

No. 609,844.

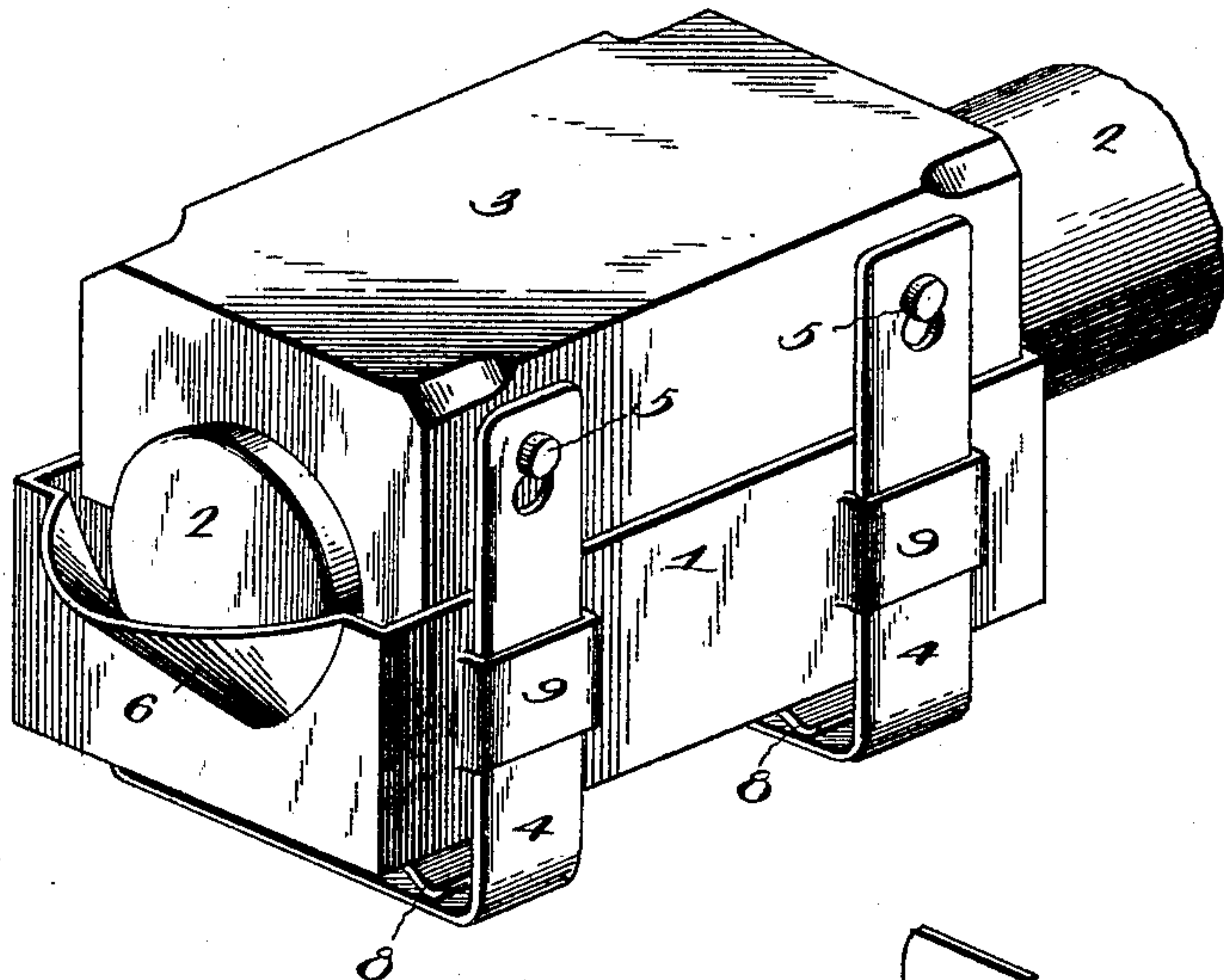
Patented Aug. 30, 1898.

