

(No Model.)

2 Sheets—Sheet 1.

C. W. BREWER.
AXLE LUBRICATOR.

No. 477,620.

Patented June 21, 1892.

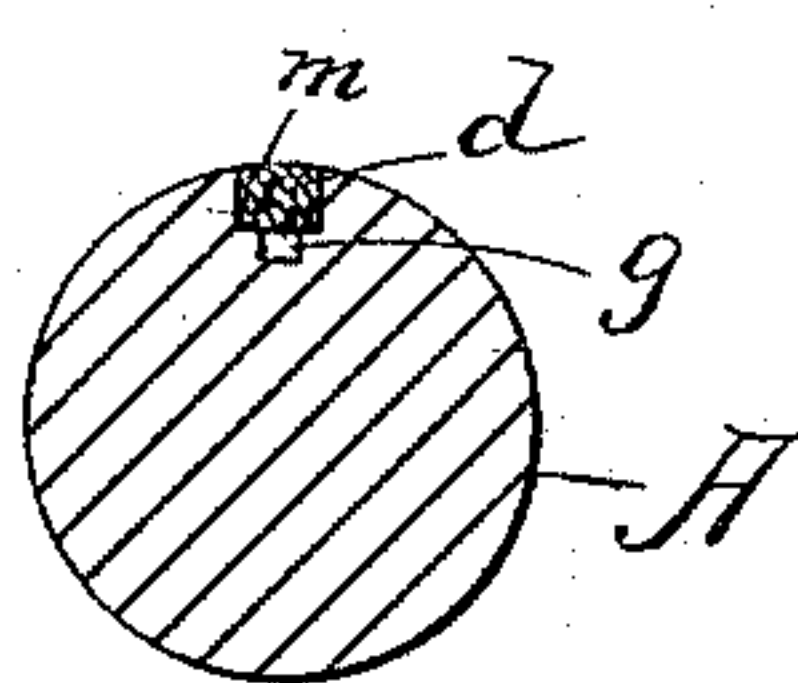
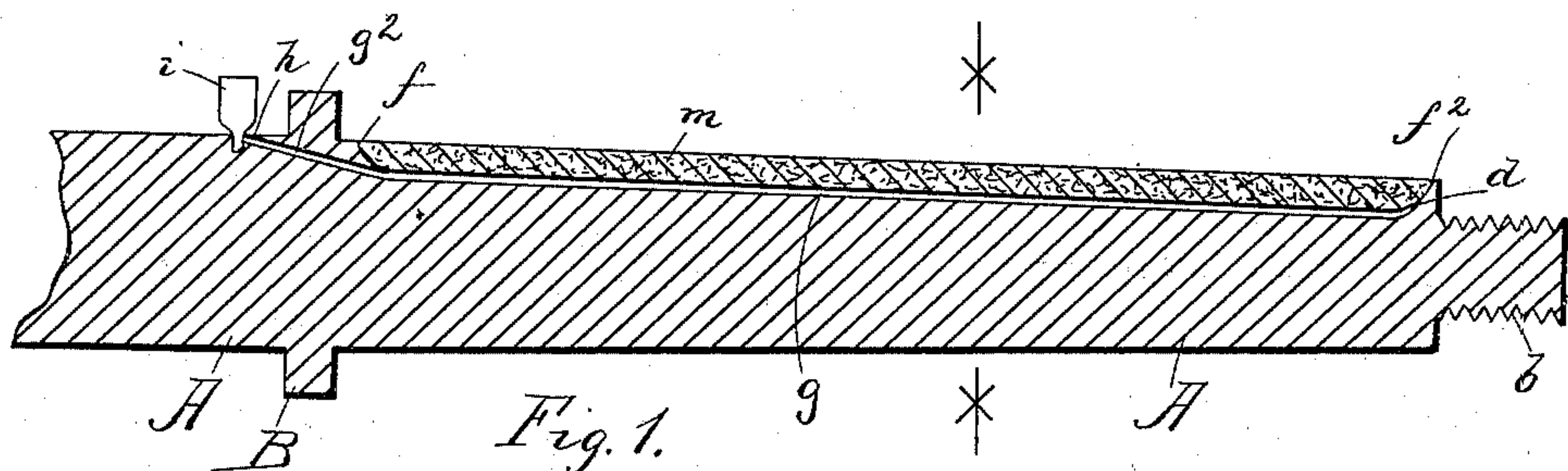


Fig. 2.

