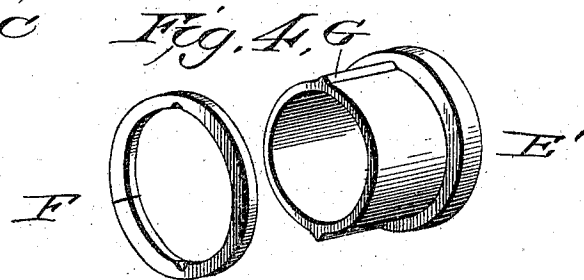
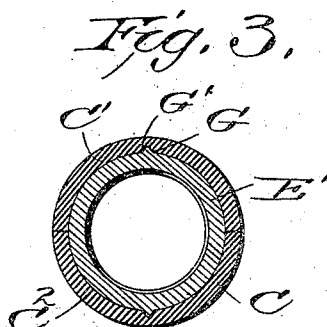
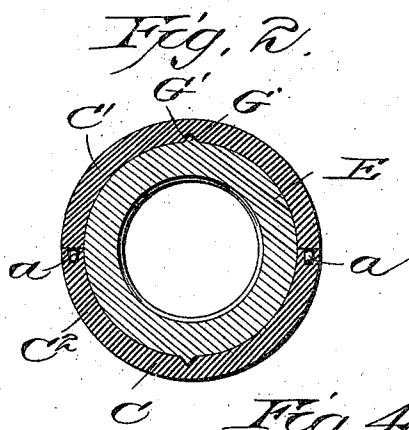
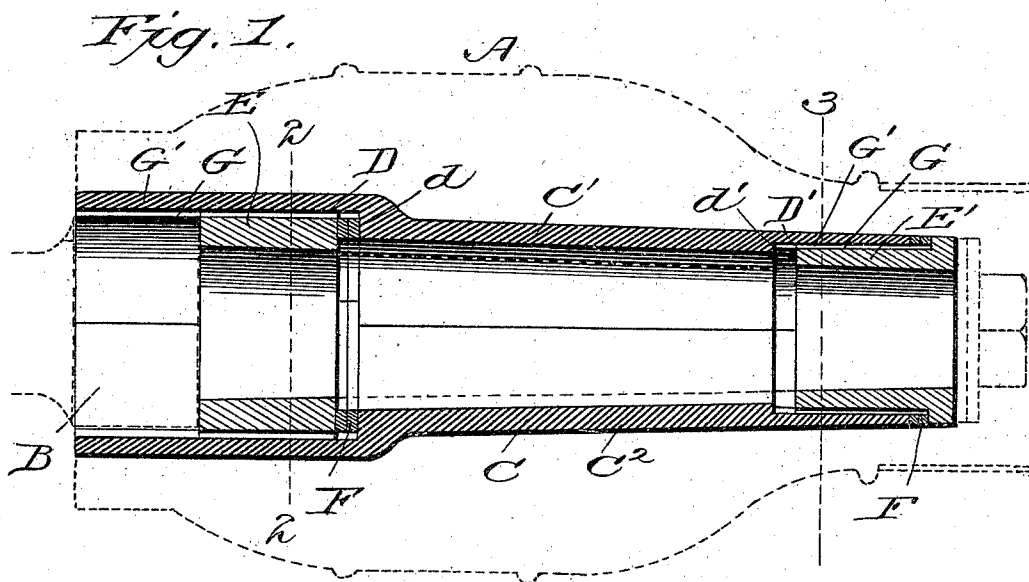


(No Model)

C. S. FELUMLEE & R. M. FINK.
VEHICLE AXLE BOX.

No. 584,680.

Patented June 15, 1897.



Witnesses
Wm. F. Shelden
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UNITED STATES PATENT OFFICE.

CORNELIUS S. FELUMLEE, OF NASHPORT, AND RODOLPHUS M. FINK, OF
IRVILLE, OHIO.

VEHICLE-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 584,680, dated June 15, 1897.

Application filed September 5, 1896. Serial No. 604,927. (No model.)

To all whom it may concern:

Be it known that we, CORNELIUS S. FELUMLEE, residing at Nashport, and RODOLPHUS M. FINK, residing at Irville, in the county of Muskingum and State of Ohio, citizens of the United States, have invented certain new and useful Improvements in Extension-Bearing Boxings for Vehicle-Axles; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in adjustable or extension bearings for use in connection with vehicle-axles; and the invention has for its object the provision of a sectional boxing the parts of which are adapted to be readily separated and replaced at will.

The invention has for a further and more immediate object the provision, in connection with a sectional and separable boxing, of brass or other soft-metal bearing-blocks which are adapted to be adjusted and securely locked in their adjusted positions within the boxing, the locking means being of such a character as to admit of the ready removal or replacing of the bearing-blocks. The bearing-blocks being placed at opposite ends of the boxing and affording bearing-points for the axle-spindle at these points only, the friction of the parts will be greatly reduced, thus rendering the draft of the vehicle much less than in constructions in which the spindle has a bearing throughout its entire length, as has heretofore been common. The bearing-blocks being of a metal softer than that of which the spindle is constructed, there will be but little wear of the spindle, and from lack of friction the binding of the parts from heating will be avoided, while the space within the boxing intermediate of the bearing-blocks will serve to receive sediment which may collect within the boxing.

To these ends and to such others as the invention may pertain the same consists in the novel construction and in the peculiar combination; arrangement, and adaptation of

parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a longitudinal central section through a vehicle-hub and axle-spindle, showing our invention applied. Fig. 2 is a transverse section upon the line 2 2 of Fig. 1. Fig. 3 is a like view upon line 3 3 of said Fig. 1. Fig. 4 is a perspective view of one of the bearings.

Reference now being had to the details of the drawings by letter, A represents a wagon-wheel hub of ordinary form of construction, and B an axle-spindle.

C represents our improved form of boxing, which is composed of two sections, it being divided longitudinally into two halves C' and C², the section C' being provided with pins or extensions *a a*, adapted when in engagement with holes provided for their reception in the section C² to hold the sections in proper relation to one another.

The diameter of the opening which passes through the longitudinal center of the boxing is enlarged at the end portions of the boxing, as shown at D and D', thus providing shoulders *d* and *d'*, against which the ends of the bearing boxes or sleeves E and E' bear when in place.

The bearing blocks or collars E and E' are made of brass or other soft metal. These bearings are inserted within the enlarged openings at the ends of the boxing and are adjusted at the desired point by means of washers F F, which are interposed between the inner ends of the bearing blocks or collars and the shoulders *d* and *d'* within the boxing. The collars are held against rotation within the boxing by the engagement of beads G upon the outer faces of the bearing-blocks with recesses G' formed in the boxing.

It will be seen that by the construction above described a simple and inexpensive device is provided whereby the friction and wearing of the parts will be greatly lessened. The bearings being of softer metal than the

spindle there will be but little wear of the spindle, and the bearings being adjustable and also readily removable may be renewed from time to time as occasion may require.

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

The combination with a two-part boxing for use upon vehicle-axle spindles, of adjustable
10 collars or blocks of soft metal seated within enlarged openings in the ends of the boxing, said collars or blocks being provided upon

their outer faces with longitudinal beads adapted to engage corresponding grooves in the chambers within which they are seated, 15 and thus held against rotation within the boxing substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CORNELIUS S. FELUMLEE.
RODOLPHUS M. FINK.

Witnesses:

JOHN B. SHEPPARD,
EARL A. MONTGOMERY.