

(No Model.)

S. J. WALLACE.
CAR AXLE LUBRICATOR.

No. 310,755.

Patented Jan. 13, 1885.

Fig. 1.

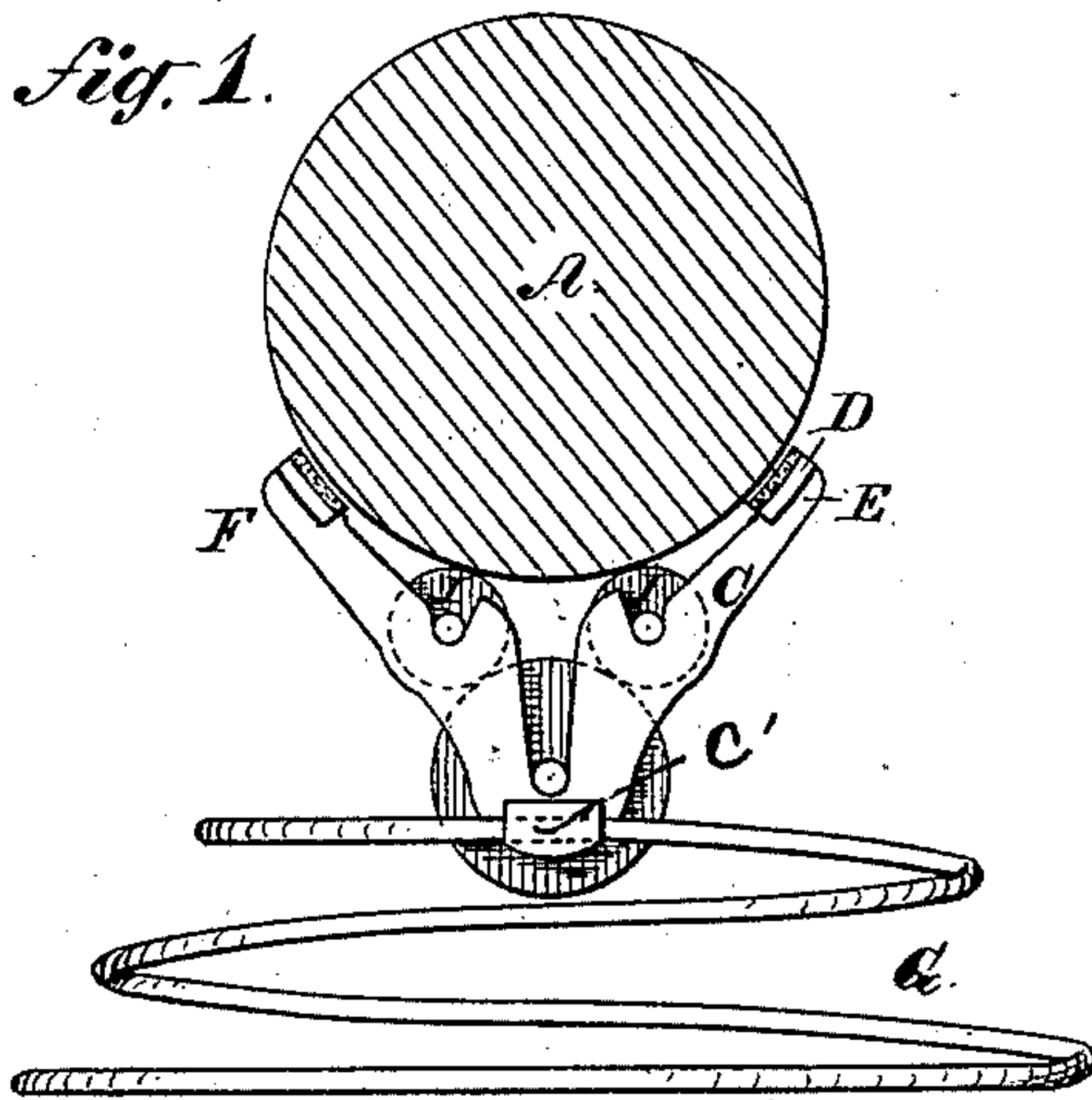


Fig. 2.

