No. 688,754. Patented Dec. 10, 1901.

# H. C. TAZEWELL.

## DUST GUARD.

(Application filed Sept. 7, 1901.)

(No Model.)

Fig. 3.




Fig. 1.

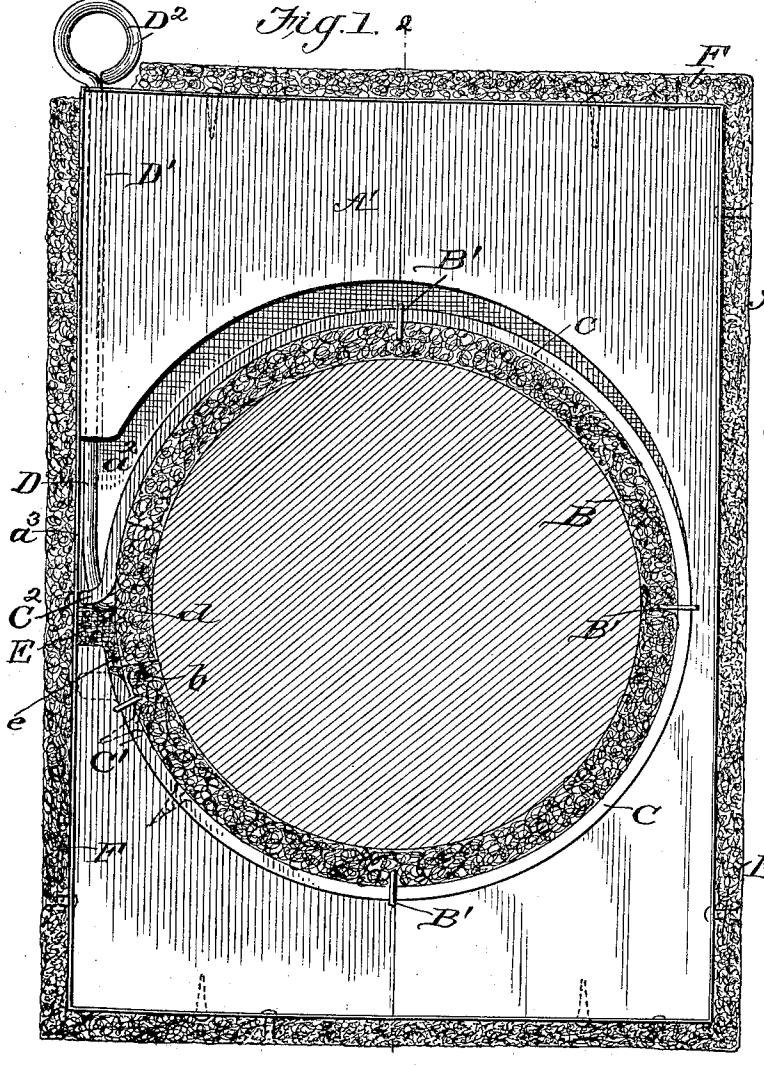



Fig. 2.

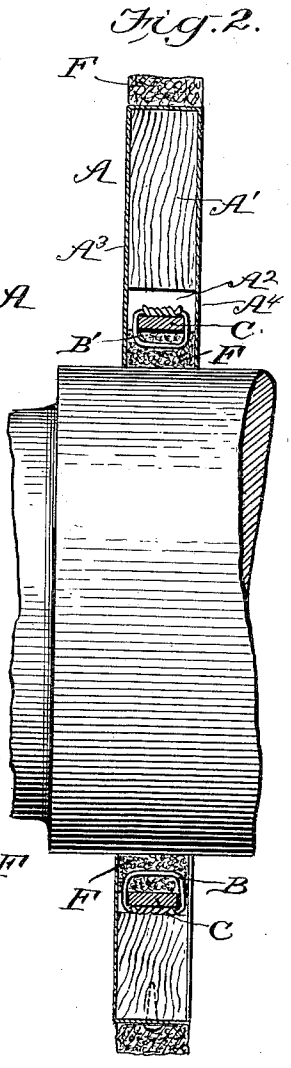
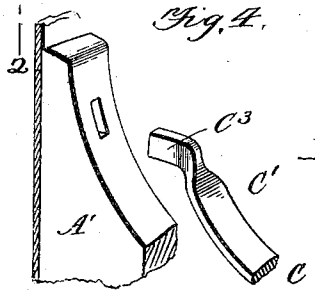



Fig. 4.




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# UNITED STATES PATENT OFFICE.

HARRY CLAY TAZEWELL, OF WILMINGTON, DELAWARE.

## DUST-GUARD.

SPECIFICATION forming part of Letters Patent No. 688,754, dated December 10, 1901.

Application filed September 7, 1901. Serial No. 74,635. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY CLAY TAZEWELL, a citizen of the United States, residing at Wilmington, in the county of Newcastle and State of Delaware, have made certain new and useful Improvements in Dust-Guards, of which the following is a specification.

My invention is an improvement in dust-guards for use on car-axles, and has for an object to provide a novel construction of guard which can be readily applied, will efficiently serve its purpose, and in which the packing can be conveniently renewed when necessary; 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 face view of my improved dust-guard with one of the keeper-plates removed. Fig. 2 is a vertical section on about line 2 2 of Fig. 1. Fig. 3 is a top plan view of the dust-guard, and Fig. 4 is a detail view illustrating the flattened end of the spring-rod and the fitting of same into the slot in the carrier.

