

(No Model.)

J. TIMMS.
CAR AXLE BOX.

No. 350,852.

Fig. 1. Patented Oct. 12, 1886.

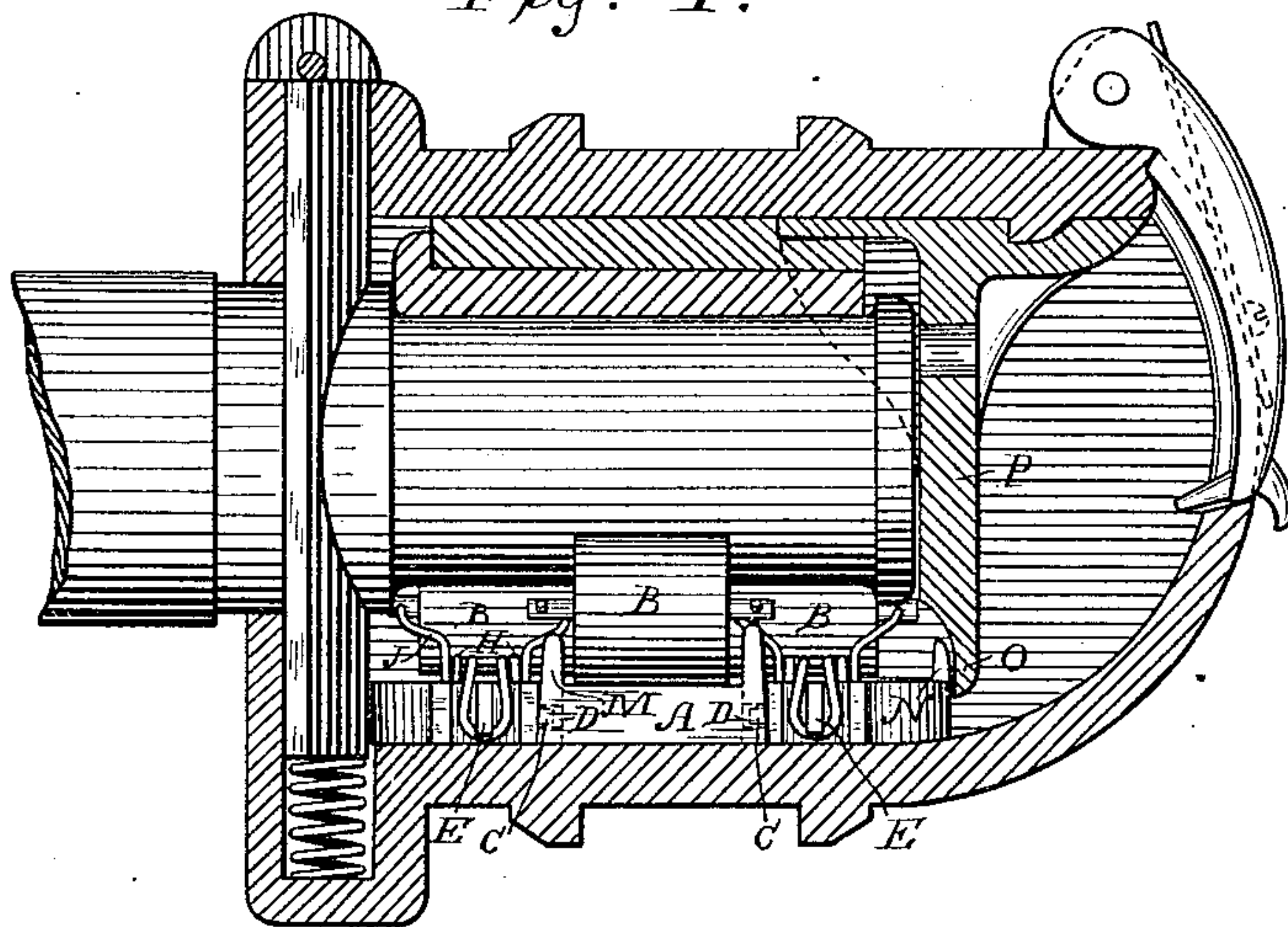


Fig. 2.