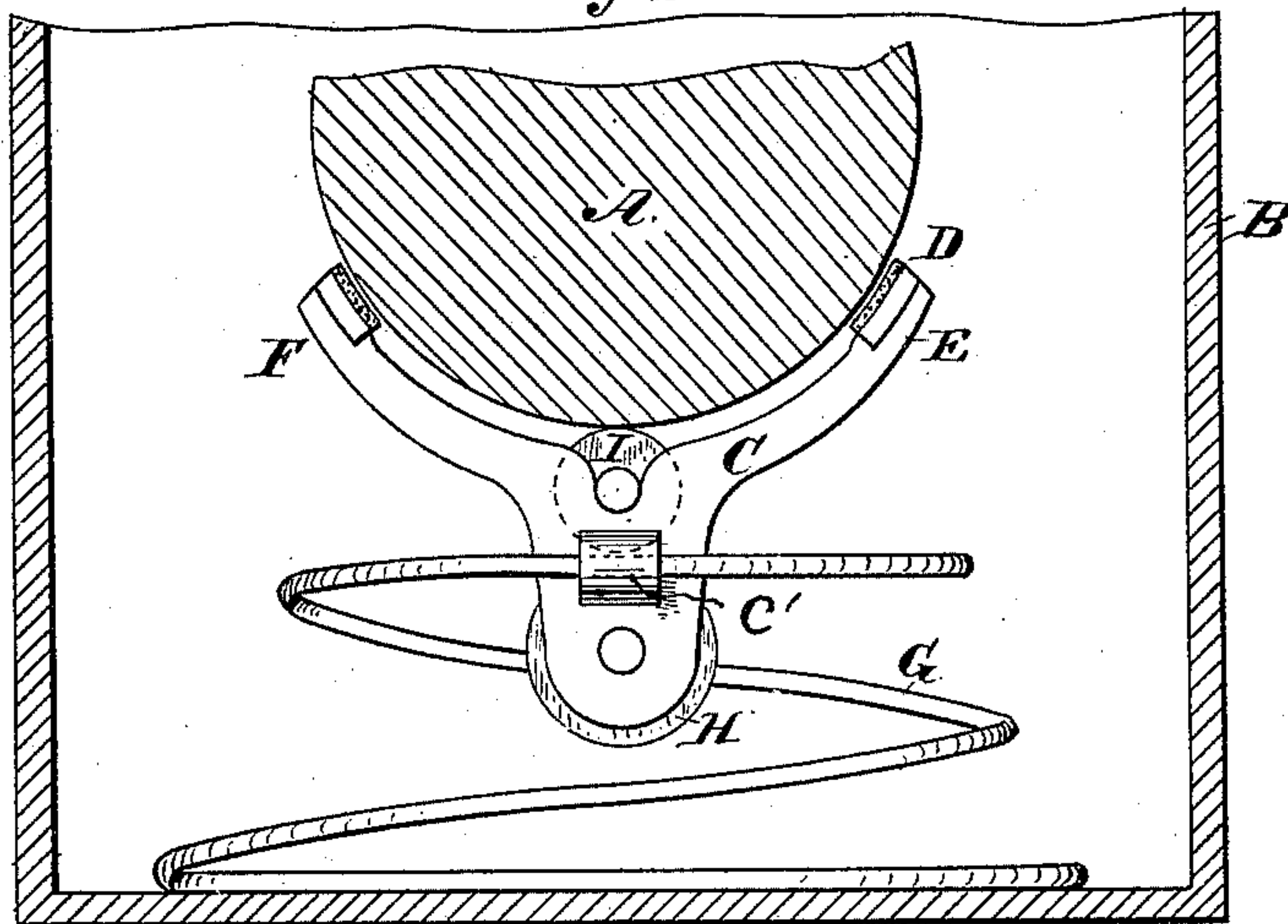
