

No. 731,724.

PATENTED JUNE 23, 1903.

J. C. WANDS.
JOURNAL BRASS AND SADDLE.
APPLICATION FILED SEPT. 22, 1902.

NO MODEL.

Fig. 1.

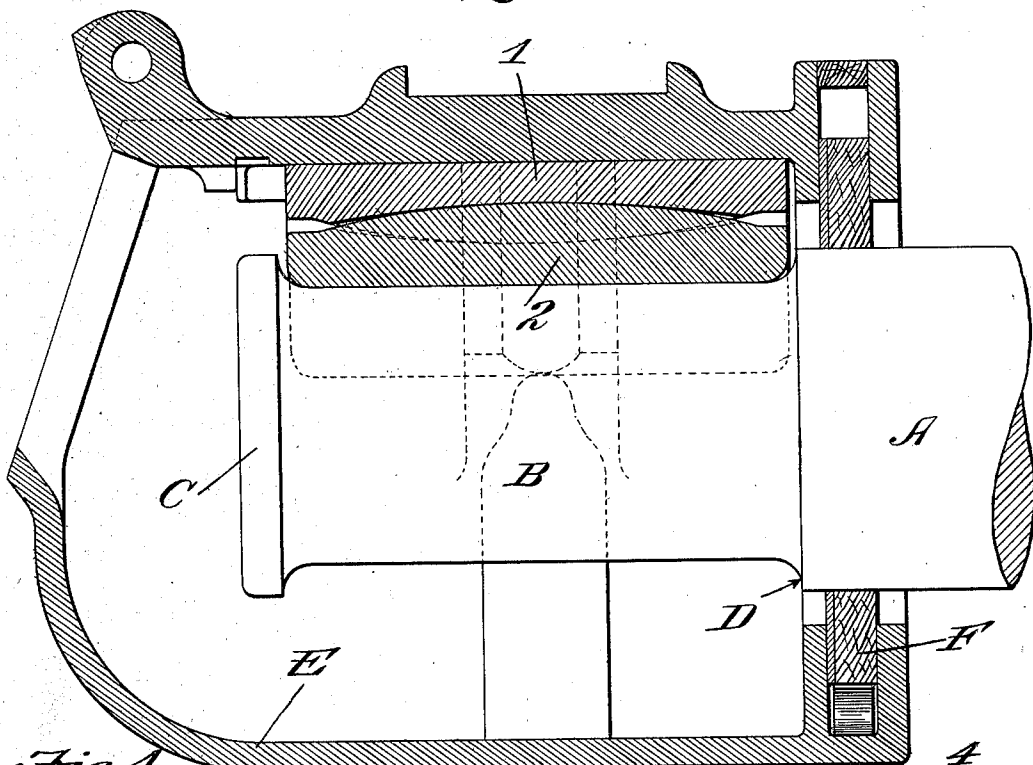
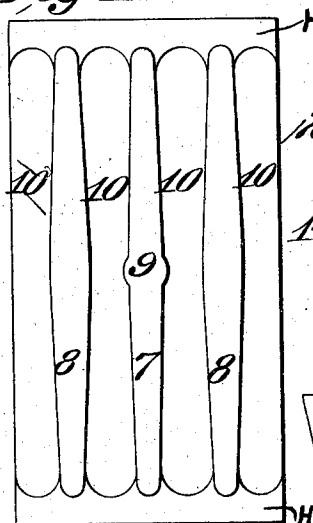


Fig. 4.



Witnesses:
G. A. Pennington
Ralph Halish

Fig. 3.

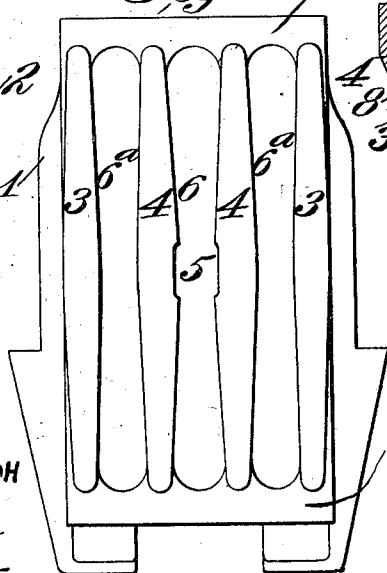
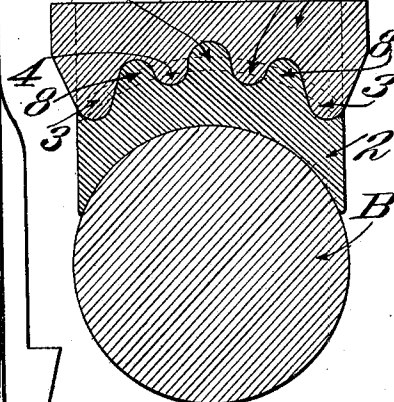


Fig. 2.



Inventor:
John C. Wands,
By Rakewell Cornwall
Attys.

UNITED STATES PATENT OFFICE.

JOHN C. WANDS, OF ST. LOUIS, MISSOURI.

JOURNAL BRASS AND SADDLE.