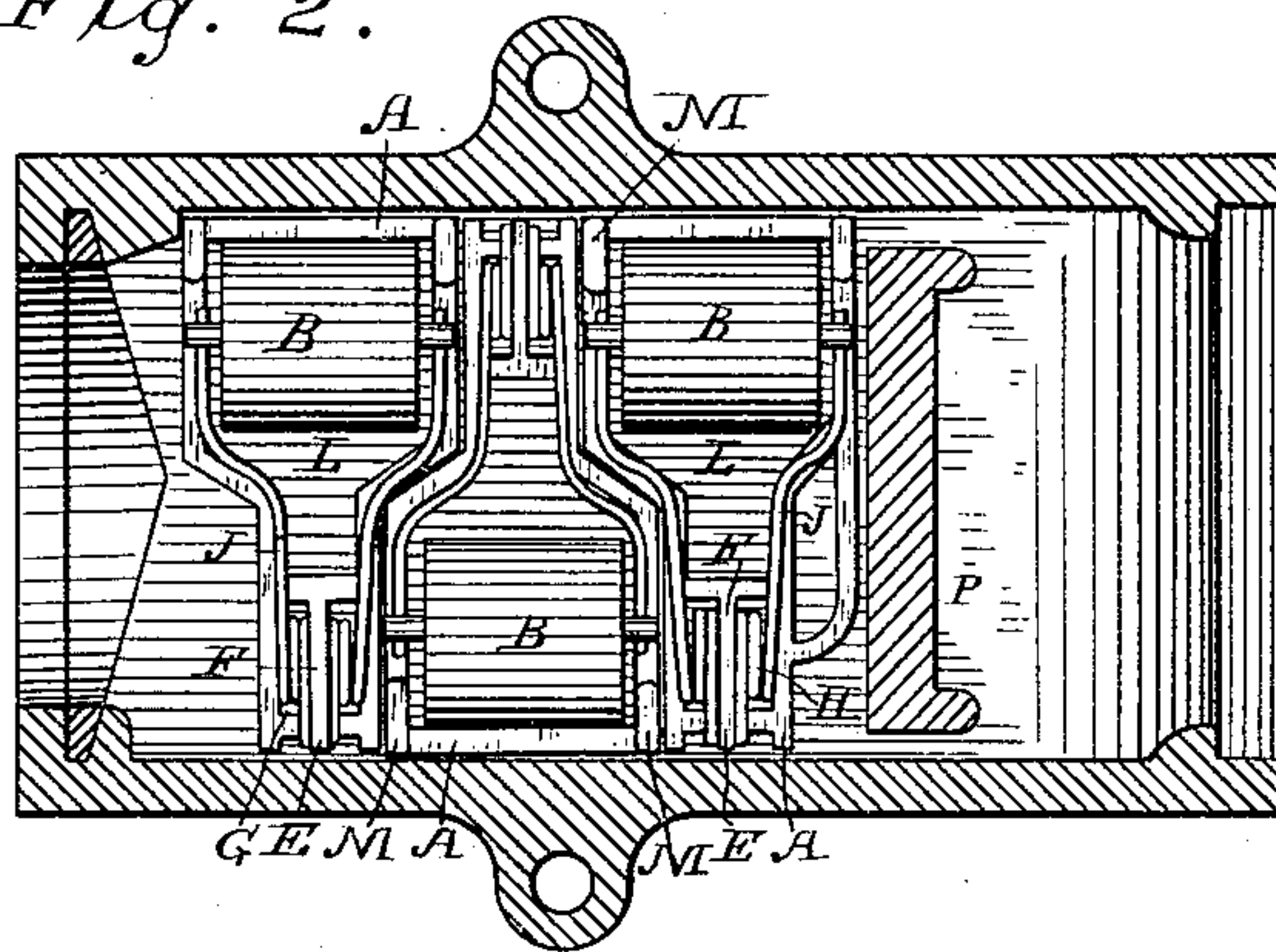
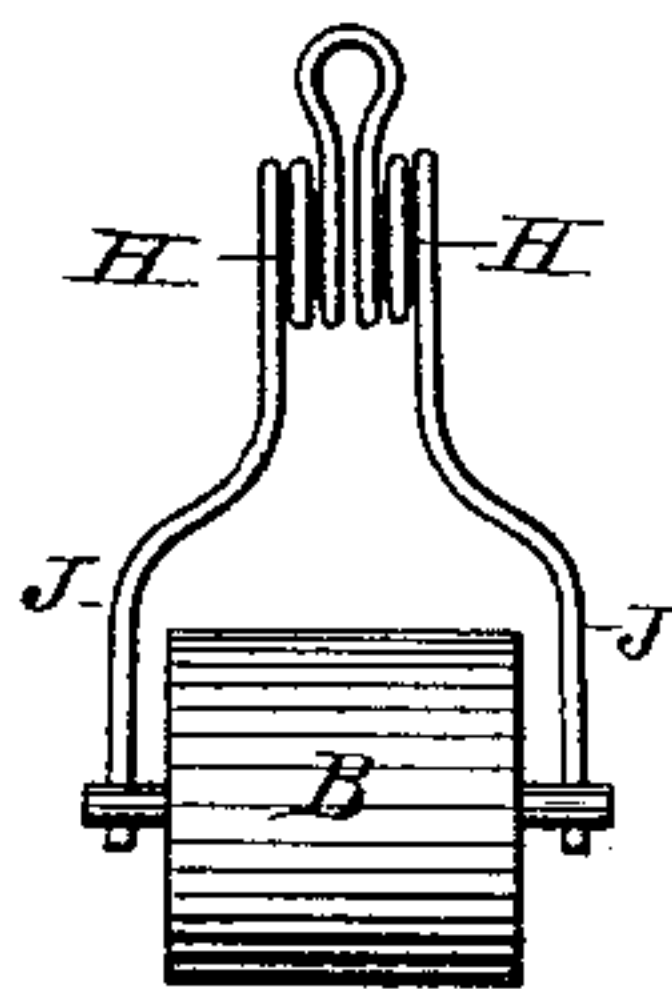