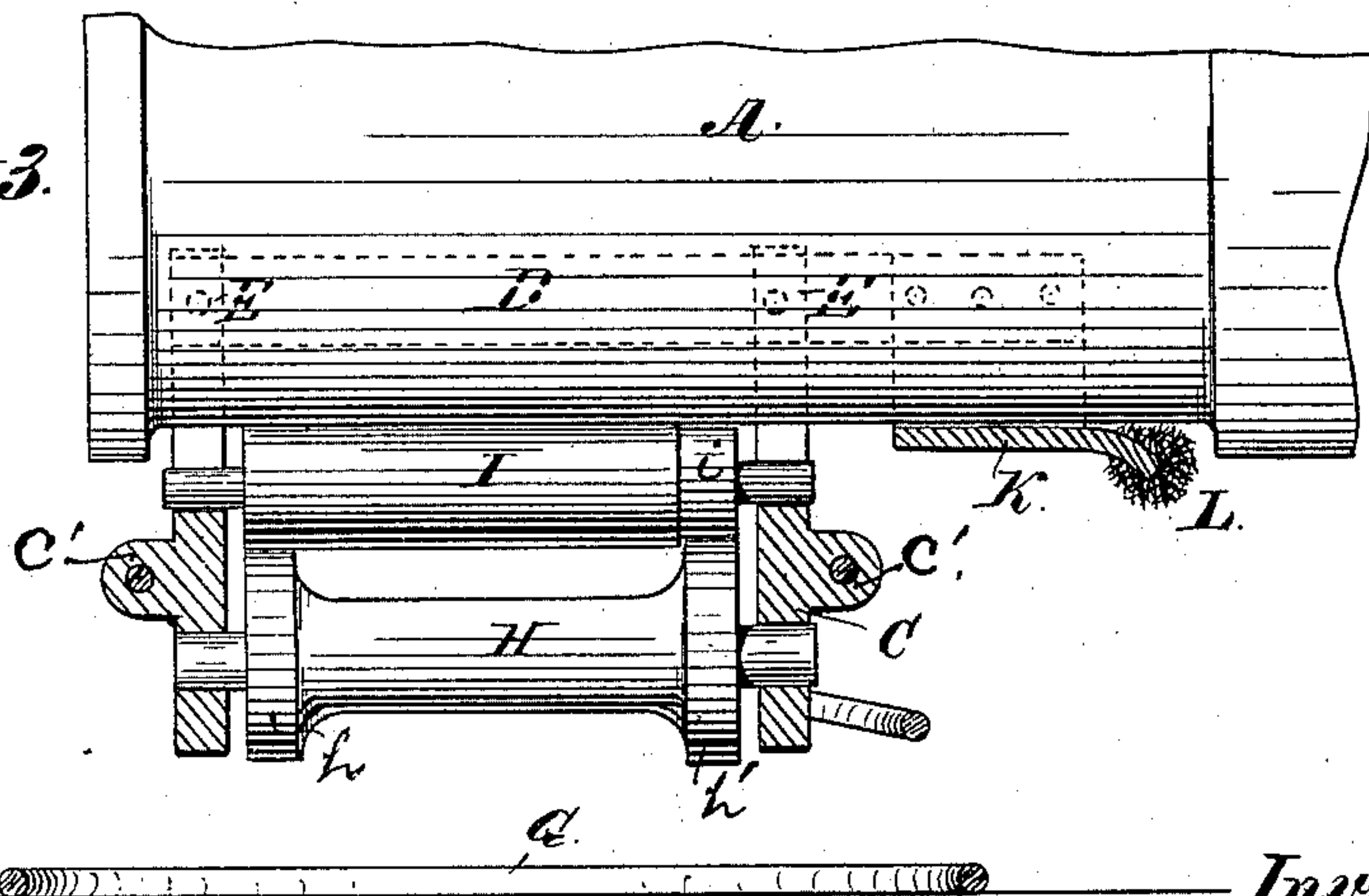


