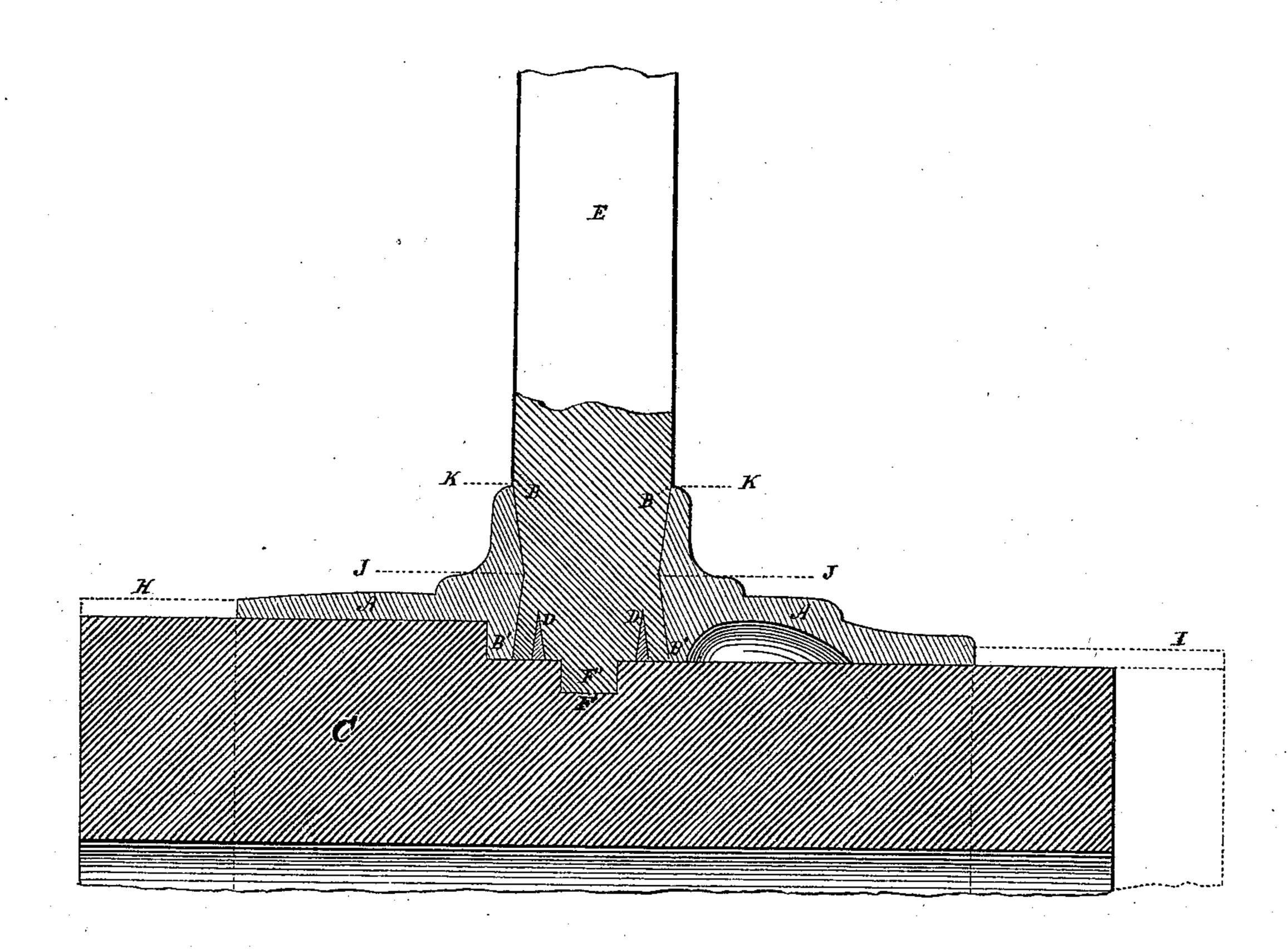
## C. W. SALADEE.

Vehicle-Hubs.

No.148,507.

Patented March 10, 1874.



WITNESSES

Herm. Lauten. H. C. Ellert INVENTOR.

Cyrus W. Faladee

## UNITED STATES PATENT OFFICE.

CYRUS W. SALADEE, OF PITTSBURG, PENNSYLVANIA.

## IMPROVEMENT IN VEHICLE-HUBS.

Specification forming part of Letters Patent No. 148,507, dated March 10, 1874; application filed February 6, 1874.

CASE A.

To all whom it may concern:

Be it known that I, CYRUS W. SALADEE, of Pittsburg, in the State of Pennsylvania, have invented a new and useful Improvement in Wheels for Vehicles, of which the following is a specification, embodying my invention.

My present invention has for its object the construction of a light and strong wheel embracing all of the advantages resulting from the known combination of wooden and metallic hub, without any of the defects attending a hub composed wholly of wood or of metal; and I will here state that I am aware of the fact that hubs consisting of such combination of wood and metal are not new, and to which, in a broad sense, I lay no claim, that being no part of my invention. I am also aware that carriage-wheels are constructed with a mortised metallic annulus, provided with a central wooden nave having a groove with inclined sides, in which to dovetail the ends of the spokes by means of wedges; as also a wood nave having mortises in which to receive the ends of the spokes, after passing through the mortised metallic annulus—all and any of which devices I disclaim as any part of my invention.

The accompanying drawing is a sectional view of the mortised metallic annulus through the longitudinal axis of the hub, bisecting the spokes, and, referring to which—

A is the mortised metallic annulus, forming, in part or in whole, the outside shell of the hub. The shell or annulus A consists of two flanged collars, B and B, B' and B', which extend above and below the body of the annulus or shell A, and are connected by partitions of metal shown in dotted lines K, the inside walls of which are slightly converged above and below the crosscenter line J, so that the shank of the spokes E are correspondingly tapered to firmly wedge them between the flanges B and B above the cross-center line J, when driven home. C is a central nave of wood, in which, for the reception of the spokes E, is cut a narrow groove, F—say one-half inch wide and one-fourth inch

deep. On the ends of the spokes is cut a short tenon, F', corresponding to and closely-fitting in this groove. The object of this narrow groove F and tenons F' is to prevent the possibility of the wooden nave working out of its metallic shell, as well as to assist in the lateral support of the spokes. The spokes below the crosscenter line J are spread in the shoulders on each side of the tenon F' by means of wedges D D, so as to firmly wedge the spokes against the diverging sides of the lower flange B' and B'. The bases of the wedges rest on the surface of the wooden nave on each side of the groove F before the spokes are driven home, and as they are driven the wedges are forced into the slits which have been sawed into the shoulders of the spokes, spreading their ends so as to firmly wedge the spoke between the lower half D' of the walls in the mortised metallic annulus, as aforesaid, and as clearly shown in the drawing.

It will now be seen that the spoke is so firmly wedged between the flanges B and B', above and below the cross-center line J, as to prevent the possibility of its being moved farther in or out of its position—in fact, making a perfect dovetail of the spoke between the flanges.

The shell A may be extended so as to form the hub-bands H and I, seen in dotted lines, if desired, but I prefer it to extend no farther over the length of the hub than to form the shoulders for the bands to rest against.

I claim as my invention—

1. The mortised metallic annulus A, having flanges B B and B' B', with slightly-diverging sides above and below the cross-center line J, substantially as and for the purpose set forth.

2. The combination of the mortised metallic annulus A, wooden nave C having groove F, wedges D, and spoke E having tenon F', substantially as and for the purpose set forth.

CYRUS W. SALADEE.

Witnesses:

CHARLES W. SALADEE, G. B. SALADEE.