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WILLIAM T. DOLE.

Improvement in Carriage Hubs.

No. 121,857.

Patented Dec. 12, 1871.

Fig. 1.

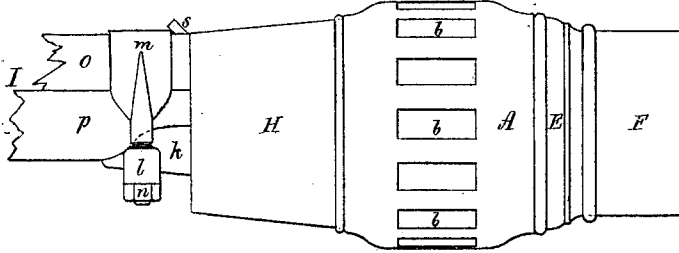


Fig. 2.

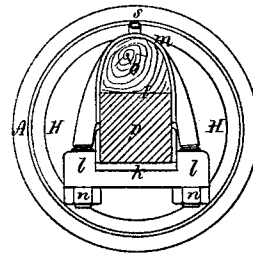


Fig. 3.

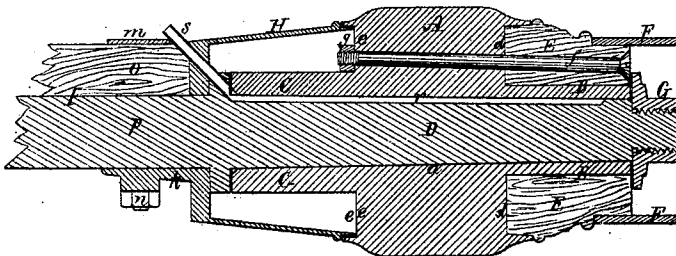
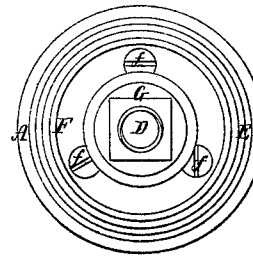


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM T. DOLE, OF PEABODY, MASSACHUSETTS.

IMPROVEMENT IN CARRIAGE-HUBS.

Specification forming part of Letters Patent No. 121,857, dated December 12, 1871.

To all whom it may concern:

Be it known that I, WILLIAM T. DOLE, of Peabody, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Carriage-Wheels and Axles; and do hereby declare the same to be fully described in this, my specification, and represented in the accompanying drawing making part thereof, of which—

Figure 1 is a side view, Fig. 2 a rear end view, Fig. 3 a longitudinal section, and Fig. 4 a front end view of a carriage-wheel, hub, and axle provided with my invention.

In carrying out one part of my said invention, I construct that part of the hub designed to support the spokes and the journals of the axle as a cylindrical spoke-carrier, A, and two tubular projections, B C, extended in opposite directions from the ends of such carrier, there being a common passage, *a*, going through the whole to receive the journal D, and constitute a bearing therefor. These parts A B C are to be cast or founded together of metal in one piece, the middle one being mortised radially, as shown at *b b*, to receive the spokes. The said part A or spoke-carrier is chambered or recessed at each of its ends and about the parts B C, as shown at *d e*. One of these chambers (viz., that marked *d*) is for the reception of a wooden collar, E, which is fitted concentrically upon the projection B and driven closely into the chamber *d*, and is confined to the spoke-carrier by a series of screw-bolts, *f*, going through the two, and by nuts *g* screwed upon such bolts, the said nuts being arranged in the opposite chamber *e*. The wooden collar serves to make a finish to the hub and to support the guard-ring F of the nut G, which holds the wheel-hub on the journal of the axle. To the said axle there is fixed a dust-guard, H, which is a hollow conic frustum, having its open end extended into the chamber *e* and fitted closely thereto. This guard is to protect the journal and its bearing from dust or sand, and it encompasses the axle at the base of the journal, and is provided with a socketed projection, *k*. This projection extends rearward from the end of the guard and underneath and against the axle I and up each

of its sides a short distance, and is formed or provided with a clamp-receiver, *l*, formed and arranged as shown. An arched clamp, *m*, going around the axle and through the clamp-receiver, and having nuts *n n* screwed on it, as shown, serves not only to confine the wood portion *o* of the axle to the metallic part *p* thereof, but to hold the dust-guard firmly in place on the axle. The journal has a groove, *r*, formed lengthwise in it along its upper edge, there being from the rear end of such channel an induct or tube, *s*, arranged in the axle and at an obtuse angle of about one hundred and thirty-five degrees with its oil-groove, as shown.

By having the induct inclined to the groove in manner as shown a flexible or elastic wire can readily be introduced into the induct and groove and pushed throughout the latter, so as to clear it out preparatory to oil being introduced into it through the induct. This little improvement in the arrangement of the induct is one of great utility and advantage, as it enables a person to be certain that the oil after being introduced by the induct will freely flow into and throughout the groove of the journal.

I claim as my invention the following—that is to say:

1. The metallic cap F, the wooden cap-holder E, the screw-bolts and nuts *f g*, and the metallic spoke-carrier A with its projections B C and chambers *d e*, all arranged essentially as set forth.
2. The arrangement of the dust-guard H (fastened to the axle) with the parts A and C of the hub, in manner as shown and described, so as to form, in appearance, part of the hub.
3. The arrangement of the induct *s* and groove *r* with the wheel-journal and the dust-guard H, in manner as shown.
4. The dust-guard H, constructed as described, viz., the hollow frustum H, the socketed projection *k*, and the clamp-receiver *l*, arranged as set forth.

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Witnesses:

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