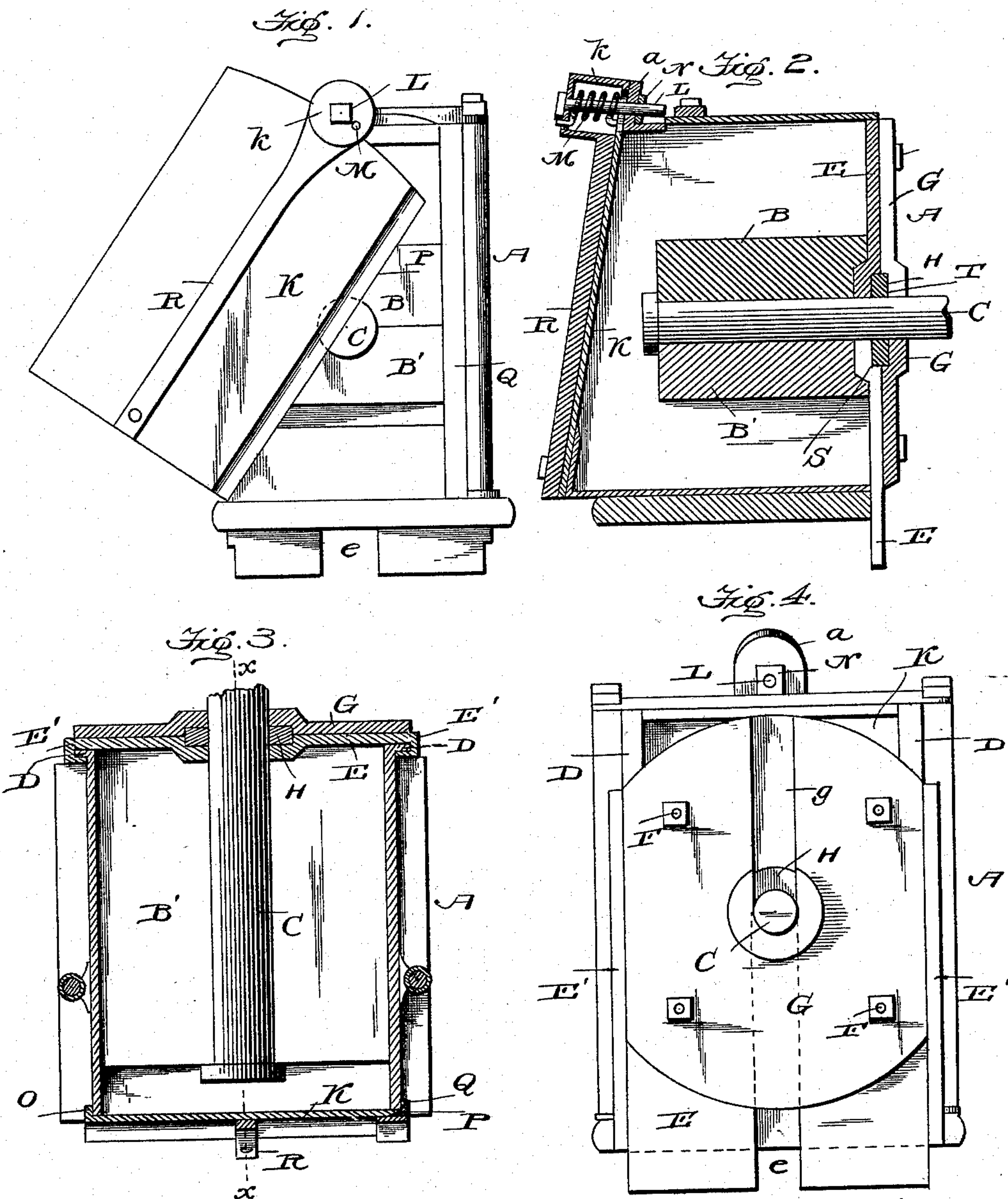


(No Model.)

G. W. GRIFFITHS.
CAR AXLE BOX.

No. 518,524.

Patented Apr. 17, 1894.



Griffith W. Griffiths
Inventor:

Witnesses:

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By Edson Brod
Att'y's.

UNITED STATES PATENT OFFICE.

GRIFFITH W. GRIFFITHS, OF TECUMSEH, MICHIGAN.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 518,524, dated April 17, 1894.

Application filed August 15, 1893. Serial No. 483,209. (No model.)

