[20.]

Sheet No. 1. 2 Sheets.

EDWARD COLLINS.

Improvement in Devices for Lubricating Car Axle Journals.

No. 118,691. Patented Sep. 5, 1871.

Fig. 1.

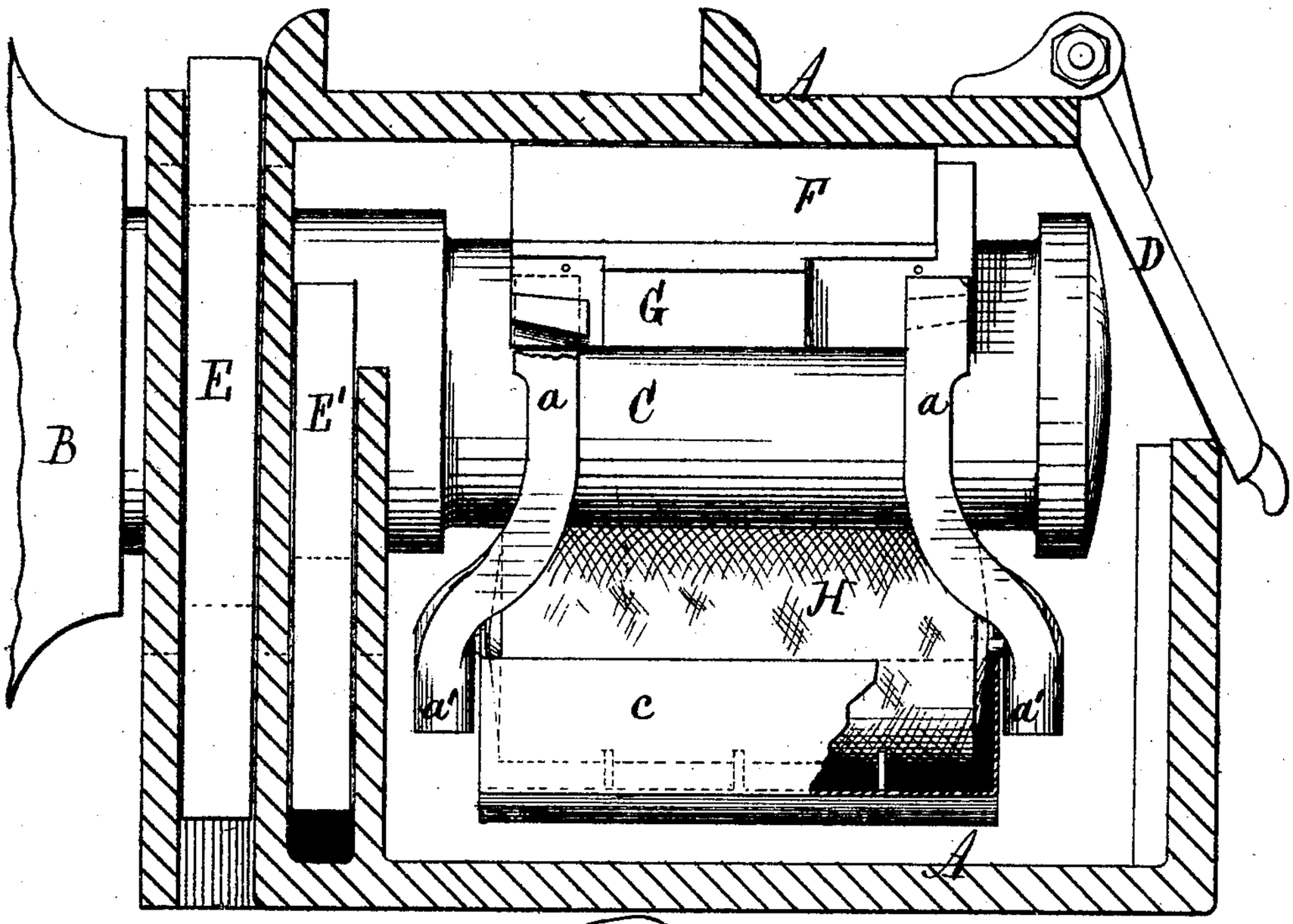
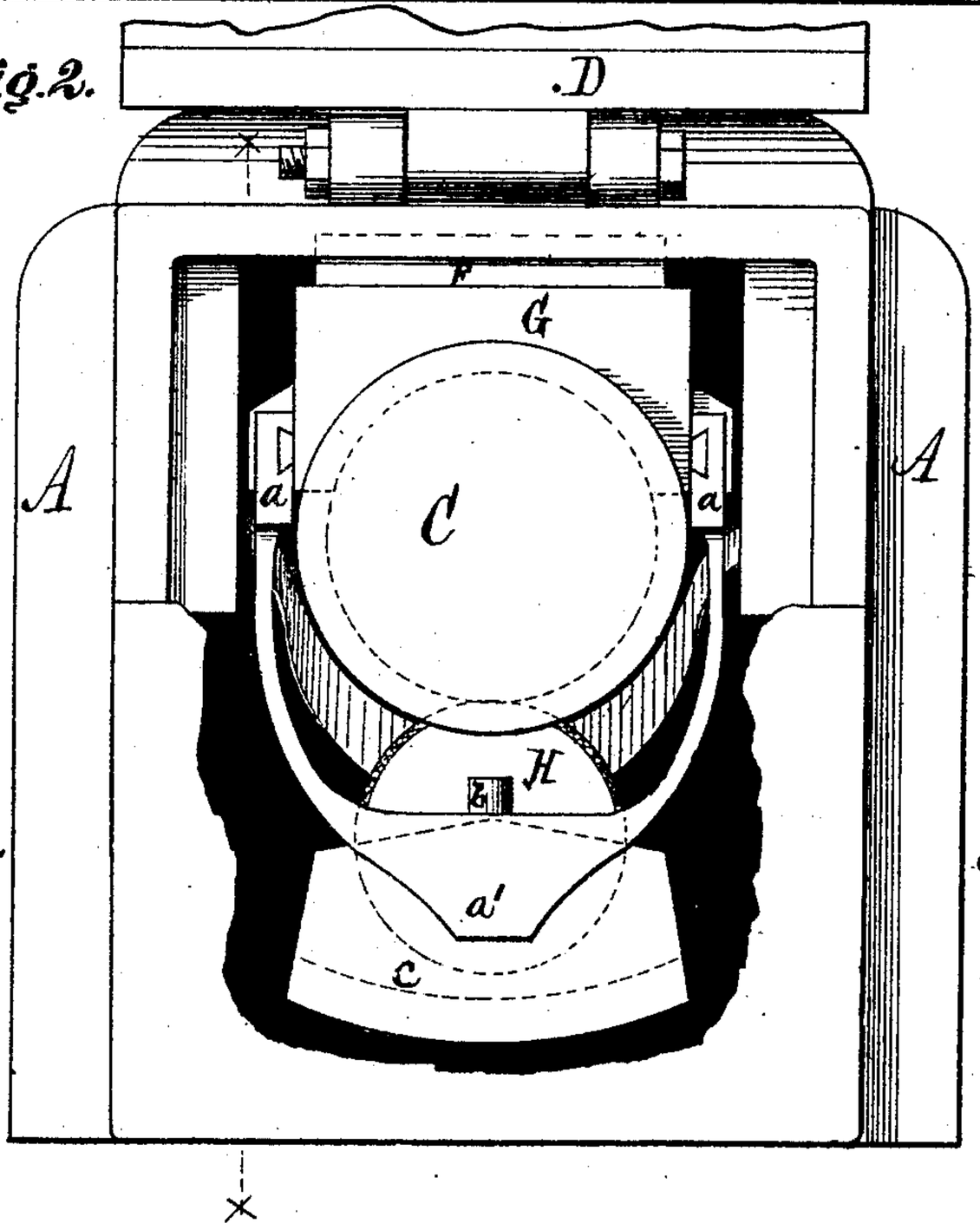


Fig. 2.