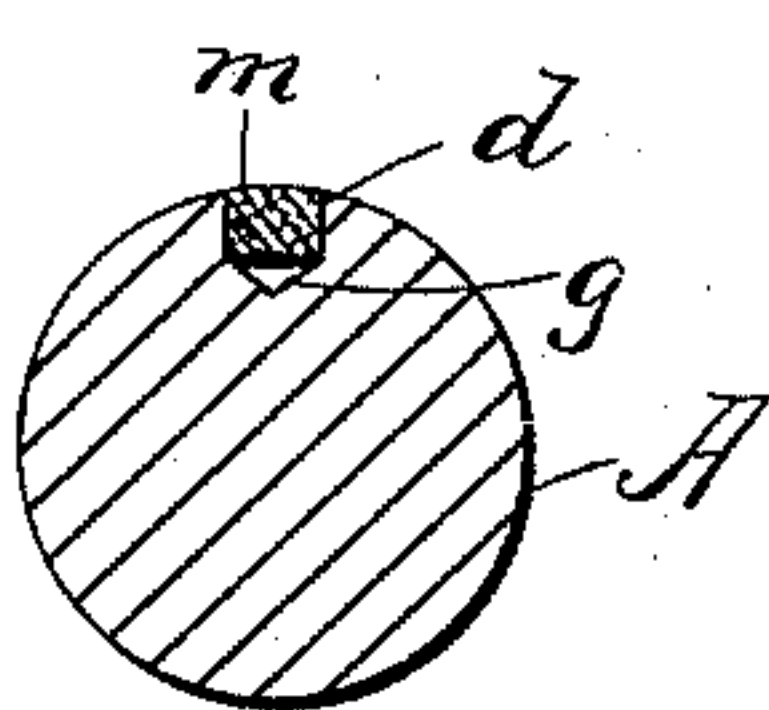


Fig. 3.

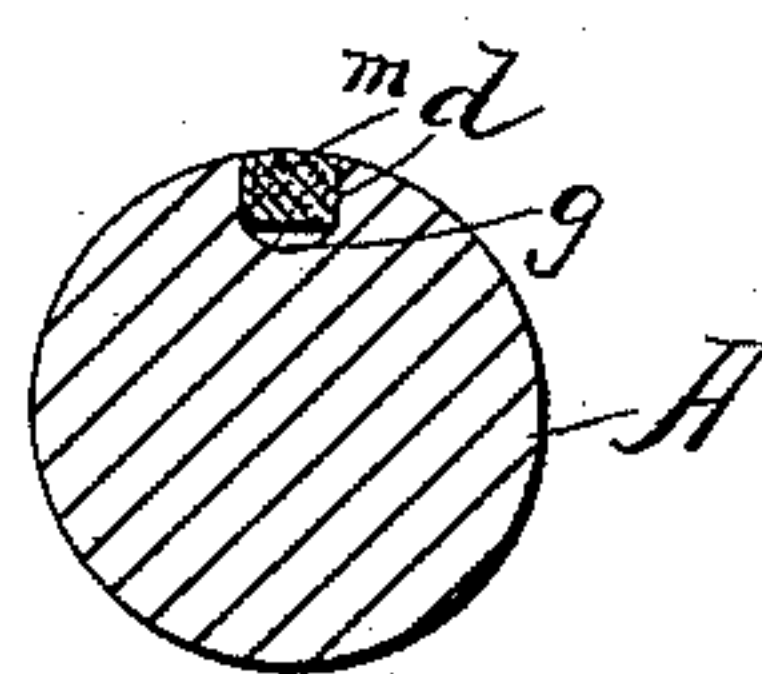


Fig. 4.

