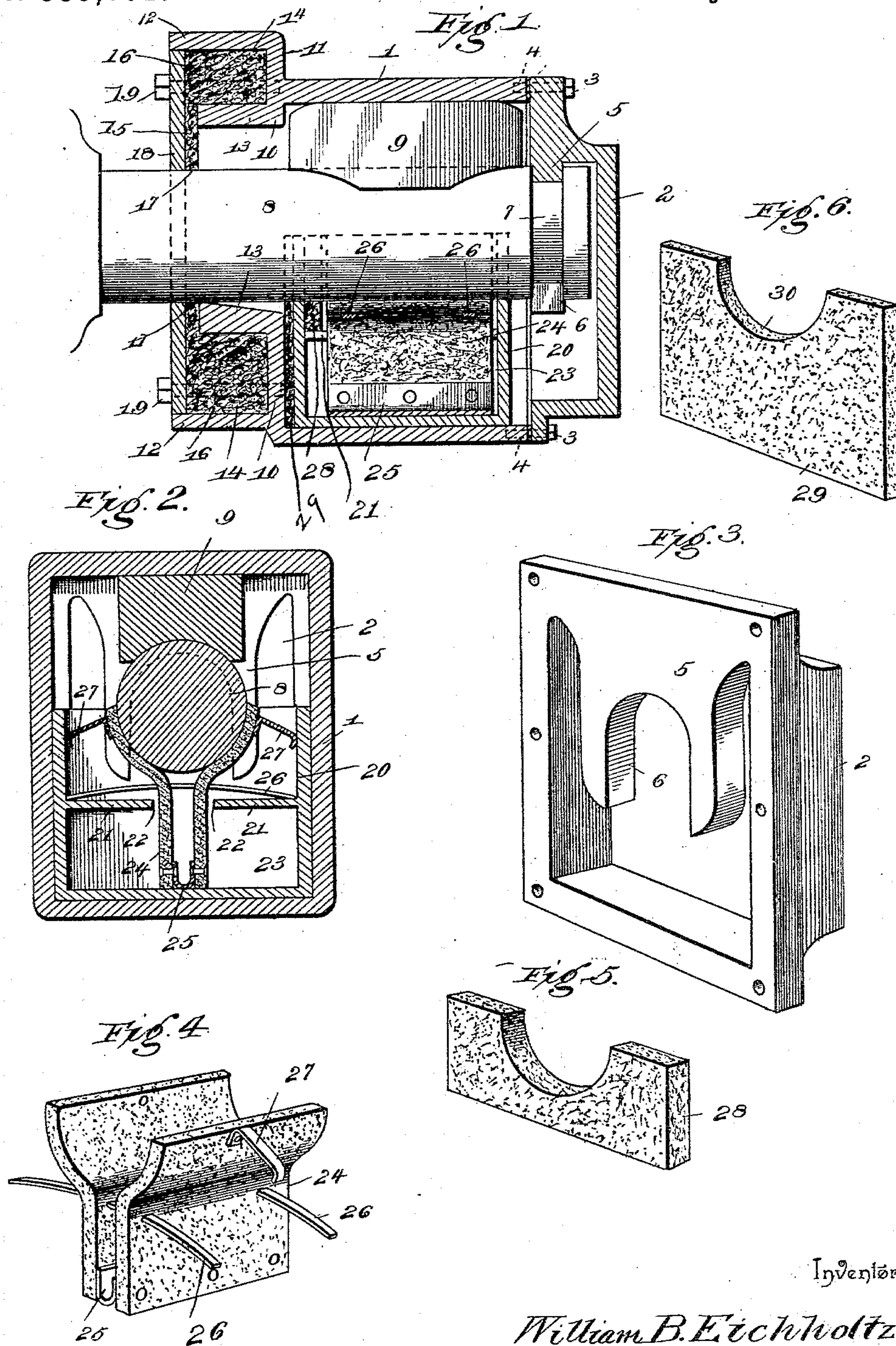


(No Model.)

W. B. EICHHOLTZ.
JOURNAL BOX.

No. 559,691.

Patented May 5, 1896.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM BELL EICHHOLTZ, OF NEW ORLEANS, LOUISIANA.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 559,691, dated May 5, 1896.

Application filed February 28, 1895. Serial No. 540,101. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BELL EICHHOLTZ, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Journal-Box, of which the following is a specification.

This invention relates to an improvement in journal-boxes of that class in which the lubricating material is conducted to the journal by means of a fibrous wiper by capillary attraction.

The object of this invention is to simplify and improve the construction of journal-boxes adapted for use on passenger and freight trucks, suburban cars, and all forms of motor, electric, or street cars; to provide a journal-box which shall effectively exclude dirt, cinders, and other foreign matter and prevent the escape of oil from the interior thereof, and to render the lubricating apparatus capable of being removed and replaced without removing the journal-box from the axle, as in the ordinary construction.

The invention consists in certain details of construction and arrangement of parts hereinafter fully described, illustrated in the drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through a journal-box constructed in accordance with my improvements. Fig. 2 is a transverse vertical section through the same. Fig. 3 is a detail perspective view of the journal-box lid and the integrally-formed end-thrust key. Fig. 4 is a similar view of the oiling-wick and its supporting-springs. Fig. 5 is a detail perspective view of the splasher for preventing the oil from slushing from the oil-reservoir. Fig. 6 is a similar view of the fibrous scraper or journal-cleaner.