SPECIFICATION forming part of Letters Patent No. 731,724, dated June 23, 1903.

Application filed September 22, 1902. Serial No. 124,408. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WANDS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Journal Brasses and Saddles, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is a side view of one end of a car-axle with a journal-box thereon provided with my invention shown in section. Fig. 2 is a vertical cross-sectional view of the journal, journal-brass, and its saddle. Fig. 3 is a bottom view of the saddle, and Fig. 4 is a top plan view of the journal-brass.

This invention relates to journal-bearings designed for use in connection with railway-cars; and it consists in certain novel features of detail formation, all as will hereinafter be more fully described, and specifically pointed out in the claims.

Referring to the drawings, A is a car-axle; B, the journal thereof; C, the usual collar at the outer end, and D the shoulder at the opposite end of said journal.

E is a journal-box of conventional design, and F is the dust-guard therefor.

1 is a saddle held within the upper portion of the box, and between said saddle and the journal is a brass 2, bearing against said journal at its upper portion.

Thus far the parts are all arranged as commonly known; but the saddle and journal brass possess peculiarities in the detail formation thereof which I will now proceed to describe.

The saddle 1, sometimes called a "wedge," is cast with alternate elevations and concavities whereby longitudinal corrugations in the surface thereof are produced, which corrugations are deepest at their middle portions or that portion above the middle portion of the length of the journal. As shown, the saddle 1 is provided with the web portion G and the four ribs 3 3 and 4 4, between the latter pair of which is provided the seat 5, there being three depressions 6 and 6^a between said ribs, which form seats for the corrugations of said saddle 1, said seats being deepest about mid-

way their length and quite shallow or rising to zero at their ends. The brass is provided with the web portion H and the three corrugations 7 8 8, the one numbered 7 being in the middle and being provided with a central lateral enlargement 9, adapted to fit in the seat 5 of the saddle, while the recesses 10 are designed to receive therein the curved corrugations 3 and 4 of the saddle, said depressions, like those of the saddle, being deepest about midway their length and rising to zero at their ends near the inner and outer ends thereof.

Upon assembling the parts, as shown in Figs. 1 and 2, it will be noted that the corrugations 7 8 8 will lie, respectively, in the central channel 6 and side channels 6^a of the saddle, while the male stud 9 will coincide with the somewhat-elongated seat 5 of said channel 6, the corrugations 3 4 of the saddle meeting and being held in the channels 10 of the journal-brass. Thus it will be seen that the portion of the brass immediately above the axis of the car-journal is the thickest and presumably the strongest at the immediate portions thereof which will probably receive the greatest stress, the corrugations 7 8 being arched along their upper line, as shown in Fig. 1 and as described. The elongation of the seat 5 permits slight longitudinal shifting of said brass 2 with relation to said saddle, and the peculiar formation of the corrugations of the brass and saddle permits more or less rocking therebetween longitudinally thereof without subjecting any of the parts to undue strain.

It will be noted that the corrugations of both saddle and brass are wider as well as higher at their middle portions than at their ends, thereby leaving the channels wider at the ends, whereby the brass permits a swivel as well as a rocking motion, so as to seat itself on the car-axle and accommodate the various strains incident to such parts; but owing to such corrugations all rolling motion is thoroughly prevented without danger of breakage, the parts which prevent such motion being the thickest and strongest of the structure.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device can be made

and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a journal-bearing, a saddle provided with a plurality of longitudinal ribs, all of said ribs being deepest at their middle portion, and a brass, provided with coincident channels with integral web portions, holding the same in such manner as to permit of movement therebetween laterally at their ends; substantially as described.

2. In a journal-bearing, a brass provided with a plurality of longitudinal bearing-ribs all of which are deeper and wider at their middle portions than at their ends, and a saddle with seats loosely fitting on said ribs; substantially as described.

3. In a journal-bearing, a brass provided with a plurality of longitudinal ribs, said ribs being deeper and wider at their middle portion than at their ends, said ribs being of less length than said brass, and extending parallel with the axis of the journal, and a saddle with channels loosely engaging the ends of said ribs; substantially as described.

4. In a journal-bearing, a brass provided with web portion and a plurality of integral ribs extending longitudinally thereof a por-

tion of its length, said ribs being deepest about midway their length, and a saddle with seats therein permitting a lateral movement of the end portions of said brass and saddle; substantially as described.

5. In a journal-bearing, a brass provided with a corrugation extending longitudinally thereof, a portion of its length, there being a lateral projection on said brass, and a saddle provided with an enlarged recess interlocking with said lateral projection; substantially as described.

6. In a journal-bearing, a brass provided with a plurality of corrugations extending longitudinally thereof, there being a lateral extension on one of said corrugations, and a saddle interlocking with said lateral extension; substantially as described.

7. In a journal-bearing, a brass provided with corrugations deeper and wider at their middle portions than at their ends, and a saddle coöperating therewith provided with channels narrower at their middle portion than at their ends; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 17th day of September, 1902.

JOHN C. WANDS.

Witnesses:

GEORGE BAKEWELL,
G. A. PENNINGTON.