

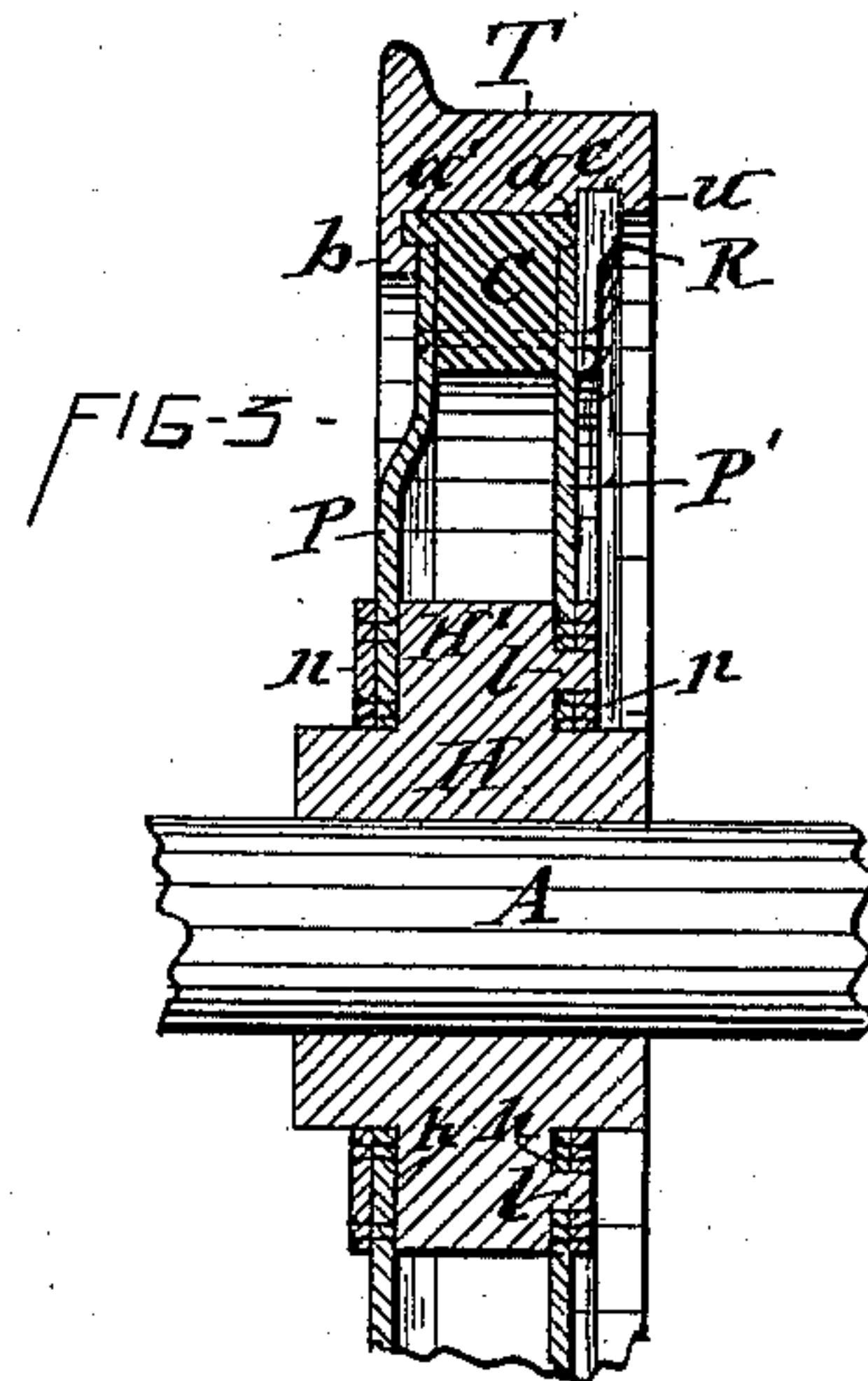