F. S. & S. J. SMITH.  
CAR AXLE LUBRICATOR.

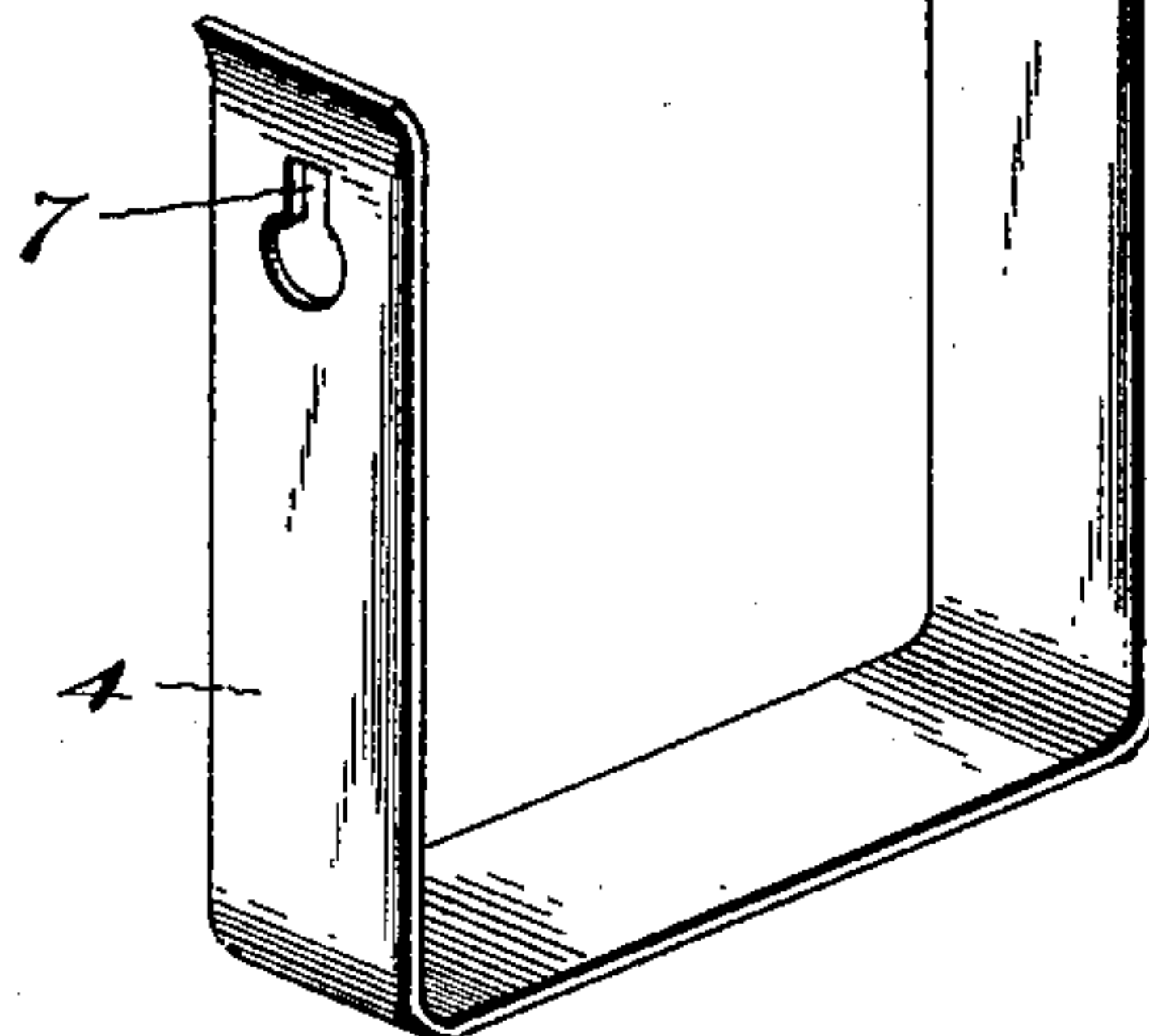
