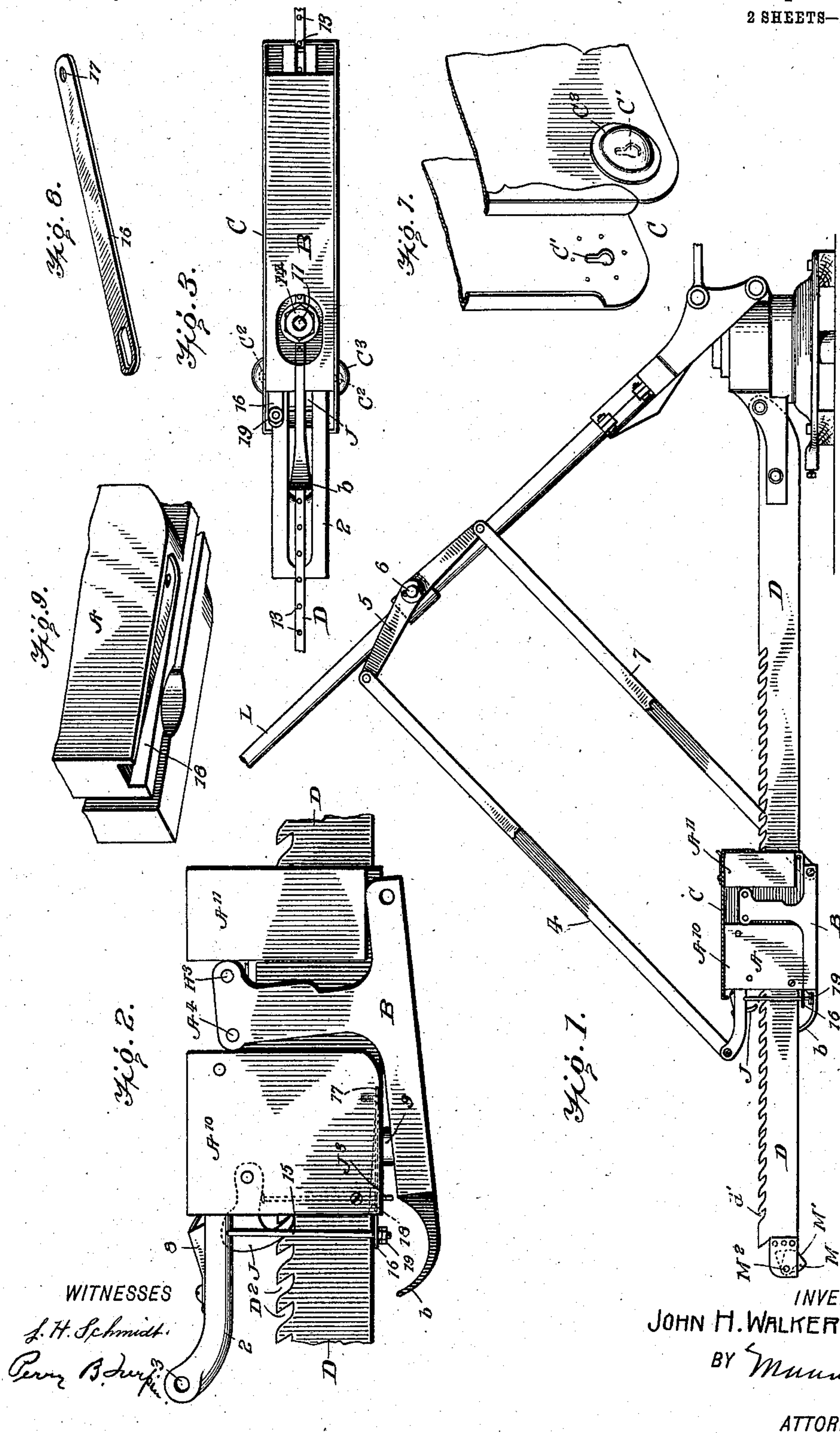


J. H. WALKER.
TROLLEY POLE CATCHER.
APPLICATION FILED DEC. 28, 1907.

899,578.