To all whom it may concern:

Be it known that I, GRIFFITH W. GRIFFITHS, a citizen of the United States, residing at Tecumseh, in the county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Car-Axle Boxes; and I do hereby 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. My invention relates to improvements in car axle boxes and it consists in the peculiar construction and arrangement of parts as will be hereinafter fully pointed out and claimed.

In the accompanying drawings—Figure 1 is a front elevation of my improved car axle box showing the cover swung to one side. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a horizontal sectional view showing the swinging cover in its closed position. Fig. 4 is a rear elevation of the box.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates the box which may be of any suitable size and material and which is adapted to be suitably mounted on the truck of a car.

Within the box A are arranged two bearing plates B, B', which are provided on their inner adjacent faces with aligned grooves or seats to receive the axle C.

The box A is provided at its rear end, on both sides, with vertical guide flanges D and said guide flanges extend into grooves formed in the inner faces of flanges E' on a back plate E. The plate extends across the rear end of the box and in said plate is formed a central longitudinal slot e which opens through the lower end of the plate. To the back plate E is attached, by means of bolts F, or other suitable devices, a cap plate, G. In the plate G is formed a longitudinal slot g which opens through the upper end of the plate and aligns for a portion of its length, with the slot in the back plate E. The axle C extends through the aligned slots in the back and cap plates; and bears against the upper and lower ends thereof, respectively.

In the adjacent faces of the back and cap plates are formed aligned circular grooves S, T, which, when the plates are brought to-

gether form a circular seat. In said seat is fitted a metallic or rubber ring or washer H which bears close against the axle C and prevents any oil from escaping from the box or any dust entering the box from that side. When the washer H becomes worn it can be readily removed and replaced by a new one by simply detaching the cap plate from the back plate.

The interior of the box around the bearing plate is designed to be filled with suitable packing waste and oil so as to thoroughly and continually lubricate the axle.

The front open end of the box, through which packing is introduced into the box is closed by a laterally swinging door or cover, K. This cover K is preferably made of sheet steel and is pivotally connected at its upper end to a lug a, on the top of box A. The lid K and lug a are connected by a bolt, L, that extends through said lug and a forwardly projecting lug, k, on the lid. The body of the lug k is partially removed to form a chamber therein and within said chamber, around the pivot bolt, L, is arranged a coiled spring, M. One end of the spring, M, extends into a socket formed in the lug k on one side of the pivot bolt and the other end of the spring is fitted in a socket in the lug a on the opposite side of said bolt. The cover or door is held in position against the box by a nut, N, that is screwed on the pivot bolt L. The cover, K, is provided on one edge with a rearwardly extending flange O, that, when the cover is in a position to close the opening in the front of the box bears against the side of the box and forms a close joint therewith. The opposite edge of the cover K is beveled or reduced to form a knife edge P and, when the cover is in its closed position, as indicated in Fig. 3 of the drawings, said knife edge is covered and concealed by means of a guard plate, Q, attached to the box A. The cover K is strengthened by a longitudinal rib R formed in its outer face and said rib also enables the cover to be readily swung on its pivot to expose the opening in the front of the box. The cover K is normally maintained in its closed position by the action of the coiled spring, M, and the interior of the box is thus tightly closed and the escape of oil therefrom or the passage of dust therein is prevented.

When it is desired to renew or add to the packing in the box the cover K can be readily swung to one side to expose the opening in the front of the box and when pressure is removed from the cover it is instantly returned to its closed position by the spring M. As the cover moves across the open end of the box A, toward the guard plate Q the knife edge thereof severs any of the packing that may protrude from the box.

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

1. The combination with a car axle box, of a lid or cover pivoted to the box and having one edge sharpened to form a cutter and its opposite edge provided with a flange, O, adapted, when the lid is closed, to bear against one side of the box, and a guard secured on the box and adapted to cover the knife edge of the lid when the latter is closed, substantially as described.

2. The combination of a car axle box provided with a vertically movable back plate,

E, a cap plate G, detachably attached to the back plate, and a washer fitted in a seat formed in the adjacent faces of the cap and back plates, around the axle passages therein, substantially as described.

3. The combination with a car axle box provided at its rear end with flanges, D, of a back plate, E, provided with a central longitudinal slot, e, which opens through the lower end of said plate, and, on opposite edges, with flanges in which are formed ways to receive the flanges, D, on the box, and a cap plate, G, detachably attached to the back plate and provided with a central longitudinal slot, g, that opens through the upper end of said plate and aligns, for a portion of its length, with the slot, e, in the back plate, E, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GRIFFITH W. GRIFFITHS.

Witnesses:

LYMAN E. HAUSE,
E. C. VAN VLEET.