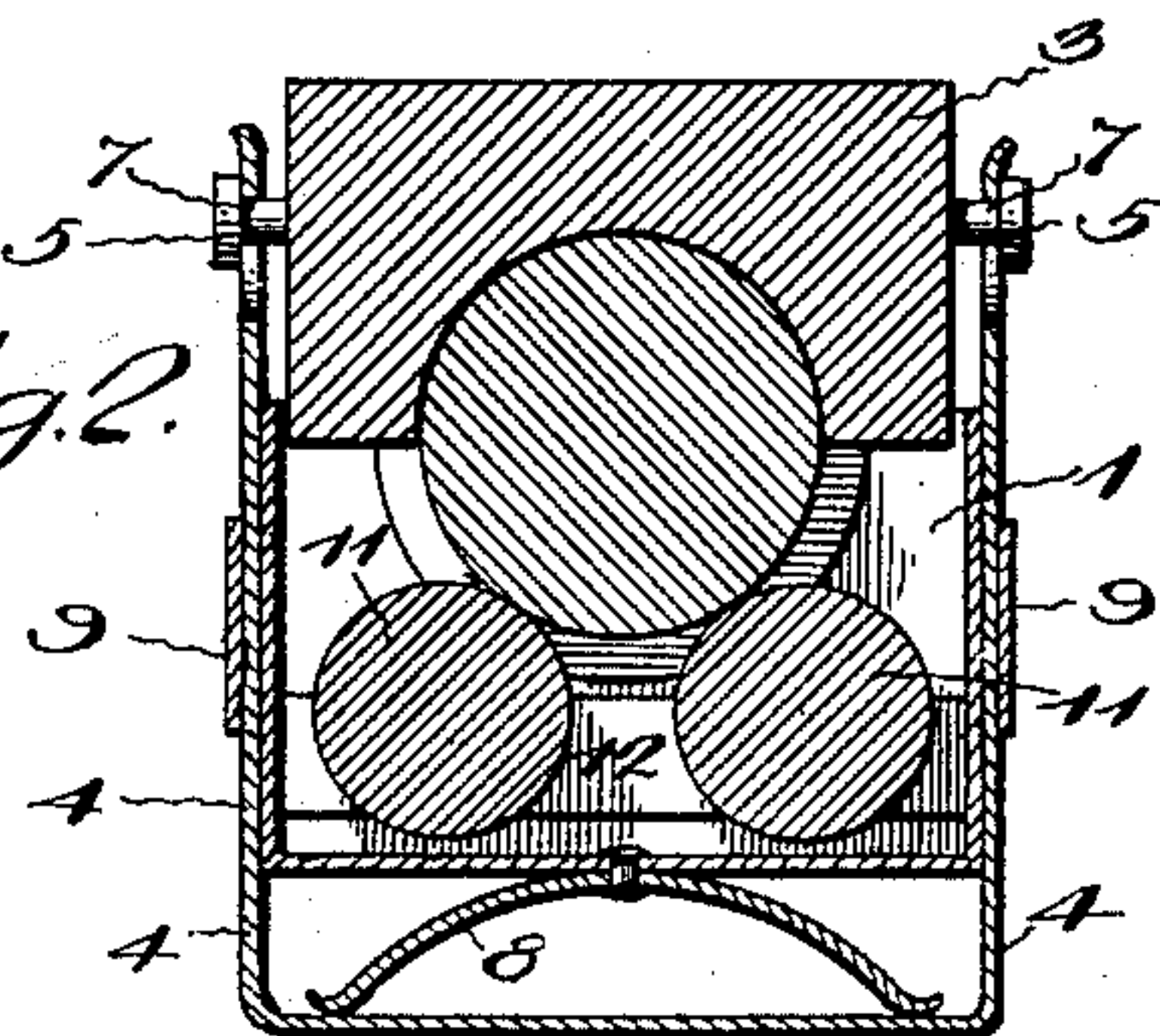
(Application filed May 18, 1898.)