WITNESSES
Ernest H. Fay.
St. Dunlop

INVENTOR
Charles W. Brewer,
By C. A. Shaw & Co.,
ATTYS

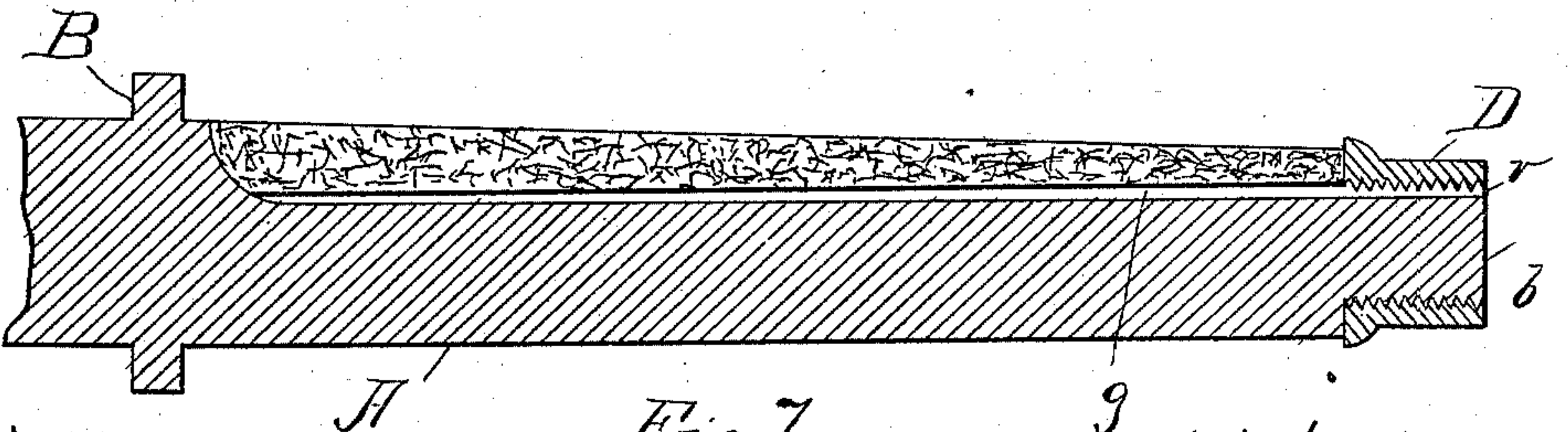
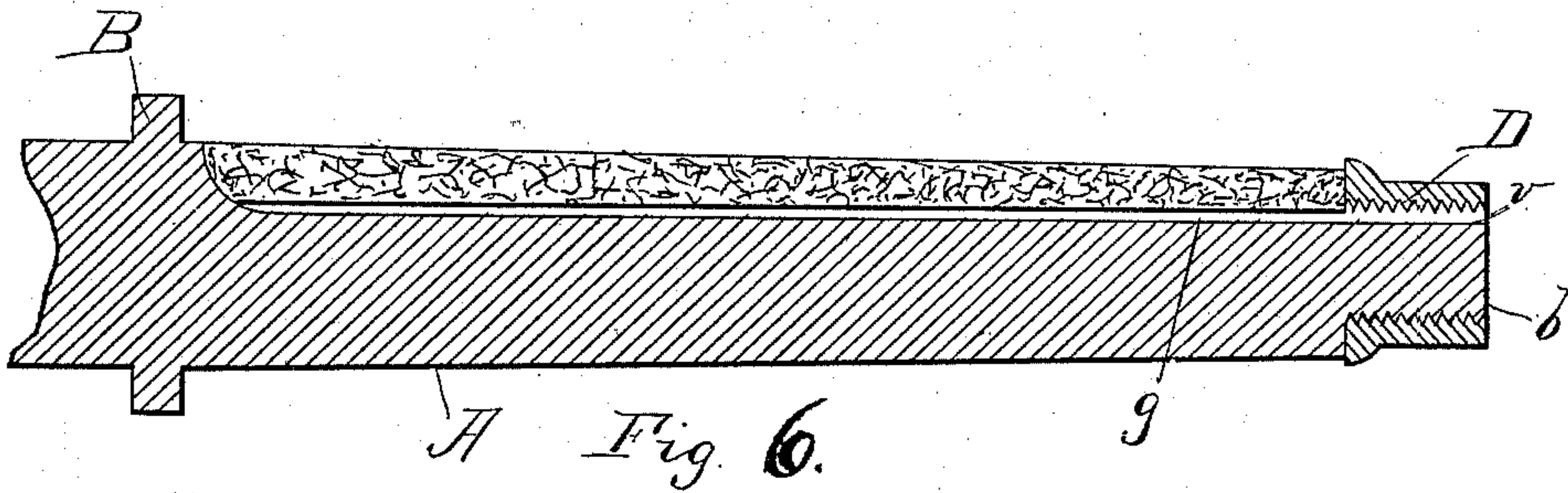
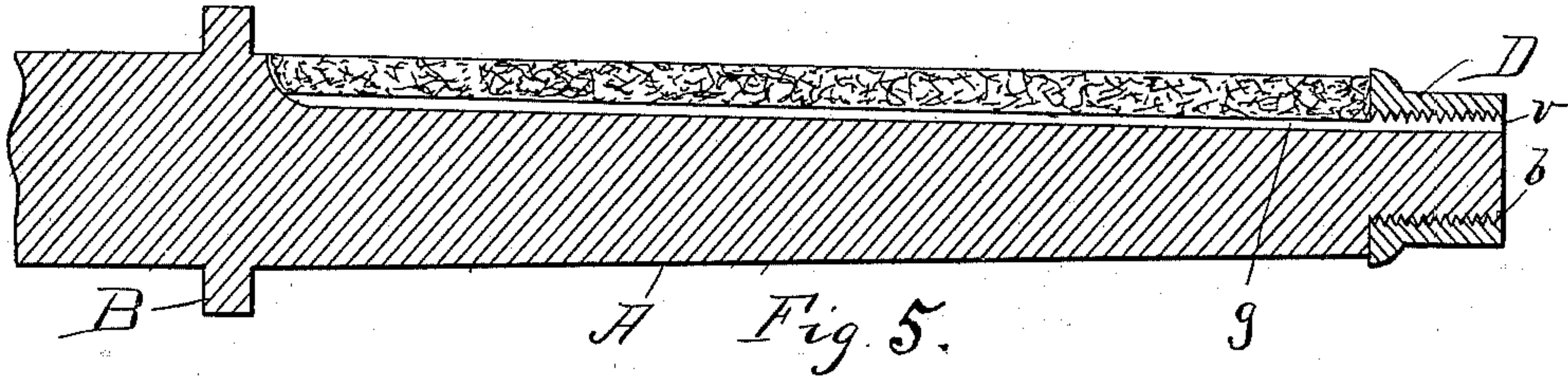
(No Model.)

