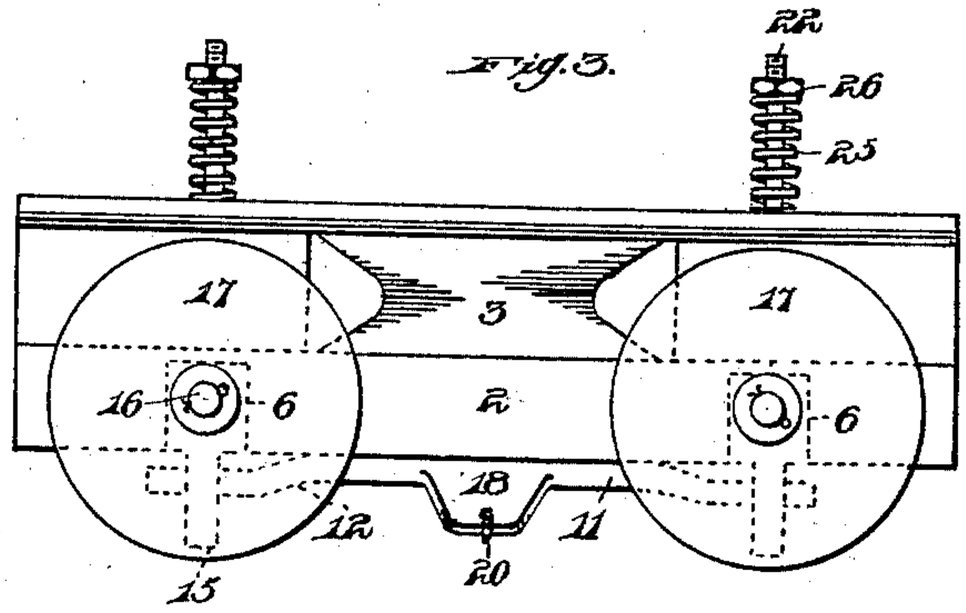


Fig. 4.

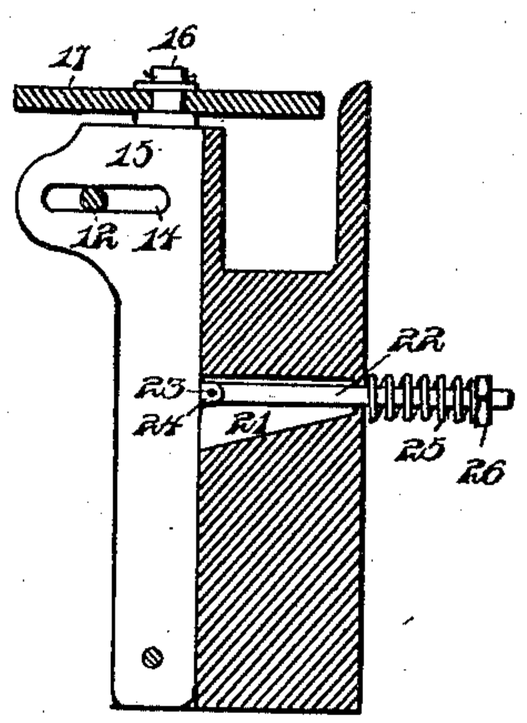
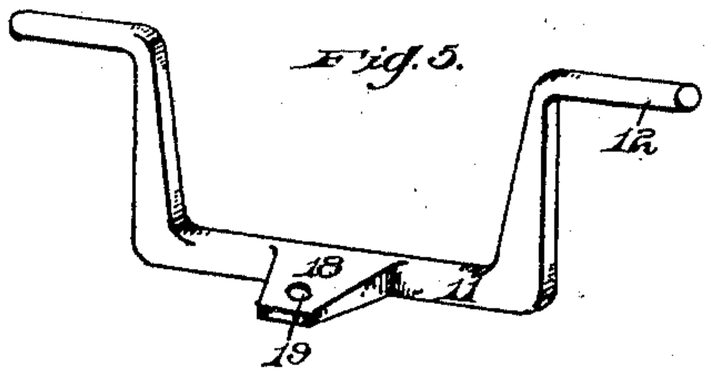


Fig. 5.



