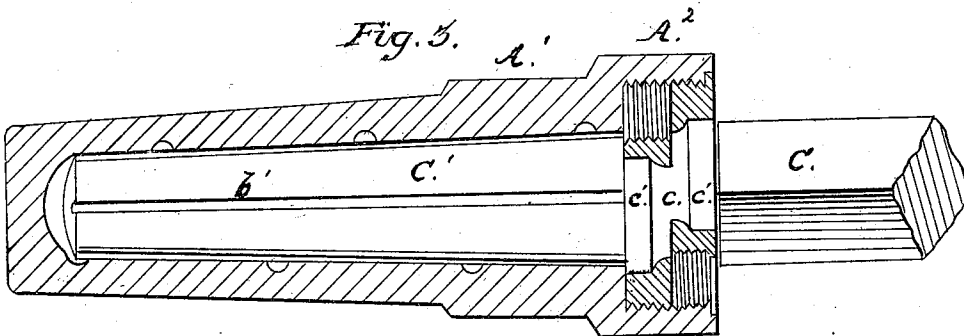
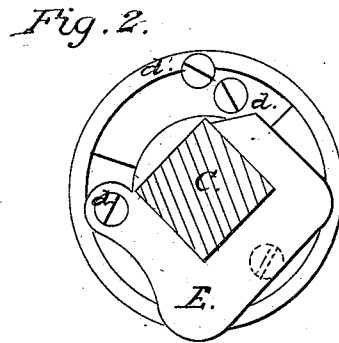
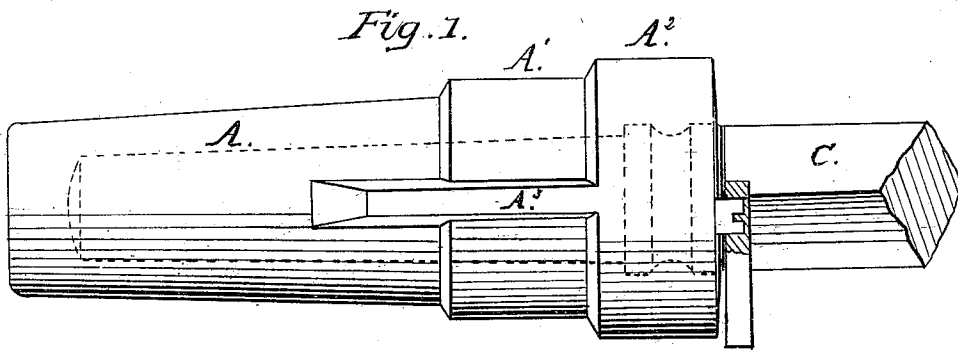


J. H. RIEMKASTEN.

Axle-Lubricator.

No 40,431.

Patented Oct. 27, 1863.



Witnesses:

Charles Smith
J. Scherlin

Inventor:
John H. Riemkasten

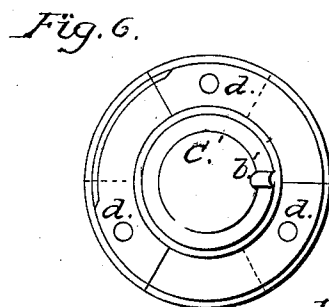
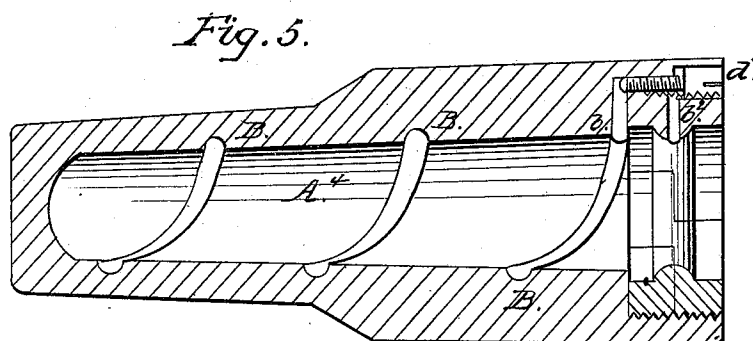
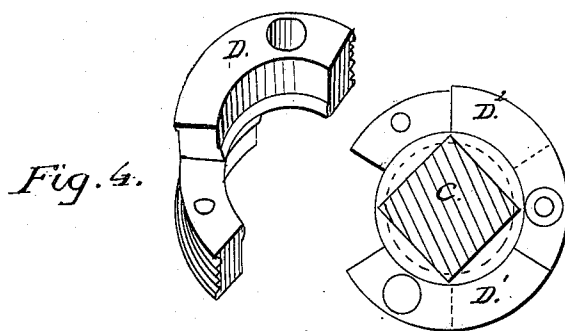
J. H. RIEMKASTEN.