(No Model.)

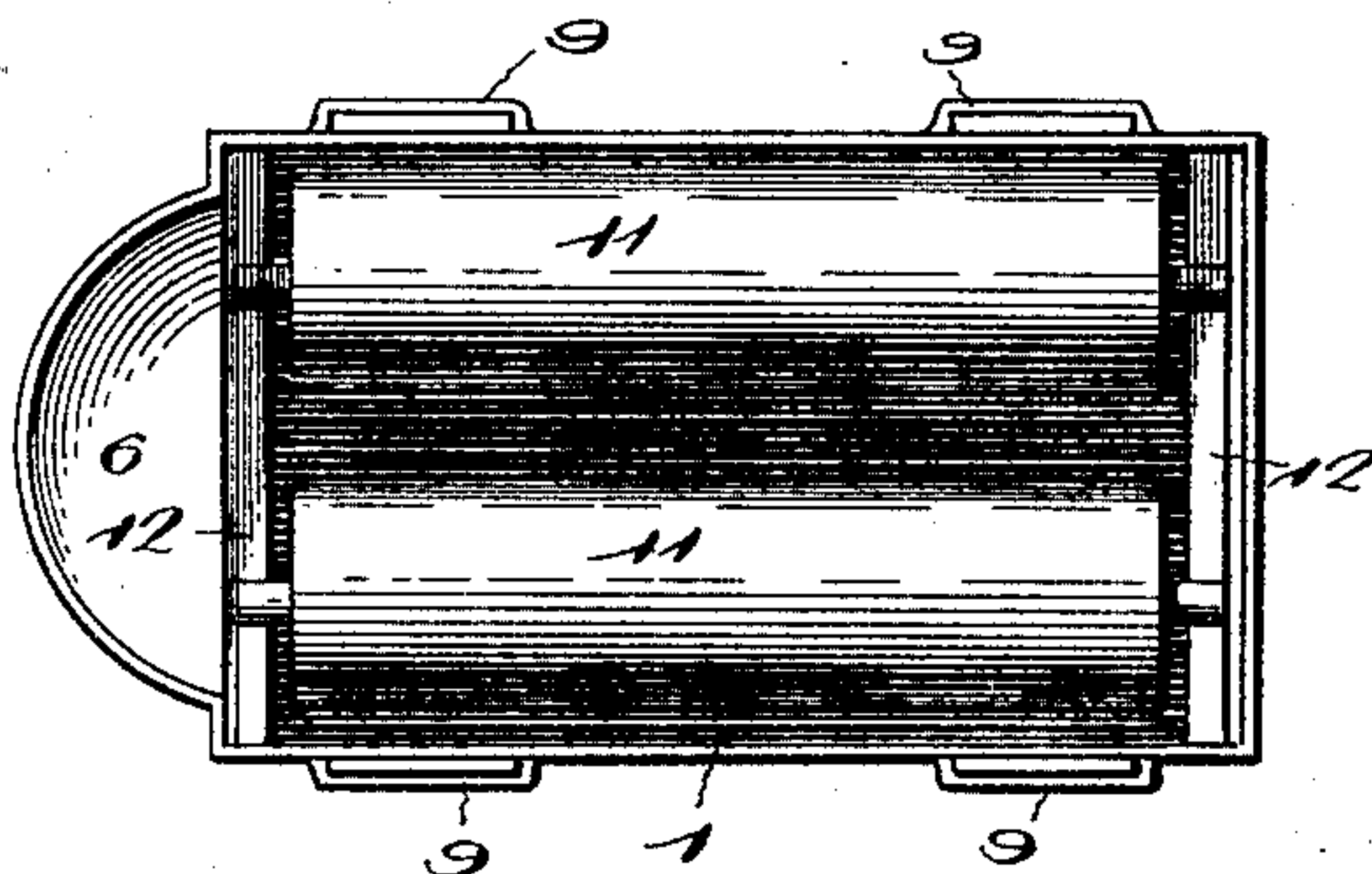
*Fig. 1.*



*Fig. 2.*



*Fig. 4.*



*Fig. 3.*

Frank S. Smith and  
Samuel J. Smith, Inventors.

Witnesses

J. Graubulwerwell,

By Their Attorneys,

J. F. P. Pily

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

FRANK S. SMITH AND SAMUEL J. SMITH, OF CONEMAUGH, PENNSYLVANIA,  
ASSIGNORS OF ONE-HALF TO JOHN P. LEHMAN, OF GEISTOWN, AND  
LEWIS ELMER KINCH, OF PITTSBURG, PENNSYLVANIA.

## CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 609,844, dated August 30, 1898.

Application filed May 18, 1898; Serial No. 681,045. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK S. SMITH and SAMUEL J. SMITH, citizens of the United States, residing at Conemaugh, in the county of Cambria and State of Pennsylvania, have invented a new and useful Car-Axle Lubricator, of which the following is a specification.

The invention relates to improvements in car-axle lubricators.