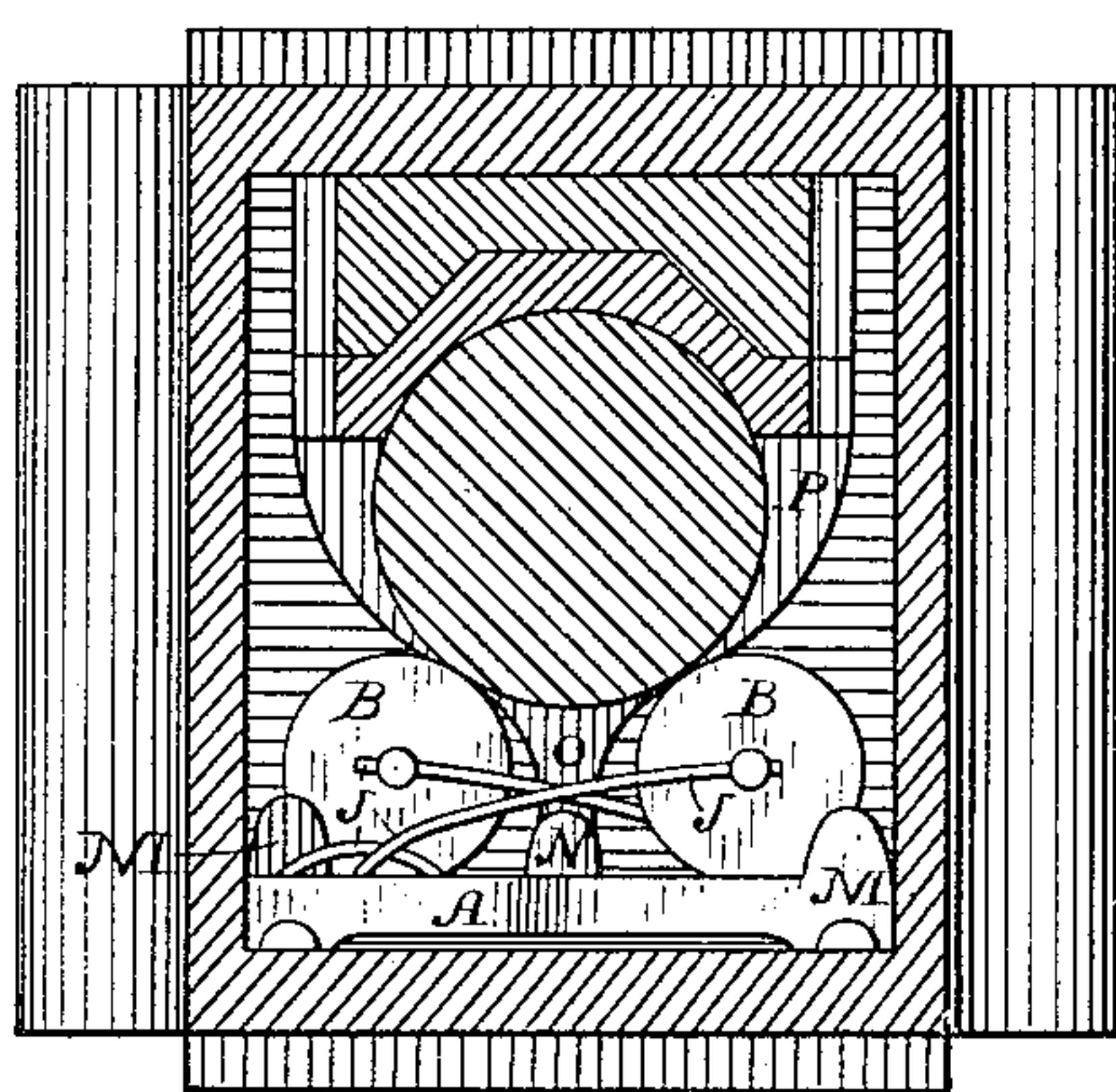
Fig. 4.