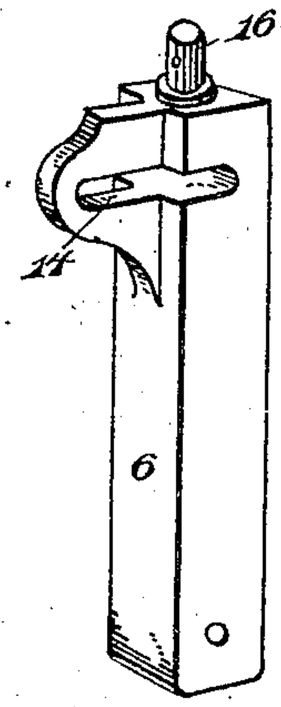


Fig. 6.

Witnesses:
J. P. Appleman,
E. E. Potter.

Inventor
J. A. Thompson
By
A. C. Emerson.
Atty.

UNITED STATES PATENT OFFICE.

JACOB A. THOMPSON, OF McDONALD, PENNSYLVANIA.

TROLLEY.

SPECIFICATION forming part of Letters Patent No. 682,392, dated September 10, 1901.

Application filed April 18, 1901. Serial No. 56,508. (No model.)

To all whom it may concern:

Be it known that I, JACOB A. THOMPSON, a citizen of the United States of America, residing at McDonald, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Trolleys, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in trolleys, and relates more particularly to that class of trolleys that will not become accidentally disengaged from the wire.

The present invention aims to construct a trolley that will be extremely simple in construction, strong, durable, and comparatively inexpensive to manufacture, and arrange the parts in such a manner that they are not liable to become out of order or broken.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved trolley. Fig. 2 is an end elevation of the same. Fig. 3 is a top plan view thereof. Fig. 4 is a vertical sectional view taken on the line 4 4 of Fig. 1. Fig. 5 is a perspective view of the yoke. Fig. 6 is a perspective view of one of the pivoted brackets.

In the drawings, 1 indicates the trolley-pole, and 2 the trolley-harp, in which is mounted the usual trolley-wheel 3. In the one side of the trolley-harp are formed recesses 5 to receive the pivoted brackets 6, being pivotally attached at their lower ends 7 upon the rod 8, said rod 8 being provided at its one end with a head 9 and at its other end with an opening adapted to receive the wire 10 or other suitable fastening means.

The reference-numeral 11 indicates a yoke carrying outwardly-extending arms 12, which are adapted to operate in slots 14, arranged on the upper portion of the head 15 of the pivoted brackets 6. The said heads 15 carry at their upper extremity shafts 16, upon which are rotatably mounted wheel 17, operating horizontally and transversely to the trolley-wheel 3. The said yoke 11 carries centrally a lug 18, having formed therein an opening 19 to receive an operating-rope 20. In the trolley-harp are also formed two openings 21 in the rear of the pivoted brackets 6, and in these openings are arranged rod 22, pivotally secured at 23 to lugs 24, secured on the rear face of the pivoted brackets 6. A spiral spring 25 encircles the end of the rod 21, the one end of said spring bearing against the face of the trolley-harp and the other end abutting against the nut 26, arranged upon the end of the rod 22. The said springs 25 serve to return the pivoted brackets carrying the wheels 17 to their normal position.

The operation of my improved trolley is as follows: The trolley-wheel engages the wire in the usual manner, and in case the hangers, breakers, or like constructions are encountered the pivoted brackets are independently operated through the medium of the wheel 17 striking the obstruction, allowing the pivoted brackets to operate independent and the arm 12 to ride in the slot 14, the spring serving to return the brackets carrying the wheel to their normal position. This operation is clearly illustrated in dotted lines in Fig. 2 of the drawings. When it is desired to disengage the trolley from the wire, the operating-cord 20 will cause the yoke to move the pivoted brackets in unison to the position as shown in dotted lines in Fig. 2 of the drawings, which will allow the trolley-harp to disengage from the trolley-wire.

The many advantages obtained by the use of my improved trolley will be readily apparent from the foregoing description when taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a trolley, the combination of a trolley-harp having recesses formed therein, pivoted brackets secured in said recesses, a shaft upon

which said pivoted brackets are secured, heads having slots therein formed at the upper end of said pivoted brackets, a yoke secured in said slots, an operating-cord secured to said yoke, horizontally-arranged wheels secured to the upper end of said heads, rods extending through said trolley-bar in the rear face of said pivoted brackets, and springs encircling the ends of said rods whereby the said brackets and wheels are returned to their normal position, all parts being arranged and operating substantially as herein shown and described.

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

JACOB A. THOMPSON.

Witnesses:
JOHN NOLAND,
E. E. POTTER.