Patented Sept. 29, 1908.

2 SHEETS—SHEET 1.



WITNESSES
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APPLICATION FILED DEC. 26, 1907.

2 SHEETS—SHEET 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN H. WALKER, OF LEXINGTON, KENTUCKY.

TROLLEY-POLE CATCHER.

No. 899,578.

Specification of Letters Patent.

Patented Sept. 29, 1908.

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To all whom it may concern:

Be it known that I, JOHN H. WALKER, a citizen of the United States, and a resident of Lexington, in the county of Fayette and State of Kentucky, have invented certain new and useful Improvements in Trolley-Pole Catchers, of which the following is a specification.

This invention is an improvement in trolley pole catchers, and particularly in that class of such devices illustrated by my former patent No. 852,307, dated Apr. 30, 1907; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawings Figure 1 is a side view partly in section of an apparatus embodying my invention, the detent devices being adjusted clear of the rack so the carrier may slide freely back and forth along the track. Fig. 2 is a detail side view of a portion of the track, the cover being removed and the dog being engaged with the rack. Fig. 3 is a bottom plan view of the device, the cover being applied. Fig. 4 is a vertical longitudinal section of the device, the dog being clear of the rack. Fig. 5 is a top plan view of the device, the cover being removed. Fig. 6 is a detail perspective view of the stop device detached from its movable support. Fig. 7 is a detail view illustrating the construction of the cover for interlocking with the headed studs on the carrier. Fig. 8 is a detail perspective view of one of the springs, and Fig. 9 is a detail view of a portion of the under side of the carrier illustrating the recess in which the spring shown in Fig. 8 operates.

My present improvement differs from that shown in my former patent No. 853,307 in several respects, among which may be mentioned that in the present device I omit the dog, I, shown in my former patent, provide a spacing device operated from a movable support at the upper side of the carrier for properly spacing the catch or dog J with respect to the notches in which it engages in the track, also provide an auxiliary spring to supplement the action of the spring for securing the rocker in its different adjustments, and provide in connection with the trolley pole and the carrier two connecting rods, one of which connects with the rocker substantially as in my former patent, and the other of which connects with the movable support forming a part of the spacing device, and these two connecting rods connect with the

pole through the medium of a lever pivoted between its ends in connection with the trolley pole, and carrying the connecting rods at its opposite ends.

In the present construction I employ a carrier, comprising a body A, a rocker B, and a cover C, similar in many respects to the corresponding parts in my Patent No. 852,307 before referred to, and the body A of the carrier slides along the track D, which track D is provided along its upper edge with a series of notches D², and the carrier A is provided with a catch J in the form of a dog to engage in said notches D², as in my former patent.

The track D is provided at its rear end with a pivoted cam M having an inclined edge M' for engagement by a tongue or extension b at the rear end of the rocker B, and the plate M is pivoted at M² in such manner that it is rigid as against rearward movement from the position shown in Fig. 1, but when it is desired to release the trolley pole after it has been lowered, a slight further downward movement of the trolley pole will force the tongue b in rear of the cam M and said cam will rock when the carrier is moved forward to the position indicated in dotted lines in Fig. 1, and the carrier may be moved freely forward. The rocker B is pivoted on a bolt A⁴, and rocks between the positions shown in Figs. 1 and 2, and is yieldingly secured in either of such positions by the engagement of the stud H² carried by the rod H, actuated by a spring H', said stud H² thus engaging yieldingly with a bearing H³ in the form of a pin or bolt on the rocker B, as best shown in Fig. 4 of the drawings. When in the position shown in Fig. 4, the rocker B engages below and pushes up the pin J³ which is movable vertically in the body A and engages at its upper end below the catch J to free said catch from engagement with the notched upper edge of the track D.