WITNESSES

E. A. Newman,
C. M. Newman.

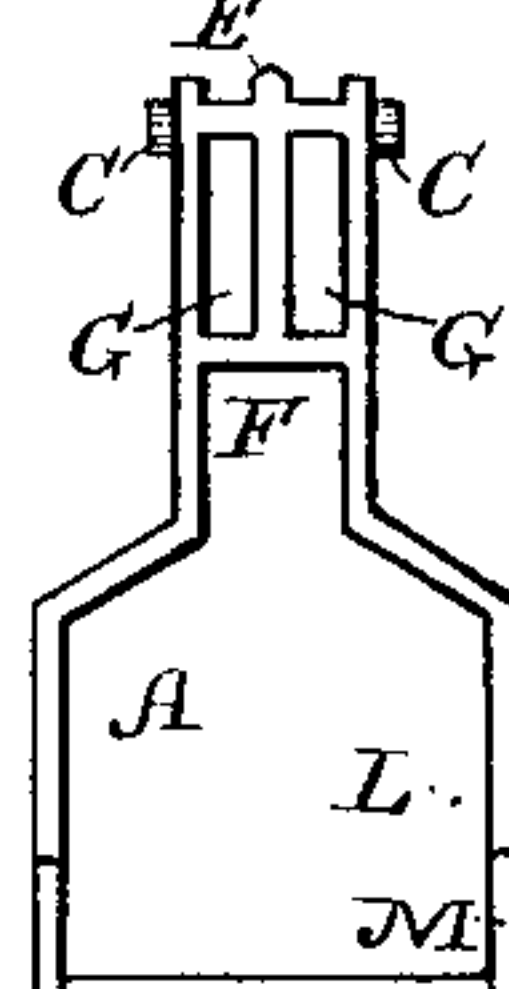
Fig. 3.



By his Attorneys

Baldwin Hopkins & Peyton.

Fig. 5.



INVENTOR

James Timms,

UNITED STATES PATENT OFFICE.

JAMES TIMMS, OF COLUMBUS, OHIO, ASSIGNOR OF ONE-HALF TO B. F. REES, OF SAME PLACE.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 350,852, dated October 12, 1886.

