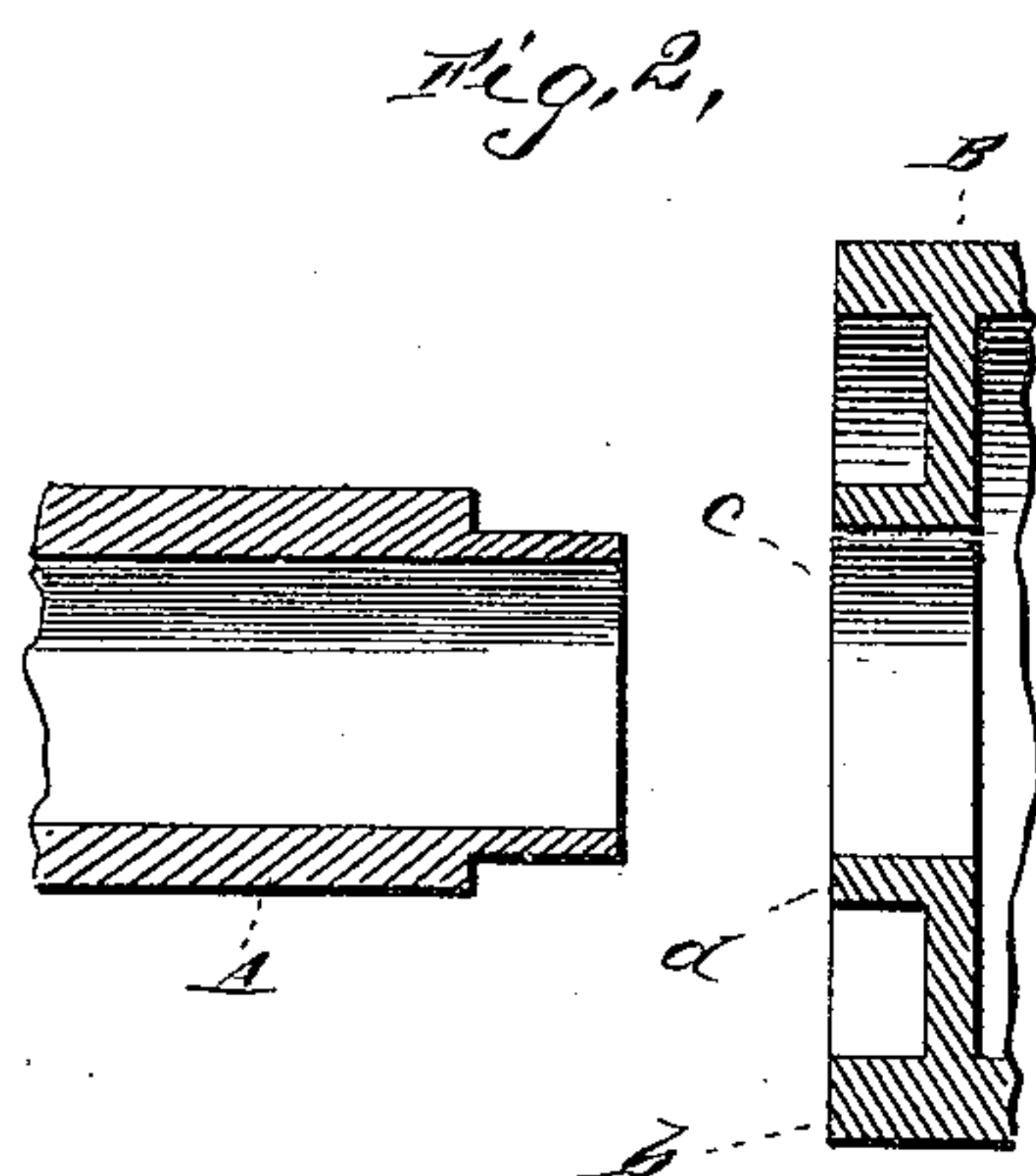
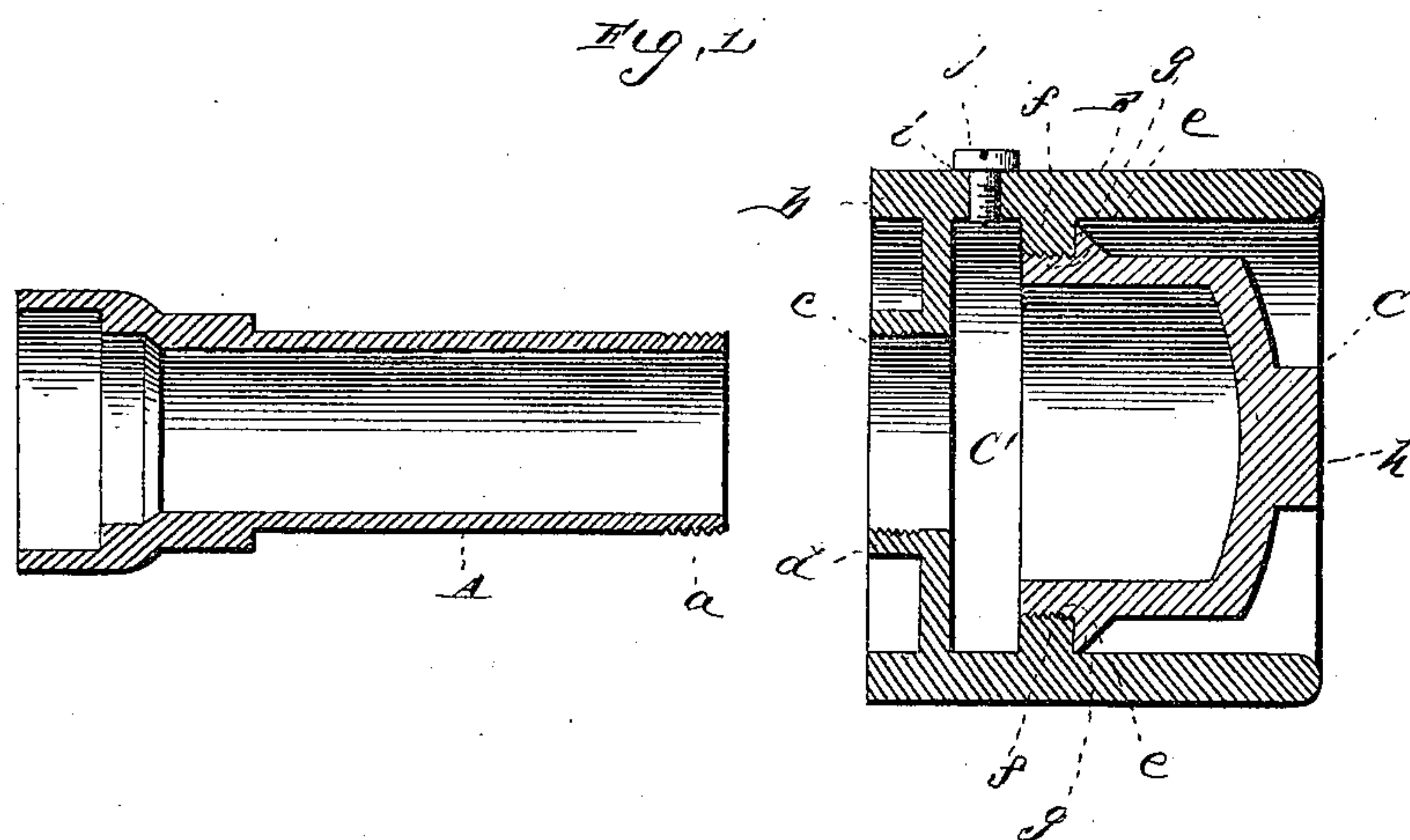


