(No Model.)

E. PECKHAM & E. LAASS.

CAR WHEEL.

No. 354,214. Patented Dec. 14, 1886.

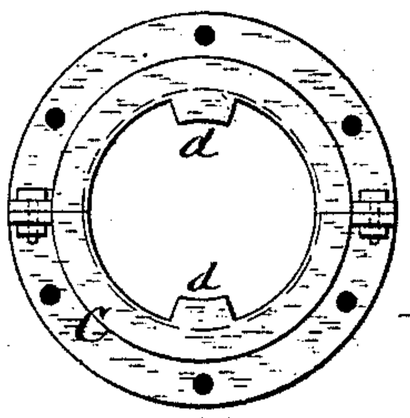

Fig. 4

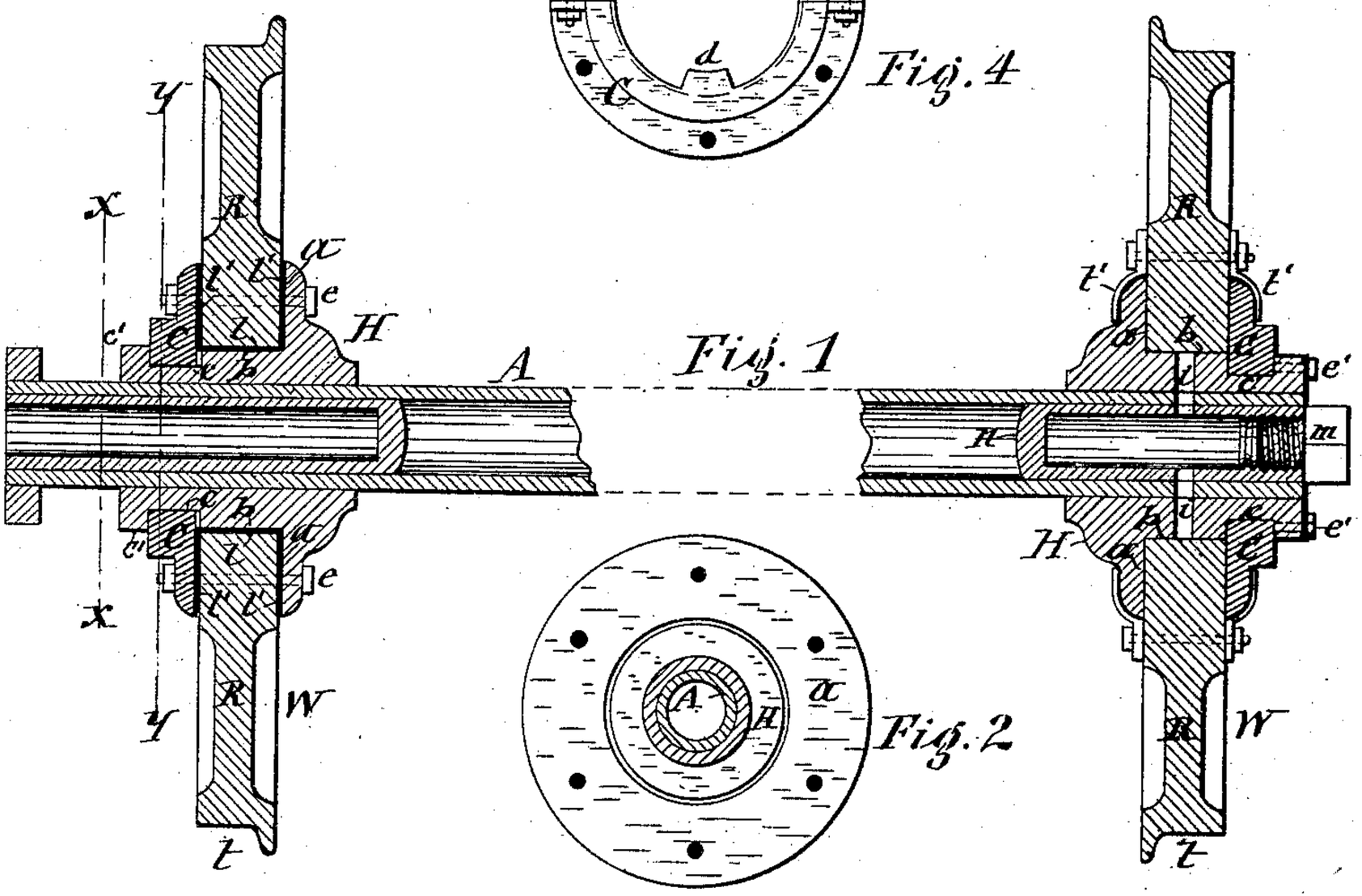

Fig. 1

Fig. 2

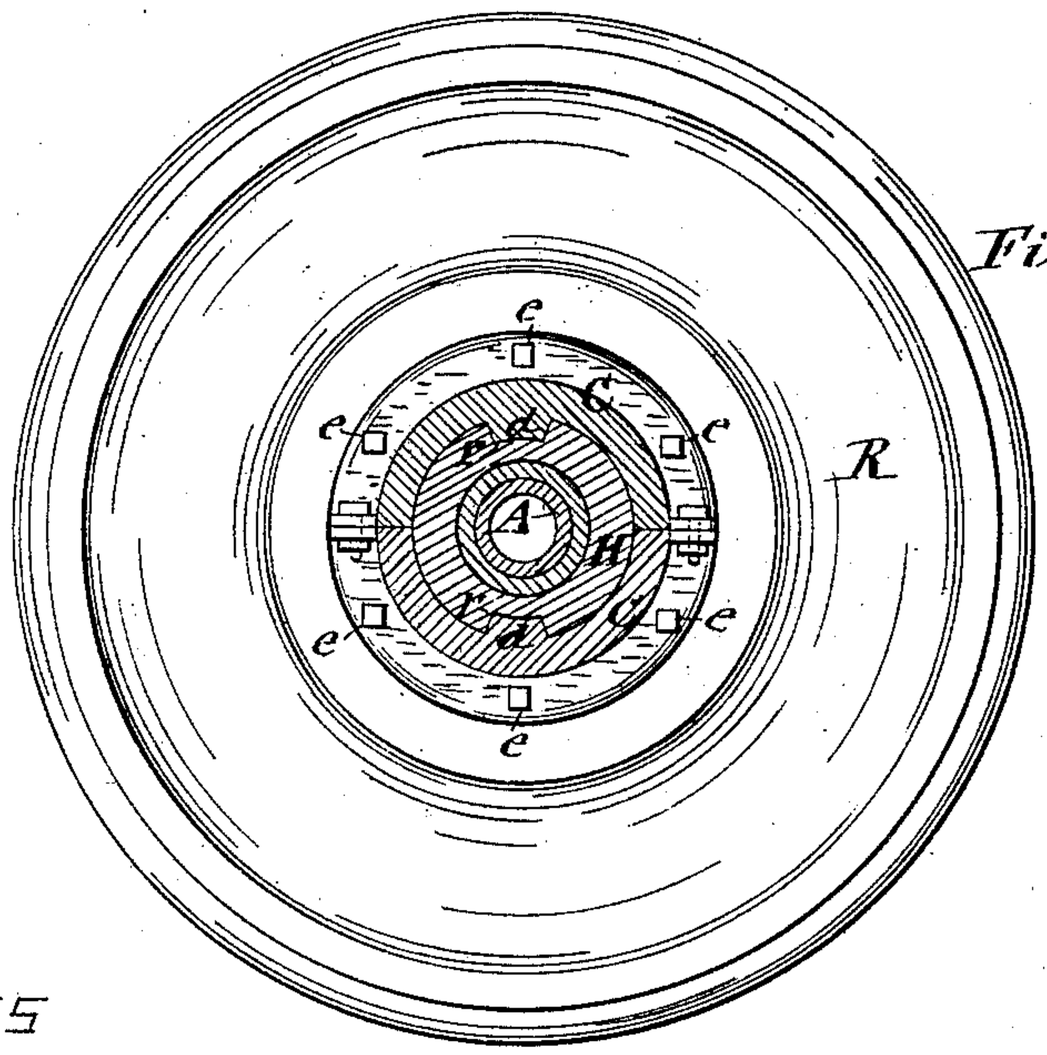

Fig. 3

WITNESSES

C. Bendixon

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INVENTORS:

Edgar Peckham

and Emil Laass

per Church, Laass & Hoyt

their Attys

UNITED STATES PATENT OFFICE.

EDGAR PECKHAM AND EMIL LAASS, OF SYRACUSE, NEW YORK, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO M. J. PECKHAM, OF SAME PLACE.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 354,214, dated December 14, 1886.

Application filed March 25, 1886. Serial No. 196,490. (No model.)

To all whom it may concern:

Be it known that we, EDGAR PECKHAM and EMIL LAASS, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Car-Wheels, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in a novel construction of a wheel which is perfectly secure and capable of resisting the strain it is subjected to when in use, and yet adapted to be readily taken apart for repairs or renewal of its parts.

In the accompanying drawings, Figure 1 is a longitudinal section of a car-axle provided with our improved wheels. Fig. 2 is a transverse section on line *x x*, Fig. 1, with the detachable parts of the wheel removed. Fig. 3 is a transverse section on line *y y*, Fig. 1; and Fig. 4 is a detached face view of the collar, which retains the tread-ring on the hub of the wheel.