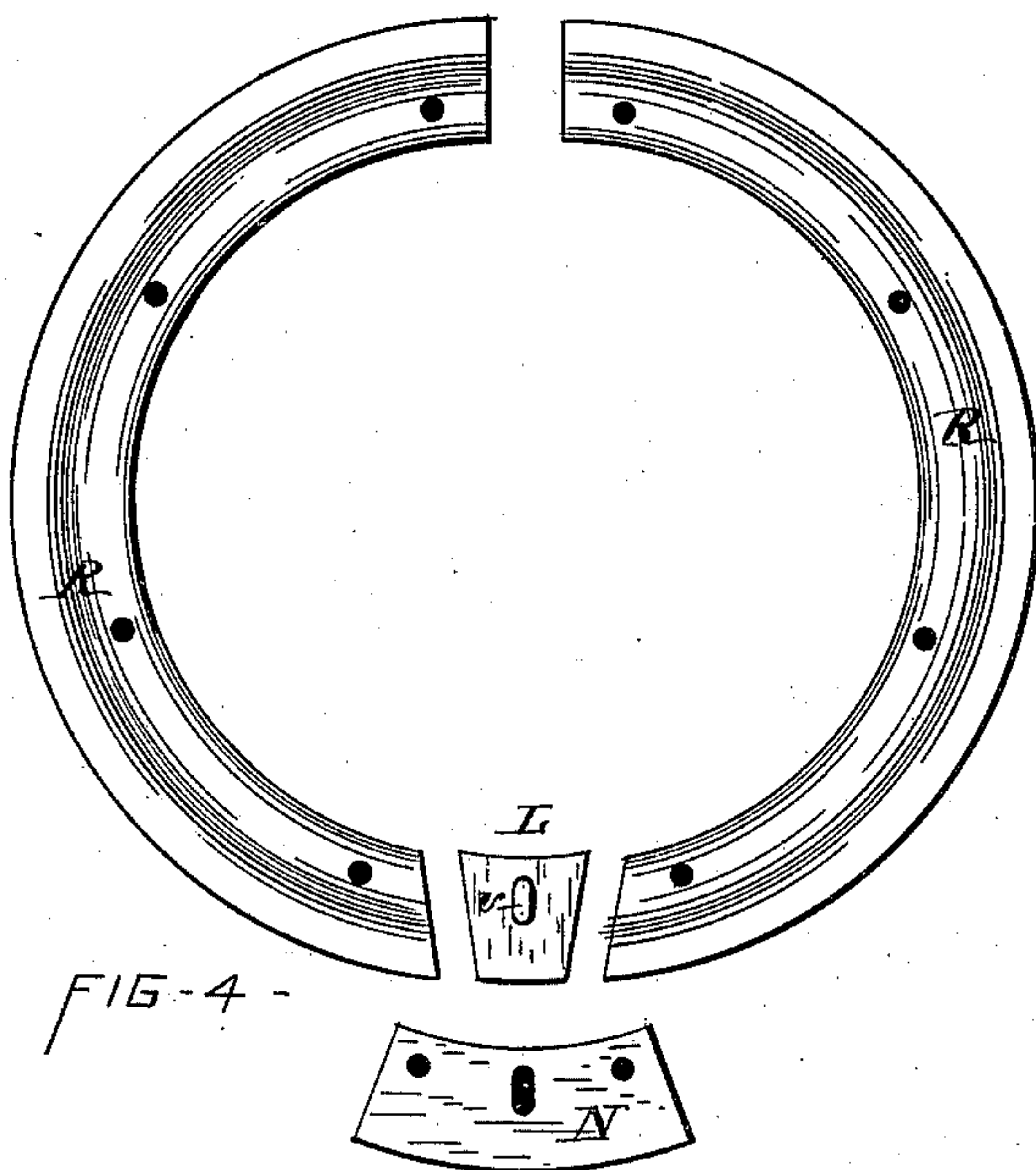
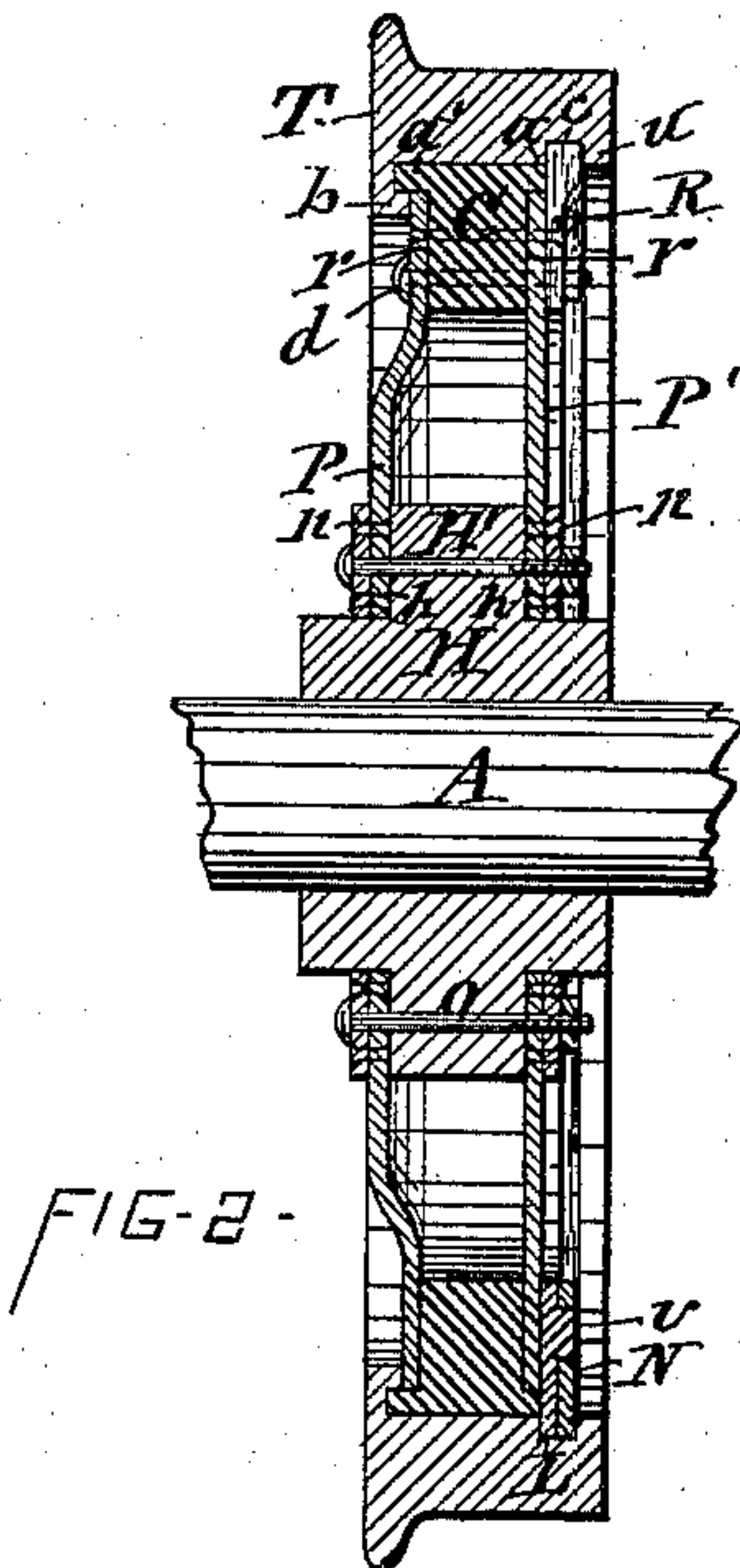