The carrier A is provided at its opposite sides with upwardly projecting rear wings A¹⁰ and upwardly projecting forward wings A¹¹ and between the wings A¹⁰ I pivot at the front end of a lever 2, which forms a movable support for the spacing device, presently described, and which projects rearwardly beyond the carrier and connects at its rear end at 3 with the rod 4, leading to the upper end of the lever 5, pivoted at 6 to the trolley pole L, and the opposite end of which lever 5 is connected by the rod 7 with the

front end of the rocker B, as best shown in Fig. 1 of the drawings.

The lever 2 is provided between its ends with a housing 8, which overlies the catch or dog J, and protects the same from the weather and to the lever 2 between its ends is connected the upper end of a rod or bolt 9, which is slotted from its upper end at 10 so it may fit from below over the track D, and in its lower end in alinement with the slot 10 I provide the rod 9 with a threaded stud 11, whose upper end 12 is adapted to enter the spacing sockets 13 in the lower edge of the track D and corresponding with their respective notches D² in the upper edge of said track, as will be understood from Fig. 4 of the drawings. This spacing stud may be adjusted by its threaded connection with the rod 9 and secured in any suitable adjustment by a nut 14, as will be understood from Figs. 4 and 6 of the drawings. The lever 2 is connected by a rod 15 with a spring 16 connected with the carrier and operating to yieldingly oppose the upward movement of the lever 2. This spring 16 is in the form of a plate secured at one end 17 to the carrier and operating in a recess 18 in said carrier and alongside the track to permit the upward movement of the spring as the lever 2 is lifted forcibly by the movement of the trolley pole. The rod 15 may be adjusted in its connection with the spring 16 by means of nuts 19 as shown in Figs. 1 and 2. The connecting rod 4 being above the rod 7 will in operation, operate upon the lever 2, slightly in advance of the action of the rod 7 upon the rocker, the general operation being more fully described hereinafter.

A lubricating cup F is held between the upwardly projecting plates 11, has at its lower end a tubular extension F', fitting in a suitable recess in the top plate of the carrier and communicating through an opening F² with the track D below, to lubricate said track. This cup F receives waste F³ which may be saturated with lubricant and a spring follower F⁴ in the cup above the waste may be pressed down to properly compress the waste to secure the desired feed of oil. This spring follower F may be bent from wire and will operate by its resilience to bind itself in any desired position within the cup, as will be understood from Figs. 4 and 5 of the drawings.

The cover C may be of any suitable sheet metal and fits over the carrier and has its side plates provided with key-hole openings C' receiving the headed studs C² on the carrier, and caps C³ are secured on the outer sides of the cover C and form housings for the heads of the studs C² when the parts are applied as shown in Fig. 3 of the drawings.

In operation, when the parts are in the position shown in Fig. 1, the carrier may be slid freely along the track F in the adjustment

of the trolley pole to slight inequalities in the wire. If, however, when the parts are in the position shown in Fig. 1, the trolley wheel pole should slip from the wire, the connecting rods 4 and 7 will quickly throw the parts 2 and B, and the parts operated thereby to the position shown in Fig. 2, in which the spacing stud will be moved quickly up to engage in the proper manner with the sockets 13 and the rocker B will be thrown to the position shown in Fig. 2 in which it is clear of the pin J³, and the latter will drop with the dog or catch J, the latter engaging in the proper notch D² of the track, thus preventing the upward movement of the trolley pole. If now, the trolley pole be pulled down suddenly, such action will readjust the rocker B to the position shown in Figs. 1 and 4, and also throw the lever 2 down to the position shown in Fig. 1 so the carrier may be moved freely along the track. The spring actuated rod H with its point H² engaging above or below the bearing H³ on the rocker, operates to retain the rocker in the position shown in Fig. 4, except when forcibly moved out of such position in the operation of the device. When it is desired to move the trolley pole down flat upon the top of the car, the catch or dog J may be utilized for securing it in such position. In such position, the tongue or extension b at the rear end of the rocker moves into engagement with the pivoted cam M, which operates to force the said extension down, thus moving the rocker out of engagement with the pin J³, and permitting the dog to drop into the rear notch d' of the track. The cam will rock when the carrier is moved forward to the position indicated in dotted lines in Fig. 1, and the carrier may be moved freely forward, the pressure of the connecting rods 7 tilting the front end of the rocker down in such movement, as will be understood from the drawings.