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UNITED STATES PATENT OFFICE.

JOHN H. RIEMKASTEN, OF FRANKLIN GROVE, ILLINOIS.

IMPROVEMENT IN METHOD OF ATTACHING CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 40,431, dated October 27, 1863.

To all whom it may concern:

Be it known that I, JOHN H. RIEMKASTEN, of Franklin Grove, in the county of Lee and State of Illinois, have invented certain new and useful Improvements in Attaching and Lubricating Carriage-Wheels; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of a box of a carriage-hub and part of an axle, illustrating my invention. Fig. 2 is an end view of the same. Fig. 3 is a longitudinal section of the box, showing the axle in elevation. Fig. 4 is a view of the divided nut, illustrating the manner of applying it to the axle. Fig. 5 is a longitudinal section of the box and nut without the axle, exhibiting the lubricating-channels. Fig. 6 is an end view of the axle-arm and hub removed from the box.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to provide means for safely securing wheels of carriages or other vehicles upon their axles, readily attaching, removing, and lubricating the same, confining the lubricating material, and excluding dust and other deleterious matter from the journals.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe it and the manner of carrying it into effect.

In the accompanying drawings, A represents a tapering metallic axle-box, the interior A¹ of which is of corresponding tapering form, and provided with a spiral groove or channel, B, for the reception and distribution of the lubricating material. On the exterior of the box A may be formed enlargements A² and ribs or flanges A³, the latter being designed to confine the box within the hub of the wheel in customary manner.

C may represent an axle, upon the tapering arm C' of which the box A is fitted. This arm C' is securely confined within the box A by an encircling-nut, D D' D², the screw-threaded periphery of which fits within a corresponding countersink or receptacle formed upon the interior of the enlarged portion A² of the box A. This nut is formed into three

or more divisions or sections, (indicated by the letters D D' D²,) the form of each being similar to that of the section D, which is exhibited in perspective in Fig. 4. The several parts of the nut are secured together by screws *d d d*, or other suitable means, so as to adapt them to be readily disconnected and removed from the arm C', or adjusted and secured in proper position thereon, as may be desired. The said arm C' is prevented from endwise movement, when encircled by the nut D D' D², by the inner surface of said nut taking into a corresponding groove, *c*, formed in the collar *c' c'*.

d' represents a screw which passes into a hole or socket formed partly in the box A and partly in the nut D D' D², and thus compels the two to revolve together. This hole or socket into which the screw *d'* passes beside serving to lock together the nut and box, also constitutes an aperture for the introduction of oil or other lubricating material to the interior of said box, its inner terminus communicating with a groove or passage, *b*, which leads into the main distributing-channel B.

b' represents an aperture for conducting the lubricant to the groove *c*. The screw *d'*, when inserted, performs the additional function of excluding dust and other foreign matter.

In Figs. 3 and 6, *b'* may represent a straight groove for more fully insuring the equal distribution of the lubricating material.

Fig. 2 represents the application to the axle of a wrench-hand, E, for facilitating the removal of a wheel from its axle, said hand being provided with an orifice which may be placed over the projecting head of either of the screws *d*, which may be partially withdrawn for that purpose.

Operation: For ordinary lubricating purposes it is only necessary to withdraw the screw *d'* and introduce the lubricating material to the desired extent. The screw being then inserted, effectually confines the same and excludes dust and other deleterious matter. If it be necessary to remove the wheel from its axle for inspection or repair of the parts, by withdrawing the screw *d'* and applying the wrench-hand E to the axle, as shown in Fig. 2, with its orifice passing over the head of one of the screws *d*, the box A is held from rotating on the axle and may be quickly separated from the nut D D' D² by forcibly

rotating the wheel in a backward direction, said nut being retained upon the axle.

The nut may be unclashed from the collar *c' c'* by removing any two of the screws *d*.

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

A divided nut, constructed and applied, substantially as described, to confine the arm C

within the box A, when used in combination with screws or bolts *d*, to secure the divided nut upon the collar, and with a screw, *d'*, to prevent the turning of the nut within the box.

JOHN H. RIEMKASTEN.

Witnesses:

CHARLES SMITH,
JAMES H. GRIDLEY.