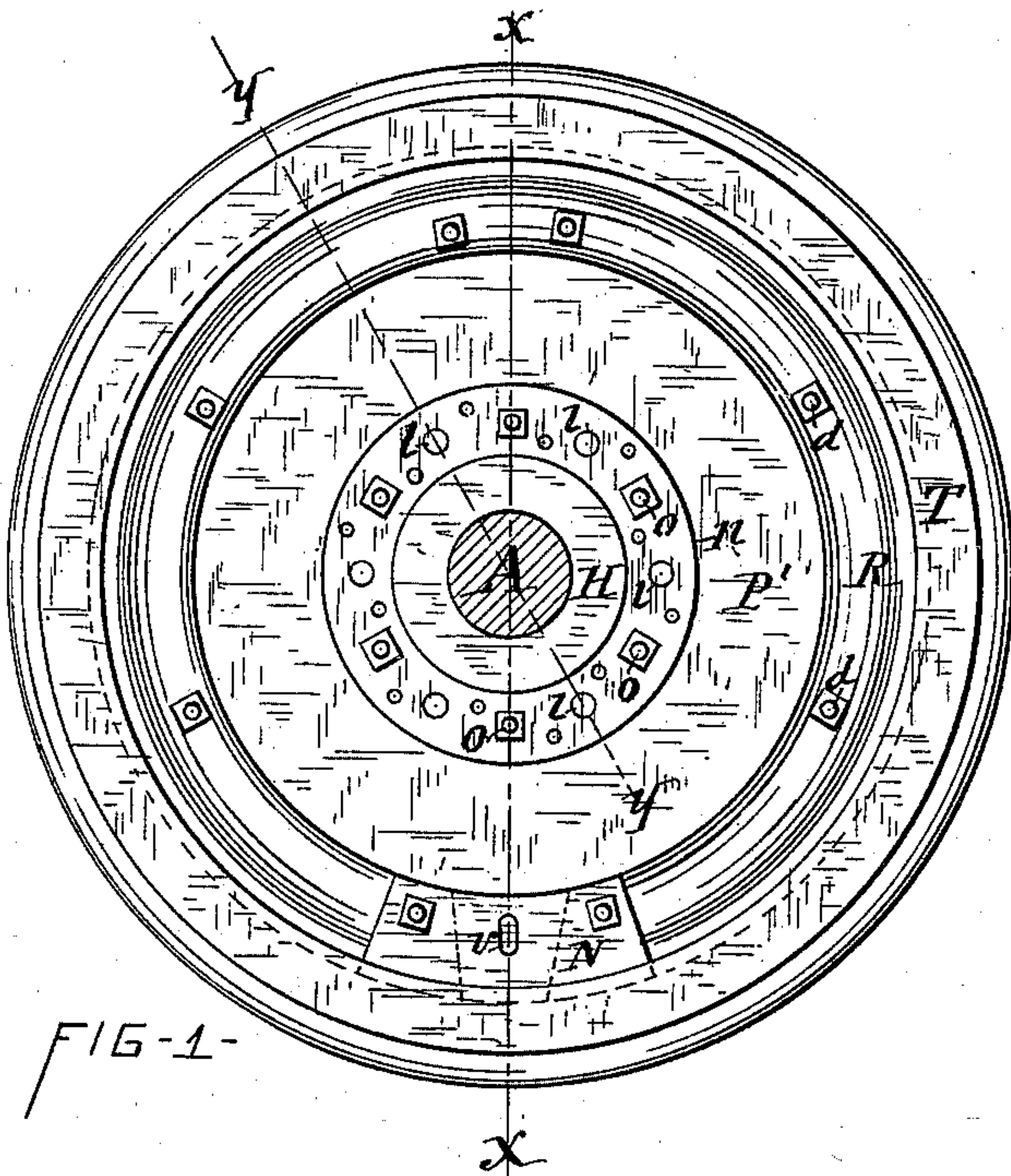
(No Model.)