Fig. 3.



Witnesses:

Henry Eitling

David Herrick

Inventor

Saml. J. Wallace,

UNITED STATES PATENT OFFICE.

SAMUEL J. WALLACE, OF KEOKUK, IOWA.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 310,755, dated January 13, 1885.

Application filed October 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. WALLACE, a citizen of the United States, and a resident of Keokuk, Lee county, State of Iowa, have invented a certain new and useful Improvement in Car-Axle Lubricators, of which the following is a specification.

The object of this invention is to lubricate car-axles and other journals; and it consists in an arrangement of parts comprising a receptacle for lubricant under the journal; a pair of rollers connecting in a pile series or train from the lubricant up to the journal, and held up to their working contacts together and with the journal by a spring-frame; a collar at one side under the axle to stay waste of the lubricant, and other features which I make and use, substantially as set forth hereinafter, and as shown in the accompanying drawings, in which—

Figures 1 and 2 are end elevations of the apparatus in varied forms, and Fig. 3 is a cross-section of same at right angles to the planes of Figs. 1 and 2.

The apparatus is made and arranged to fit into an axle-box, B, under the axle-journal A. It is made with a frame having two end pieces, C, supporting rollers H I, and held together by parts D, while held up by the spring-base G, arranged so that the rollers will be turned by and carry up and apply the lubricant to the journal. Many have thought of using rollers and other devices under the journal for this purpose; but such efforts have been attended by various faults and defects, which it is my object to avoid by the construction and arrangement set forth and claimed, while securing important advantages. The end pieces, C, have bearings, which are open above for the journals of rollers H I, lugs *c'*, for the attachment of the base G, and arms E F, reaching up on each side of the journal, where they are connected by bars D. The parts D connect the end parts, C, and are provided with pads suitable to bear against the axle to hold the rollers centrally under the axle as side guards. The parts extend at one end, so as to overhang beyond the other parts, and hold between them a collar, K, which fits up under the axle to catch and wipe off the lubricant to prevent it running along the axle and wasting

out of the axle-box. The collar K is provided with a wiper, L, of wool or other suitable material, and has its outer edge bent down so as not to strike the shoulder of the axle in its endwise movements. The base G is formed of spring-wire, which passes through and is held by lugs *c'*, and is bent into a spiral-spring support having a ring-base at the bottom. The roller I has its journals in open or slotted bearings in frame C, which act as guides to hold the roller in place while supported by the roller H below, to secure firm frictional contact with both the journal and the roller H below. The rollers H I and journal A are arranged to press together in a vertical pile series or train, so that roller H will be held up by the spring-base and support roller I, by which it is turned by friction between their surfaces, and to which it will carry up and apply the lubricant, and so that roller I will be turned by contact with axle A, against which it is pressed by the roller H and the spring-base, and to which it applies the lubricant. The roller H is spool-shaped, with two rims, as shown, or cut away to three rims, or to one only, which dip into the lubricant and carry it up and apply it to roller I. The roller I is straight, as shown, or cut away between its contact portions, and applies the lubricant to the axle. The part *i*, where it comes in contact with the rim of roller H on the side toward the wheel, is cut away to avoid applying the lubricant to the journal direct, and thus to prevent too free wastage along the axle therefrom, the lubricant being applied mainly at the other end. The roller H is cut away to narrow rims with spaces between, which enable it to clear itself of sediment, &c., carried up, instead of choking the rollers, and applying it to the journal—a serious evil found with two continuous rollers.

Several of the parts and arrangements may be varied. Fig. 1 shows roller I duplicated, while Fig. 2 shows it single.

I claim—

1. The combination of a roller, H, supported by a spring-frame, C, with one or more rollers, I, held in open or slotted bearings in the spring-frame, and resting directly upon and supported by the roller H below, substantially as set forth.

2. A journal-lubricator provided with a frame, C, having a spring-base, and holding roller H, supported by its journals therein, and made spool-shaped, or cut away to one or more
5 narrow rims, to carry up and apply a lubricant to roller I, by which it is turned by friction.

3. A journal-lubricator provided with a train of two rollers, H I, having contact be-

tween them upon a depressed space, i, upon the roller in contact with the journal. 10

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two witnesses.

Witnesses: SAML. J. WALLACE.

JAMES J. THORNLEY,
WALTER DELVALLE.