I claim—

1. The combination substantially as herein described, of a trolley pole, a track, a carrier body movable along the track, a rocker pivoted to the said body, a catch or dog carried by the said body for engagement with the track, means whereby the rocker may release the dog from engagement with the track, a spacing device, a movable support therefor, a lever pivoted between its ends to the trolley pole, a rod connecting one end of said lever with the movable support for the spacing device, and a rod connecting the other end of said lever with the rocker.

2. The combination of a trolley pole, a track, a carrier movable along the track and comprising a body portion and operating parts movable relatively to the body portion and independent connecting rods between said operating parts and the trolley pole.

3. The combination of a track, a carrier body movable along the track, a dog for en-

gagement with the track, means for releasing the dog for engagement with the track, a spacing device having means below the track for engagement therewith, a rod extending thence upwardly above the track, and a lever connected between its ends with said rod and pivoted at one end to the carrier body, and means for operating said lever.

4. The combination of a track notched in its upper edge and provided in its lower edge with a series of spacing sockets, a carrier body movable along the track and having a dog for engagement with the upper notched edge thereof, a spacing stud adapted to enter the spacing sockets in the lower edge of the track, a support above the carrier body and movable relatively thereto and connections between said movable support and the spacing stud, and means for operating said movable support.

5. The combination with a track, of a spacing device having a stud, a rod supporting the stud and slotted longitudinally for the reception of the track and extending at its upper end above the track, a carrier body and a support to which said slotted rod is secured at its upper end, said support being movable relatively to the carrier body, and means for operating said movable support.

6. The combination of a trolley pole, a track, a carrier body movable along the track, a dog on the carrier body for engagement with the track, a spacing device, a rocker, means whereby the rocker may release the dog from engagement with the track, a lever pivoted to the carrier and connected with the spacing device for operating the latter, and independent connections between said lever and said rocker and the trolley pole.

7. The combination of a trolley pole, a track, a carrier body movable along the track, a dog on the carrier body for engagement with the track, a rocker, means whereby the rocker in one position will release the dog from engagement with the track, means for holding the rocker yieldingly in its dif-

ferent positions, a spacing device, a lever for operating the spacing device, and a spring acting upon said lever, substantially as set forth.

8. The combination of a track, a trolley pole, a dog carried by the carrier body, a rocker pivoted to the carrier body, means whereby the rocker may operate to release the dog from engagement with the track, a lever connected with the carrier body, spacing devices carried by said lever, a spring connected with the carrier body, and a rod between said spring and lever, and independent connections between said lever and rocker and the trolley pole.

9. The combination of a track, a carrier body movable along the track and having projecting headed studs, and a cover fitting over the carrier body and having its depending plates provided with key-hole slots for the reception of said headed studs.

10. The combination of a track, a carrier body movable along the track, a spacing stud for engagement with the lower edge of the track, a rod in which said stud is threaded whereby it may be adjusted, said rod extending upwardly alongside the track, and a movable support with which said rod is connected.

11. The combination of a track notched in its upper edge for engagement by a dog and having in its lower edge a series of sockets, a carrier movable along the track and having a dog to engage in the top notches thereof, a spacing stud adapted to enter the sockets in the lower edge of the track, a movable support for said spacing stud, a trolley pole, a connection between said support and the trolley pole, a rocker pivoted to the carrier, means whereby the rocker may operate to free the dog from engagement with the track and a connection between said rocker and the trolley pole.

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Witnesses:

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