(No Model.)

H. M. GOODMAN.
AXLE BOX FOR VEHICLES.

No. 442,521.

Patented Dec. 9, 1890.



WITNESSES

Chas. L. Taylor,
Philippi.

INVENTOR

Henry M. Goodman
by E. W. Anderson,
his Attorney

UNITED STATES PATENT OFFICE.

HENRY M. GOODMAN, OF LOUISVILLE, KENTUCKY.

AXLE-BOX FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 442,521, dated December 9, 1890.

Application filed July 19, 1890. Serial No. 359,287. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. GOODMAN, a citizen of the United States, a resident of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Axle-Boxes for Vehicles; and I 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical longitudinal section. Fig. 2 is a vertical section of a modified form of boxing.

This invention relates to certain improvements in axle-boxes; and it consists in the novel construction and combination of parts, as hereinafter disclosed.

In the drawings, A refers to the axle-sleeve adapted to fit the bore of the hub and having one end adapted to receive the annular shoulder on the axle, the other end of said sleeve having an external screw-thread *a*.

B is the cap-section, having at its inner end a rim *b*, fitting upon the outer end of the hub and around the opening *c*. In the same end of said cap-section is an outwardly-projecting screw-threaded flange *d*, adapted to engage the screw-thread *a* of the sleeve A, thus connecting said cap-section and said sleeve together.

C is the cap, adapted to be wholly let into the inclosing cap-section B and having at its inner end an external screw-thread *e*, engaging the corresponding surface of an internal circular flange *f* on said section, said cap also having at the outer end of its screw-thread *e* a circular flange *g*, bearing against the flange *f* when the cap is screwed home and making a perfectly-tight joint thereat.

The outer end of the cap C has an angular stud or projection *h* to permit of its ready manipulation or removal and replacement by a wrench. The filling-opening *i* of the lubricant chamber or reservoir C', formed by the cap and cap-section, is closed by the screw-plug *j*.

This axle-box is simple and cheaply manufactured, and is readily and quickly applied to the hub, it also being capable of use on locomotives and street-cars as well as other vehicles.

In the modification disclosed in Fig. 2 the screw-threads are omitted from the cap-section and sleeve.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The axle-box having the sleeve adapted to fit the bore of the hub and a shoulder of the axle, and a cap-section adapted to fit the hub and engage said sleeve and the cap fitting within and held to said cap-section at its inner circumference, said cap and cap-section constituting the lubricant-chamber, substantially as set forth.

2. The axle-box having the sleeve adapted to fit the bore of the hub and the shoulder of the axle and having a screw at one end, in combination with the cap-section adapted to fit the outer end of the hub and having around the opening in its inner end an outwardly-projecting screw-threaded flange, and the cap having at its inner end a screw-thread engaging an internal screw-threaded flange of said cap-section, and a flange bearing against the aforesaid flange, substantially as set forth.

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

HENRY M. GOODMAN.

Witnesses:

S. P. WALKER,
GEO. C. STAUBER.