The object of the present invention is to improve the construction of lubricators and to provide a simple, inexpensive, and efficient one designed for lubricating car-axles and analogous constructions and adapted to distribute oil evenly and uniformly over a journal without wasting any of the lubricant.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a lubricator constructed in accordance with this invention and shown applied to a car-axle journal. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a plan view of the lubricator detached, illustrating the arrangement of the feed-rolls. Fig. 4 is a detail perspective view of one of the straps or hangers.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a substantially rectangular oil box or reservoir arranged beneath an axle 2 and suspended from a journal bearing or brass 3 by means of stirrups or hangers 4, which engage studs 5, extending from opposite sides of the bearing or brass, as clearly shown in Figs. 1 and 2 of the accompanying drawings. The reservoir or box has its rear wall cut out to receive the journal, and it is provided at its front wall with a curved lip 6 to enable oil to be readily poured into the box or reservoir.

Each strap or hanger is substantially rectangular, being composed of vertical sides and a connecting bottom piece, and the sides are provided at their upper ends with inverted keyhole-slots 7 to receive the studs 5, which

are headed. The heads of the studs are adapted to be passed through the lower and larger portions of the slots, and the stems or shanks of the studs are retained in the upper narrow portions of the slots by springs 8, secured to the bottom of the box or reservoir and interposed between the same and the bottoms of the straps or hangers. The springs 8, which are secured between their ends to the lower face of the bottom of the box or reservoir, are curved, and their ends bear against the upper face of the bottom portions of the hangers and prevent the same from becoming accidentally disconnected from the journal bearing or brass.

The box or reservoir is provided on the outer faces of its sides with horizontal loops or guides 9, through which pass the vertical sides of the straps or hangers, and the upper ends of the sides of the straps or hangers may be readily sprung out of engagement with the studs of the journal bearing or brass.

The oil is fed to the journal by a pair of longitudinal feed-rolls 11, provided at their ends with journals arranged in suitable bearings of transverse bars 12. The rolls are held in contact with the bottom of the journal by the springs, and the rotation of the journal causes the rolls to rotate and feed the oil upward, and as the rolls extend the entire length of the journal the latter is thoroughly and evenly lubricated and prevented from becoming excessively heated. Should the oil become hard in cold weather and cling to the rollers, the journal as it becomes warm will melt the oil and be lubricated by the same. Any superfluous oil fed to the journal by the rolls will be returned to the box or reservoir and be again used, so that there is no waste of the lubricant.

The invention has the following advantages: The lubricator, which is simple and comparatively inexpensive in construction, is applicable to car-axles and analogous shafting, and it is adapted to lubricate a journal or bearing thoroughly and uniformly and prevent the same from becoming heated. The springs which are interposed between the bottoms of the hangers and the bottom of the box or reservoir serve to hold the rolls



in contact with the journal and operate also to prevent the upper ends of the sides of the hangers from becoming accidentally disengaged from the studs of the journal bearing  
5 or brass.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

10 What we claim is—

1. A device of the class described, comprising a box or reservoir, feed-rolls arranged in the box or reservoir, stirrups or hangers supporting the box or reservoir and designed to  
15 be interlocked with a journal bearing or brass, and springs interposed between the bottom of the box or reservoir and the stirrups or hangers to hold the rolls against a journal and prevent the stirrups or hangers from becoming disengaged, substantially as described.  
20

2. In a device of the class described, the combination with a journal bearing or brass provided with studs, of a box or reservoir designed to be arranged beneath a journal,  
25 hangers supporting the box or reservoir and

provided with slots receiving the studs, and springs interposed between the bottom of the box or reservoir and the bottoms of the hangers, substantially as described.

3. In a device of the class described, the  
30 combination with a journal bearing or brass provided with headed studs, of a box or reservoir provided at opposite sides with loops or guides, rectangular hangers supporting the box or reservoir and passing through the  
35 loops or guides and provided with keyhole-slots engaging the studs of the journal bearing or brass, and springs interposed between the bottom of the box or reservoir and the lower portions of the hangers, substantially  
40 as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

FRANK S. SMITH.  
SAMUEL J. SMITH.

Witnesses:

J. EARL OGLE,  
HENRY FRITZ.