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[20.]

Sheet N°. 2. 2 Sheets

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Fig. 3.

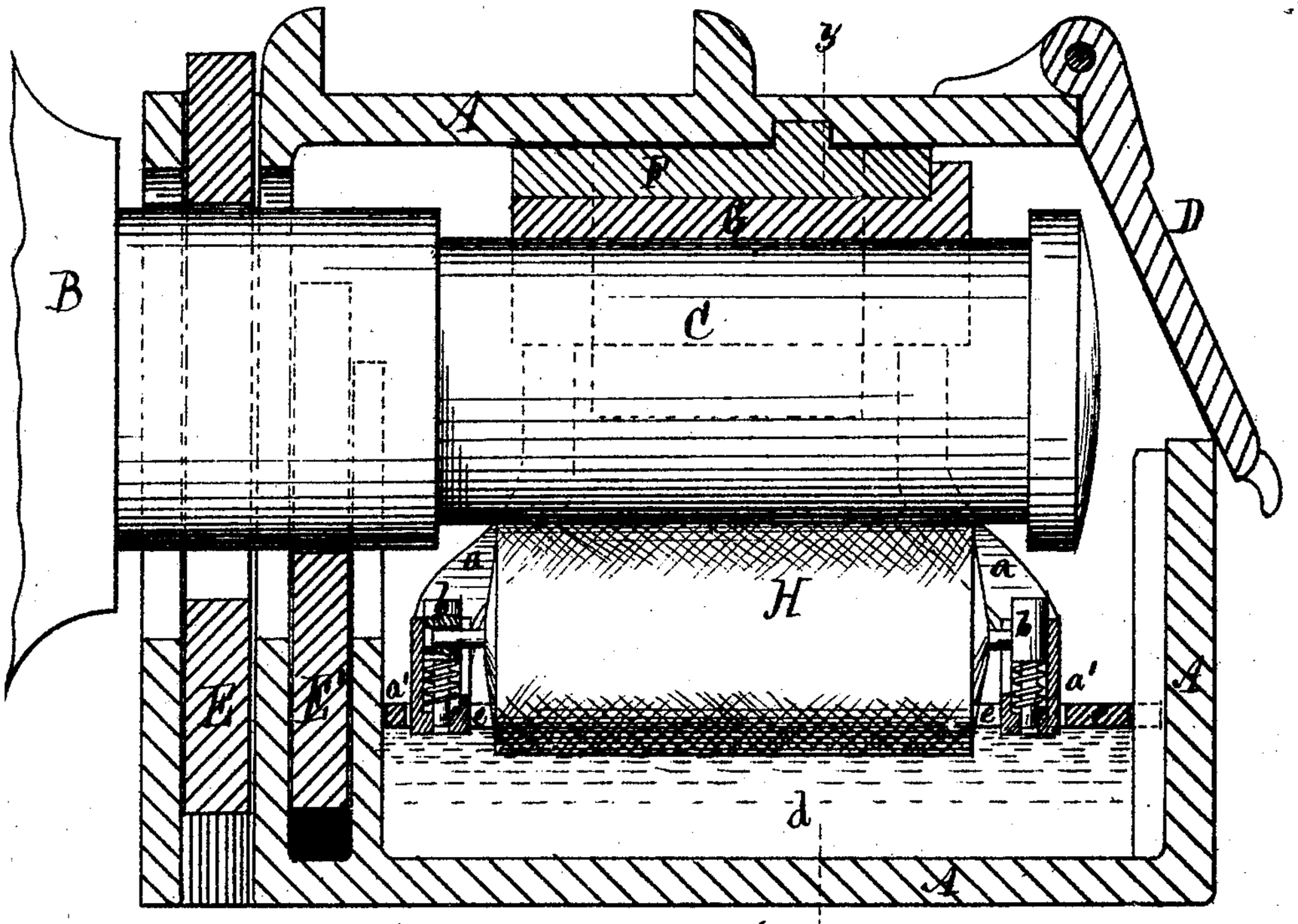
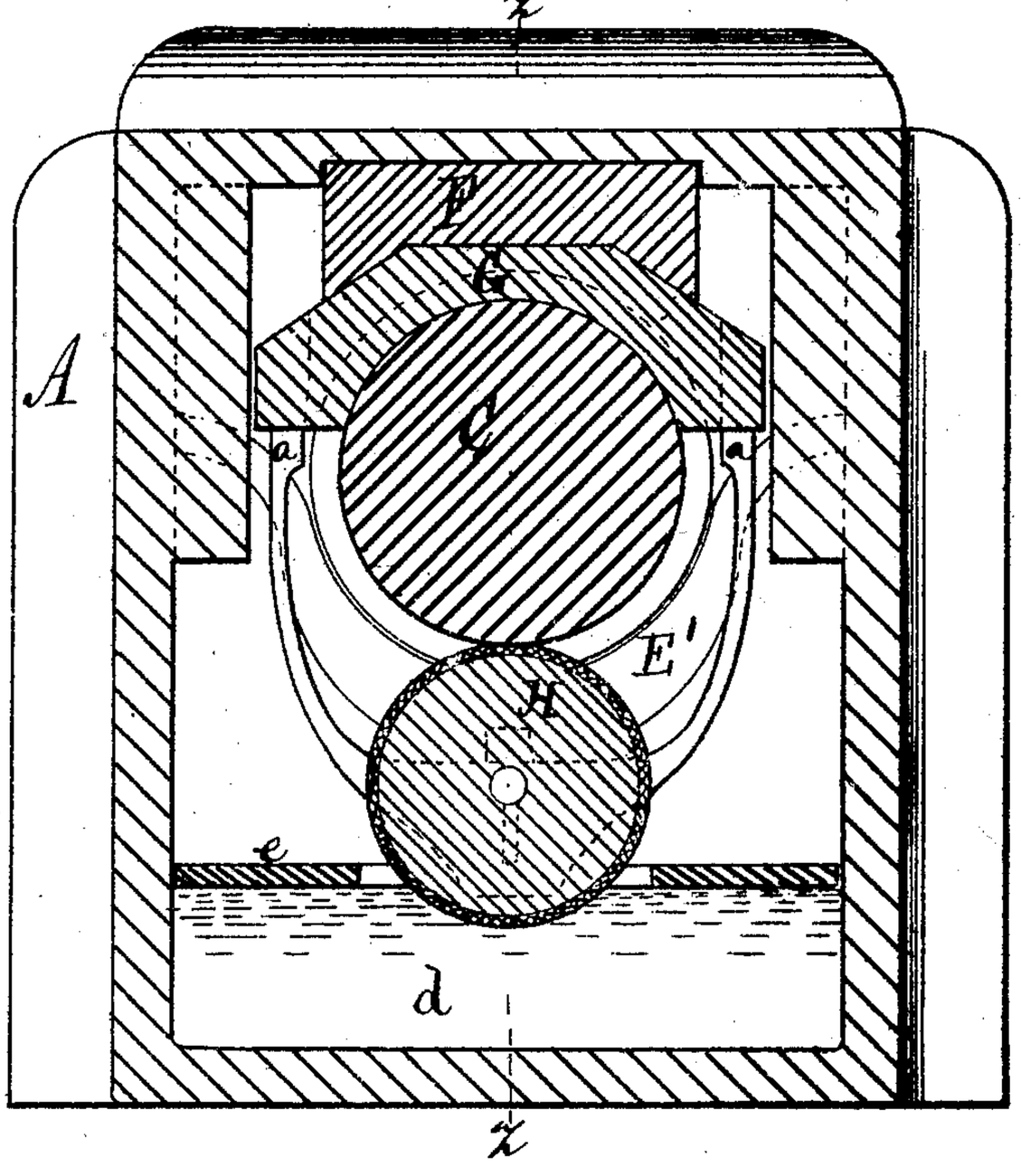


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWARD COLLINS, OF NEW YORK, N. Y.