Similar letters of reference indicate corresponding parts.

A represents a car-axle, which may be either tubular, as shown in the annexed drawings, or of the usual solid form.

W W denote the two car-wheels embodying our invention, the most essential feature of which consists of the hub H and the tread-ring R, detachably connected to said hub. The hub H is designed to be permanently secured to the axle, and this may be effected either by shrinking it thereon or pressing it on in the same manner as car-wheels are commonly fixed to the axle. We form this hub with a circumferential rabbet, one of the faces of which is parallel with the axis of the hub, and serves as a seat, *b*, for the ring R, which is provided with a central eye, by which it rests on said seat, the outer periphery of said ring being formed with the usual flanged tread, *t*. The other face of the aforesaid rabbet of the hub stands vertical or radial from the axis of the hub, and serves as an abutment, *a*, against which the rear side of the ring R rests. At the front or outer edge of the seat *b* the hub H is provided with a circumferential groove, *c*, and with recesses *r r* in said groove. The end portion of the hub at the outside of the groove *c* is provided with a collar, *c'*, which is of a diameter to allow the central eye of the tread-ring R to slip over it in placing said ring on the hub or removing it therefrom.

In the groove *c* is seated removably the collar C, which is provided with a central eye fitted closely to the interior of said groove and provided with projections *d d*, which enter the recesses *r r*, and thus prevent said collar from turning.

It will be observed that the collar *c'* constitutes an abutment at the outer end of the hub, and the ring R and collar C are clamped between the two abutments *c'* and *a* on opposite ends of the hub, and are thus securely held in their proper position.

In order to permit of applying the collar to the hub and of removing it therefrom when required, we divide said collar diametrically into two parts and detachably clamp the same together, as shown in Figs. 3 and 4 of the drawings.

By means of bolts *e e*, passing through the collar C, ring R, and abutment *a*, the collar is clamped tightly against the side of the ring R and the latter is firmly secured on the hub.

When it is desired to allow the two wheels W W to rotate independently of each other, we omit the bolts *e e*, and thus allow the tread-ring R to rotate on the hub H. In this case we employ set-screws *e' e'*, inserted through the outer end of the hub and bearing with their inner ends on the collar C, as represented at the right-hand end of the axle, (shown in Fig. 1 of the drawings,) and this wheel can be made self-lubricating by employing a tubular axle and securing a dam, *n*, across the interior of the tube, at or near the inner end of the hub, and closing the end of the tube by a screw-threaded plug, *m*, so as to form a lubricant-reservoir similar to that shown in the patent issued to E. Peckham, March 10, 1885. Channels *i*, extending from the lubricant-reservoir to the seat *b* of the ring R, allow the lubricant to flow to said seat. By clamping on opposite sides of the ring R shields *t' t'*, lapping onto

the exterior of the abutment *a* and collar C, dust is excluded from the bearings of the said ring on the hub.

It is obvious that this invention is applicable to wheels of ordinary road-wagons, and we therefore do not limit the use of our invention to car-wheels.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the hub H, formed with the seat *b*, abutment *a* at the inner end of the hub, and the groove *c* and the collar *c'* at the outer end of the hub, the ring R, mounted on said seat, and the collar C, secured in the groove *c*, and bolts for tightening the collar C on the ring R, substantially as described and shown.

2. The combination of the hub H, formed with the seat *b*, abutment *a*, groove *c*, recess *r r* in said groove, and the collar *c'* at the outer end of the hub, the tread-ring R, mounted on said seat, the collar C, seated in the groove *c*, and provided with the projections *d d*, and bolts for tightening the collar C on the ring R, substantially as described and shown.

3. In combination with the tubular axle formed with an internal lubricant-reservoir, and provided with lubricating-channels *i*, the hub H, provided with corresponding channels, *i*, and formed with the seat *b* and abutment *a*, the ring R, mounted on said seat, and the collar C, clamped on the side of the said ring, substantially as described and shown.

4. In combination with the tubular axle formed with an internal lubricant-reservoir and provided with lubricating-channels *i*, the hub H, provided with corresponding channels, and formed with the seat *b*, abutment *a*, groove *c*, and collar *c'*, the ring R, mounted on said seat, the collar C, secured in the groove *c*, and the shields *t' t'*, secured to opposite sides of the ring R and lapping onto the abutment *a* and collar C, substantially as described and shown.

In testimony whereof we have hereunto signed our names and affixed our seals, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 18th day of March, 1886.

EDGAR PECKHAM. [L. S.]
EMIL LAASS. [L. S.]

Witnesses:
FREDERICK H. GIBBS,
C. BENDIXON.