My guard, as shown in the drawings, includes a carrier A, split packing-ring B, spring-rod C, and the expanding-rod D. The carrier A has a body A′, provided with the opening $A^2$ to receive the packing devices, and on opposite sides of the body A′, I secure the plates $A^3$, which project at $A^4$ to overlie partially the opening $A^2$ in the body A′ of the carrier, and so form an annular keeper-recess in which to retain the packing devices, which will be presently described. I also provide at one side $a^2$ of the opening $A^2$ an extension which leads out to the edge of the body A′, affording space for the operation of the inner end of the expanding-rod and the free end of the spring-ring C, as best shown in Fig. 1. The keeper-plates $A^3$ brace the body A′ across the opening $a^2$, such opening or extension $a^2$ being closed at its outer side by a plate $a^3$, which may be a part of the keeper-plates $A^3$, as will be understood from Figs. 1 and 2 of the drawings. At the base of the recess $a^2$ I provide at E a small body of packing, against which the free end of the spring-rod C and the inner end of the expanding-rod D cushion, and this packing E also extends at *e* to overlap the joint at *b* of the split packing-ring B, as shown in Fig. 1 of the drawings.

The spring-rod C has one end C′ secured to the carrier A preferably by means of screws, which enter the body A′ of the carrier, as will be understood from Fig. 1, and the other end of the rod C at $C^2$ is free and is connected with the inner end of the expanding-rod D preferably by hooking the end *d* of the rod D into engagement with the free end of the spring-ring C, as shown in Fig. 1. The split packing-ring B lies within the spring-ring C and is secured at B′ to such ring preferably by loops of wire or other material, as shown in Figs. 1 and 2. By this means as the spring-ring C is opened it will open the packing-section so the guard can be readily placed on the axle. The expanding-rod D extends outward through a groove at D′ in the edge of the body A′ and is provided at its outer end with a handle-ring $D^2$ or other suitable means by which it can be readily operated to expand the ring C and with it the packing-ring B to facilitate the application of the guard to the axle. It will be understood that the packing may be of felt or other fibrous or suitable material, and I also employ an edging F of packing extending around the outer edge of the carrier over the metal plate provided on the edge of said carrier, as shown in Figs. 1 and 2 of the drawings.

The spring-ring C is shown as formed from a flat bar of metal whose end at $C^3$ is flattened and inserted edgewise in a slotted recess in the wall of the opening $A^2$ of the body A′, as shown in Fig. 4, this construction aiding in applying the ring C to the carrier and preventing a twisting of said ring at its fixed end.

The packing F around the edge of the carrier will prevent dust and other foreign matter from going down between the guard and journal-box and keep the oil from splashing out.

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

1. The improvement in dust-guards herein described, comprising the carrier composed of the body having an opening for the packing devices and a lateral extension or recess $a^2$ leading from such opening, the keeper-plates secured to the body and partially overlapping the opening therein, the spring-ring secured

at one end within the said opening and having its other end free and operating in the recess $a^2$, the split packing-ring secured to and within the spring-ring, the expanding-rod secured at its inner end to the free end of the spring-ring, and the packing secured in the base of the recess $a^2$, and arranged to form a cushion for the free end of the spring-ring and having an extension lapping the joint of the split packing-ring, substantially as set forth.

2. A dust-guard comprising the carrier, the split packing-ring, the spring-ring extending around and secured to the packing-ring, said spring-ring being secured at one end to the carrier and having its other end free, and the expanding-rod connected with the free end of the spring-ring, substantially as set forth.

3. The combination of the carrier having an opening for the packing devices, the packing-ring in said opening, the spring-ring secured to the packing-ring, means securing one end of the spring-ring to the carrier, the other end of the ring being free and means for operating upon the free end of the spring-ring, whereby the same may be operated to expand the packing-ring, substantially as set forth.

4. The combination in a dust-guard of the carrier-body having an opening for the packing-ring and a lateral recess leading therefrom, the packing-ring, and the spring-ring secured to the packing-ring and held at one end to the carrier and having its other or free end operating in the lateral recess, substantially as set forth.

5. The combination substantially as described with the carrier having its body portion provided with an opening for the packing-ring and having a lateral recess extending therefrom, the edge plate secured to the body and extending over said recess, the spring-ring secured at one end to the carrier and having its other end free and operating in the said lateral recess, the expanding-rod connected with the free end of the spring-ring and the packing-ring secured to the spring-ring, substantially as set forth.

6. The combination of the split packing-ring and the spring-ring secured thereto, and free at one end, the expanding-rod connected with the free end of the spring-ring, and a carrier for the spring-ring, substantially as set forth.

7. The combination in a dust-guard, of the carrier, a split packing-ring therein, means for expanding the split ring, and a packing portion lapping the joint of the packing-ring, substantially as set forth.

8. The combination in a dust-guard of the carrier, the split packing-ring, the spring-ring secured at one end to the carrier and free at its other end, the expanding-rod guided in the carrier and movable in a direction to open the spring-ring, a stop to limit the closing movement of the spring-ring, and the packing carried by the spring-ring, substantially as set forth.

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