E. PECKHAM.

CAR WHEEL.

No. 366,179.

Patented July 5, 1887.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF SYRACUSE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PECKHAM CAR WHEEL COMPANY, OF NEW YORK.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 366,179, dated July 5, 1887.

Application filed August 2, 1886. Serial No. 209,759. (No model.)

To all whom it may concern:

Be it known that I, EDGAR PECKHAM, 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 relates to the class of car-wheels which have an elastic body formed of steel plates, and a tire secured to said body.

The invention consists in an improved construction and combination of the constituent parts of the wheel, as hereinafter fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a side elevation of my improved car-wheel. Fig. 2 is a transverse section of the same on line *x x*, Fig. 1. Fig. 3 is a transverse section on line *y y*, Fig. 1; and Fig. 4 is a detached plan view of the tire-retaining ring and its clamp.

Similar letters of reference indicate corresponding parts.

A denotes the car-axle.

H is the wheel-hub, which is formed with a circumferential enlargement, H', presenting by its opposite sides two annular shoulders, *h h*. Against the shoulders are secured two annular steel plates, P P', which, together with the separate outer ring, C, constitute the body of the wheel. The aforesaid plates are secured to the shoulders *h h* by means of bolts *o o*, passing through the plates and intervening enlarged portion H' of the hub, as shown in Fig. 2 of the drawings. In order to relieve said bolts from shearing strain, I form the hub with lugs *l l*, projecting from one or both of the shoulders *h h*, and entering corresponding perforations in the adjacent plate or plates, as illustrated in Fig. 3 of the drawings. To the outer side of the plates P P', adjacent to the eye by which they rest upon the hub, I secure collars *n n*, which also rest on the hub, and thus afford additional support to the plates P P' on the hub. The outer ring, C, I provide on its opposite sides with rabbets *r r*, extending to the inner periphery of the ring and leaving laterally-projecting shoulders or flanges *a a'* around the outer periphery of the ring. Said ring is inserted between the outer peripheral portions of the plates P P', which latter lie

in the rabbets *r r* and abut against the shoulders or flanges *a a'*, and are secured to the aforesaid ring by bolts *d d*, passing through the plates and intervening ring. The abutment of the plates against the flanges *a a'* serves to relieve the bolts from shearing strain in the direction toward the center of the wheel. In order to thoroughly brace the described body of the wheel, I form the inner plate, P, dishing or bulging inward or from the other plate, P', and thus enlarge the distance between the bearings of the two plates on the hub, and incline the inner plate, P, from the hub outward to the periphery of said plate, as shown in Figs. 2 and 3 of the drawings.