Similar numerals of reference indicate corresponding parts in the figures of the drawings.

Referring to the drawings, 1 indicates a journal-box made in the usual rectangular form and provided with a removable lid 2 at the front end thereof, which is held in place and secured to the front edge of the journal-box by means of suitable tap screws or bolts 3, passing through perforations therein at suitable points and engaging threaded sockets

4 in the journal-box. The end-thrust key (indicated at 5) is formed integrally with the lid 2 and provided with the usual concavity 6, adapted to surround and engage the annular groove 7 at the outer end of the journal, by means of which the axle 8 is held in place and end thrust thereof prevented. The brass or bearing 9 may be of any preferred form and is interposed between the journal 8 and the top of the journal-box.

The rear wall of the journal-box (indicated at 10) is extended a short distance above the top of the box, as shown at 11, and extending backwardly from said rear wall are two flanges 12 and 13, the flange 13 being of slightly less depth and also smaller and nearer to the journal-opening than the flange 12, and also made tapering or sloping as to its inner surface beneath the journal for conducting oil back to the interior of the journal-box. By such arrangement of flanges a rectangular groove or depression 14 is formed for the reception of a dust-collar 15 of felt or other fibrous material. The dust-collar 15 is provided with a surrounding rim 16 of the same material, of a form adapting it to enter and snugly fit the groove or depression 14 between the flanges 12 and 13, and it is also provided with a central aperture 17, whereby it fits closely around the journal and prevents the escape of oil from the journal-box and the admission of dirt, dust, and other foreign matter to the interior of the journal-box. The dust-collar 15 is secured in place and compressible by means of an adjustable metal plate or follower 18, located outside of the dust-collar and secured by means of tap screws or bolts 19, which pass through corresponding perforations in the rim 16 of the dust-collar and the plate 18 and engage threaded perforations in the rear wall of the journal-box.

20 designates a removable oil-reservoir made in the rectangular form shown and provided with integrally-formed inwardly-projecting flanges 21, terminating at the points 22 to leave a longitudinal opening leading to the oil-chamber 23. The wick 24 is preferably made from felt or other fibrous material and is formed in two parts, as indicated in Fig. 2, united at their lower ends by a metallic strip 25, to which they may be riveted. The upper ends of the wick 24 embrace the

journal 8 on each side thereof, and by reason of the lower end of the wick passing down through the opening between the flanges 21 and lying in the oil-chamber 23 the oil is conducted by capillary attraction, through the medium of said wick, to and distributed evenly upon the axle-journal in a manner that will be readily understood. Two flat springs 26 pass through the wick 24 and rest at their ends upon the flanges 21, serving to uphold the wick in close contact with the journal at all times. Additional springs 27 attach to the wick upon each side at or near the top edges thereof, and bearing against the side walls of the oil-reservoir serve to press said upper ends firmly against the axle-journal.

Within the oil-reservoir, at the rear end thereof, is located a splasher 28, of felt or other fibrous material, which is adapted, when the journal-box is violently thrust endwise, to catch the oil and prevent the same from slushing or splashing out of the reservoir. Interposed between the rear wall of the reservoir and the inner face of the rear wall of the journal-box is a felt or fibrous scraper 29, which is provided at its upper edge with a concavity 30, adapting said scraper to partially surround the journal, its function being to clean the journal at this point and prevent foreign matter, which may have entered the journal-box through the rear opening thereof, from advancing any farther and getting into the oil-reservoir. The dirt, &c., scraped from the axle gradually works its way to the bottom of the journal-box, from which it can be removed when the lid 2 is taken off.

From the foregoing description it will be apparent that by removing the lid 2 the entire front of the journal-box is thrown open, which will permit the oil-reservoir, together with the wick contained therein, to be removed without the necessity of removing the journal-box from the end of the axle and the pedestal, as in the ordinary construction of journal-boxes. The supply of oil in the oil-chamber 23 may be cleaned or renewed and the reservoir restored to its working position and the lid 2 again applied in a manner that will be readily understood.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

Having described my invention, I claim—

1. The combination with a journal-box, of a removable oil-reservoir having inwardly-extending horizontal flanges projecting at their inner ends into proximal relation, a fibrous oil-wick arranged between the adjacent edges of said flanges and extending down into the reservoir and upward against and upon opposite sides of the journal, and a plurality of wick-supporting springs extending transversely through the wick and resting at their opposite ends upon the flanges of the oil-reservoir, substantially as and for purpose specified.

2. A journal-box provided with a flange extending around the journal-opening in the rear of the box and projecting outwardly from the rear wall of the box proper and also made tapering in its inner face for conducting the oil back into the journal-box, and an outer flange also projecting outwardly from the rear wall of the journal-box and surrounding the aforesaid flange, in combination with a dust-collar of fibrous material arranged between the said pair of flanges and having a central portion which is apertured to closely embrace the journal, and an adjustable plate embracing the axle-journal and bearing against the dust-collar, and suitable fastening and adjusting devices passing through said plate and into the journal-box for moving said plate inward and compressing the dust-collar, substantially as specified.

3. The combination with a journal-box, and with a journal having an annular groove adjacent to its outer end, of a vertically-movable and detachable lid, and an end-thrust key permanently connected to and forming a part of the lid and removable therewith, the said end-thrust key being adapted to embrace said journal and engage within the annular groove therein, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM BELL EICHHOLTZ.

Witnesses:

B. WILLARD,
W. N. SMITH.