Application filed June 8, 1886. Serial No. 204,490. (No model.)

To all whom it may concern:

Be it known that I, JAMES TIMMS, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful
5 Improvements in Car-Axle Boxes, of which the following is a specification, reference being had to the accompanying drawings.

My improvements relate particularly to what are known as "lubricating-rollers" in car-
10 axle boxes.

In the accompanying drawings, illustrating my invention, Figure 1 is a longitudinal central section of a car-axle box containing my improvements. Fig. 2 is a horizontal section
15 of the same, showing a plan of lubricating-rollers in position. Fig. 3 is a vertical central section, taken at right angles to Fig. 1. Fig. 4 shows one of the rollers and roller-springs detached. Fig. 5 shows one of the skeleton
20 frames detached.

Referring to the letters upon the drawings to aid a description in detail of my invention, A indicates a light skeleton casting, shown detached in Fig. 5. I prefer to employ three of
25 these castings to be nested together, as shown in Fig. 2, so that I may use three lubricating-rollers, B. This enables me to apply my invention conveniently and with advantage in the ordinary-sized car-axle box as in general
30 use. It will be practicable to employ four or even more rollers with proper supporting-frames; but that would be unnecessary, because three are sufficient. Each one of these skeleton frames, it will be observed, is provided
35 with lugs C upon opposite sides of its narrow end, and with recesses D on opposite sides of its wide end. These lugs and recesses serve to interlock and securely nest the skeleton frames, so that under the strain of the springs
40 they cannot tilt and get out of place. Each skeleton frame is also provided at its narrow end with a hook, E, and a partition, F, dividing and projecting upward from the spring-coil recess G for the roller spring-coil H. The
45 partition is for the purpose of staying and preventing the coil from twisting out of place under strain, and is useful, but it might be dispensed with, although I prefer to use it. The roller-springs J being hooked upon the hooks
50 E, the coils I will fit in the recesses G, and the upper parts of the springs will bear the roll-

ers upward against the under side of the journal to be lubricated, while the lower portions of the rollers will travel through the oil in the box and carry it up constantly and in sufficient
55 quantities to lubricate the journal. The rollers are kept in their places in the large roller-recesses L, so that they will not slide endwise and bear against the spring ends which support them and cause injurious wear. 60

Lugs or stays M are provided for the purpose of holding the rollers in place against end movement and wear of the springs in case the rollers should rise above the general level of the upper edges of the skeletons. 65

In one of the skeleton frames, which is designed to be used next the outer end of the axle-box, I have provided a spur, N, which is adapted to furnish a stop or bearing for the central downward projection, O, upon the end
70 bearing, P, for the journal, this end bearing being in general character similar to that shown in my United States Patent No. 319,643, and that also shown in my pending United States application, Serial No. 197,862. In boxes
75 where the said end bearing is not used it will not be necessary to provide the spur N, as other means would be provided for holding the skeleton frames from endwise movement; but I
80 prefer to use the end bearing for the journal having the downward projection, as shown, and also the spur N.

Having thus described my improvements, what I claim to be new, and desire to secure by Letters Patent of the United States, is— 85

1. A skeleton frame or support for use in a car-axle box, provided with the lugs C and recesses D at their opposite ends, substantially as set forth.

2. A skeleton roller frame or support for
90 use in a car-axle box, having the large recess, L, at one end and the hook E and smaller recess, G, at the other end, with or without the partition F, substantially as set forth.

3. A skeleton roller frame or support for
95 use in a car-axle box, having the large recess, L, and lugs or stays M at one end and the hook E and smaller recess, G, at the other end, with or without the partition F, substantially as set forth. 100

4. The combination of three skeleton frames nested together firmly by means of lugs and

flanges, and carrying the three rollers and their springs, substantially as set forth.

5 5. The combination, with a nest of skeleton frames, of the end bearing provided with a downward projection, O, and the lug or stay N on the outer skeleton frame, substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

JAMES TIMMS.

Witnesses:

MARCUS S. HOPKINS,
D. DAVIDSON.