T denotes the tire, which I form with an undercut or dovetailed inward-projecting flange, *b*, on one side of the inner peripheral face, the main or central portion of which is maintained flush with the outer peripheral face of the ring C. The laterally-projecting flange *a'* of the ring C projects outward sufficiently to enter and interlock with the flange *b*, and thus the tire is locked on the body of the wheel, so as to prevent its leaving the wheel in case the tire breaks transversely. At the same time the flange *b* bears on the outside of the peripheral portion of the plate P, and thus sustains the edge thereof which abuts against the flange *a'*. The tire is retained in its aforesaid locked position by the retaining-ring R, which is seated in a circumferential groove, *c*, in the inner peripheral face of the tire adjacent to the side of the ring R, opposite the interlocked side thereof. Said groove leaves a circumferential shoulder, *u*, around the edge of the tire, and this shoulder affords a secure hold for the retaining-ring R. It will be observed that by this construction the tire is most securely confined on the body of the wheel by shoulders which are integral with the tire, and against which the body abuts at opposite sides. Furthermore, the ring C, with its flanges *a a'*, forms a broad bearing for the tire on the body of the wheel.

In order to permit the retaining-ring R to be inserted in the groove *c*, I divide said ring transversely into two sections, somewhat smaller than a semicircle, and insert between one of the joints thereof a key, L, which is provided with a lug, *v*, on its outer side; and over

said key I place a clamping-plate, N, which is provided with an eye for the reception of the lug *v*, and laps with its ends onto the ends of the ring-sections, as illustrated in Fig. 1 of the drawings. The ring with its key and clamp are retained in position by the bolts *d d* passing through them.

I do not claim, broadly, a car-wheel composed of a central body, a tire formed on its inner peripheral face, with shoulders or flanges at opposite sides of the aforesaid body, and a retaining-ring inserted between one of said shoulders and adjacent side of the body. Such a combination of parts is shown in other applications for patents filed by me, respectively, August 2, 1886, and August 4, 1886, Serial Nos. 209,758 and 209,742.

What I claim as new, and desire to secure by Letters Patent, is—

1. A car-wheel body composed of a hub having a circumferential projection, outer ring separate and distinct from the tire of approximately the same width as the aforesaid projection, and plates secured to opposite sides of said projection and ring.

2. In a car-wheel, the wheel-body composed of a hub having a circumferential projection, a continuous outer ring, and plates secured directly to opposite sides of the aforesaid hub-projection and outer ring, in combination with a tire having its inner periphery flush with the outer periphery of the aforesaid ring and seated directly upon the same, as set forth and shown.

3. In a car-wheel, the wheel-body composed of a hub, an outer ring, plates secured to the hub and to opposite sides of the aforesaid ring, and a laterally-projecting flange on the periphery of said body, in combination with a tire seated on the aforesaid ring and having an undercut flange interlocking with the aforesaid flange of the body.

4. In combination with the ring C, provided with the flange A', the tire T, provided with the undercut flange *b*, interlocking with the

flange A', and the plate P, entering between the flange *b* and ring C, substantially as described and shown.

5. In a car-wheel, the combination of a hub provided with two circumferential shoulders, an outer ring formed with circumferential rabbets in opposite sides and extending to the inner periphery of said ring, plates secured to the aforesaid shoulders of the hub and in the rabbets of the outer ring, and a tire secured to the exterior of said ring, as described and shown.

6. The combination of the hub H, provided with the shoulders *h h*, the ring *c*, provided with rabbets *r r* and flanges *a a'*, the plates P P', secured to the shoulders *h h* and rabbets *r r*, and abutting with their ends against the hub and against the flanges *a a'*, the tire T, formed with the undercut flange *b*, interlocking with the flange *a'* and provided with the groove C, the retaining-ring R, seated in said grooves, and bolts *d d*, passing through the ring R, plates P P', and intervening ring C, substantially as described and shown.

7. The combination, with the hub H, provided with the shoulders *h h*, and the plates P P' on said shoulders, of the collars N N, secured to the sides of the plates and resting on the hub, and the bolts O O, securing the plates to the hub, substantially as described and shown.

8. The combination of the hub H, provided with shoulders *h h* and with lugs *l l*, and the plate provided with perforations for the reception of the lugs, substantially as described and shown, for the purpose set forth.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 31st day of July, 1886.

EDGAR PECKHAM. [L. S.]

Witnesses:

C. H. DUELL,
C. BENDIXON.