2 Sheets—Sheet 2.

C. W. BREWER.
AXLE LUBRICATOR.

No. 477,620.

Patented June 21, 1892.



WITNESSES
Irving H. Fay.
H. Durfee

Fig 7
INVENTOR
Charles W. Brewer
By C. A. Shaw
ATTYS

UNITED STATES PATENT OFFICE.

CHARLES W. BREWER, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR, BY
DIRECT AND MESNE ASSIGNMENTS, TO THE BREWER LONGITUDINAL
AXLE LUBRICATOR COMPANY, OF PORTLAND, MAINE.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 477,620, dated June 21, 1892.

Application filed July 20, 1891. Serial No. 400,011. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. BREWER, of Cambridge, in the county of Middlesex, State of Massachusetts, have invented certain new and useful Improvements in Axle-Lubricators, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention 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 vertical longitudinal section of my improved axle; Fig. 2, a transverse section of the same; Figs. 3 and 4, like views showing modifications in the formation of the groove; Figs. 5, 6, and 7, like views showing the oil-duct extended through the threaded portion of the axle.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to means for lubricating the axles of vehicles, it being designed as an improvement on the device shown and described in United States Letters Patent numbered 450,135, dated April 14, 1891, granted to me for new and useful improvements in axle-lubricators.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the axle, which is provided with the ordinary hub-flange B and tapers outwardly in the usual manner, its outer end being reduced and screw-threaded at *b* to receive the nut. A longitudinally-arranged groove *d* is formed in the upper face of the wheel-bearing of the axle between points *f f*². In the bottom of said groove a longitudinally-arranged oil-duct *g* is formed of less width than the main groove, as shown in Fig. 2, or said duct may be formed by depressing the bottom of the main groove in V or U shape in cross-section, as shown in Figs. 3 and 4. Said duct is elongated beyond the inner end *f* of the main groove through or under the flange B at *g*² and opens at *h* on the face of the axle, at which point an oil-cup *i* is disposed. A pad

m, of felt or similar absorbent material is disposed in the groove *d*; said pad being preferably rectangular in cross-section, so that when in position it will not project into the oil-duct *g*.

In the use of my improvement oil is continuously supplied from the cup *i* to the duct *g*, and, being absorbed by the pad *m*, is conveyed to the hub-journal, forming a constant lubricant. Instead of employing the cup the duct may be filled with oil and its mouth *h* plugged. By arranging the duct as described the necessity of removing the wheel to oil the journal is done away with.

In Figs. 5, 6, and 7 the duct *g* is formed in the bottom of the groove *d*, but terminates at *f* with said groove and is elongated at *v* through the threaded portion *b* of the axle. This permits oil to be inserted in said duct and taken up by the pad without removing the nut D. The pad closing the top of the duct prevents sand or grit from passing through the part *v* to the journal. The duct in Fig. 5 is pitched parallel with the taper of the wheel-bearing. In Fig. 6 said duct is parallel with the axle, and in Fig. 7 said duct inclines inward. I do not, however, deem these forms as efficient and prefer to construct the duct in the bottom of the pad-groove.

Having thus explained my invention, what I claim is—

1. A vehicle-axle provided with a longitudinal groove in its journal adapted to receive an absorbent pad and an oil-duct opening into said groove and extending longitudinally thereof beneath the pad for the free passage of oil, said duct opening at one end of the journal for receiving the supply of oil.

2. A vehicle-axle provided with a longitudinal groove in its journal adapted to receive an absorbent pad and an oil-duct opening into said groove and extending longitudinally thereof beneath the pad for the free passage of oil, said duct extending to the periphery of said axle in the rear of hub-flange, substantially as described.

CHARLES W. BREWER.

Witnesses:

K. DUFFEE,
O. M. SHAW.