IMPROVEMENT IN DEVICES FOR LUBRICATING CAR-AXLE JOURNALS.

Specification forming part of Letters Patent No. 118,691, dated September 5, 1871.

To all whom it may concern:

Be it known that I, EDWARD COLLINS, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Device for Lubricating Car-Axle Journals; and I do hereby declare that the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing making part of this specification, and to the letters and figures marked thereon.

The nature of my invention consists in: First, a lubricating roller, covered with felt or cloth, suspended in spring bearings, which are placed in sockets made in curved hangers depending from the bearings. Second, the curved hangers attached to the bearing by dovetailed joints or otherwise, and serving as bearings for the lubricating roller.

In the accompanying drawing, Figure 1 is a side elevation, partly in section, taken in the line *x x* of Fig. 2. Fig. 2 is a view of the outer end, the casing partly broken away to show the interior. Fig. 3 is a partial central sectional view taken in the line *z z* of Fig. 4. Fig. 4 is a transverse section through the line *y y* of Fig. 3.

A represents the casing; B, a part of a car-axle; C, the journal; D, the hinged lid to the box; E E′, double dust-excluding packings, fitting snugly around the shoulder on the journal. F is a key for holding the bearing G more firmly against the periphery of the journal, which several parts, being of any desired construction, need no further description. Curved hangers, *a a*, are secured to the bearing G by dovetailed joints, as seen in Figs. 1 and 2. They are preferably curved in the manner shown, and embrace the journal. In their lower ends *a′ a′* sockets are made to receive coiled or other springs, (see Fig. 3,) upon which loose bearings *b b* rest, the said bearings receiving the gudgeons of a roller, H. This roller H is covered with a soft, fibrous absorbent cloth or felt, and is so hung in its elastic bearings as to always press lightly against the journal. From the gudgeons of the roller H, and partially surrounding it, is suspended a metallic box, *c*, provided with partitions or flanges projecting upward from its bottom, as shown in Fig. 1, which box receives the oil to be supplied to the roller. By providing the partitions in the box *c* the oil is prevented from acquiring too much lateral motion, and is more evenly and better distributed over the roller C, and consequently the journal is kept in better order. Instead of this box *c*, the oil may be simply placed in the axle-box, as at *d*, Figs. 3 and 4; and in order to prevent splashing and waste of oil a float, *e*, is placed over the oil, between it and the roller, an opening or slot being made in the float sufficiently large to allow a portion of the roller to communicate with the oil, and thus obtain a full supply.

As will readily appear, as the axle revolves the contact of the roller with the journal causes the roller to revolve, and thus supply fresh oil to the journal continuously, and at the same time prevents it from clogging or massing on the journal, a sufficient degree of heat being constantly generated to keep the lubricant soft.

In order to more effectually exclude dust, sand, &c., from the journal-box, I provide a double packing, E E′, which at the same time effectually prevents the escape of oil from the journal-box, thus serving a twofold purpose.

Thus constructed, a lubricating axle-box is produced whose many advantages will readily appear to those conversant with the art to which it appertains. It is simple, not liable to get out of order, and is effectual in operation, excluding dust, &c., from the box, and preventing waste of oil, and keeping the journal constantly lubricated.

What I claim as new, and desire to secure by Letters Patent, is—

1. The roller H, covered with cloth or other lubricant-absorbing material, and suspended in spring bearings, *b*, which are placed in sockets made in the lower ends of curved hangers *a a*, depending from the bearing G, constructed and arranged and operating in combination with the journal, substantially in the manner and for the purpose shown and described.

2. The curved hangers *a a*, secured to the bearing G by dovetailed joints or otherwise, and serving as bearings for the lubricating roller, substantially in the manner and for the purpose shown and described.

Witnesses: EDWARD COLLINS.

GEO. W. MCADAM,

H. V. MEAD.