2 Sheets—Sheet 1

W. D. ARNETT.

Disconnecting Car-Axle Boxes from Pedestals

No. 20,535

Patented June 15, 1858.

Fig A.

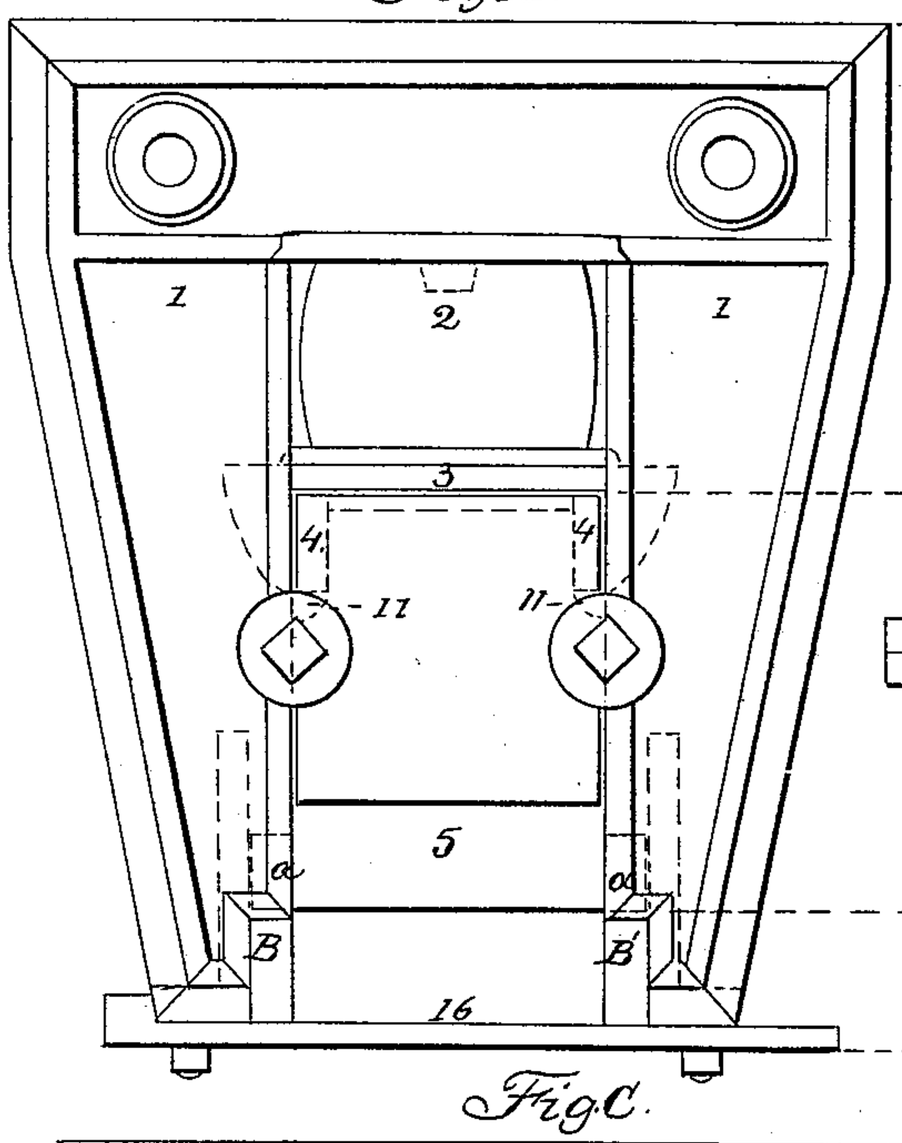


Fig B.

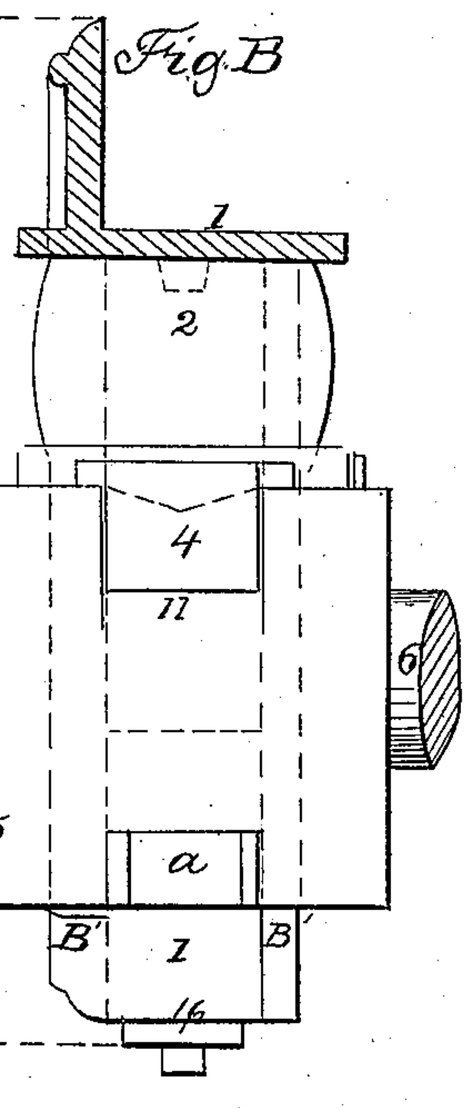


Fig C.

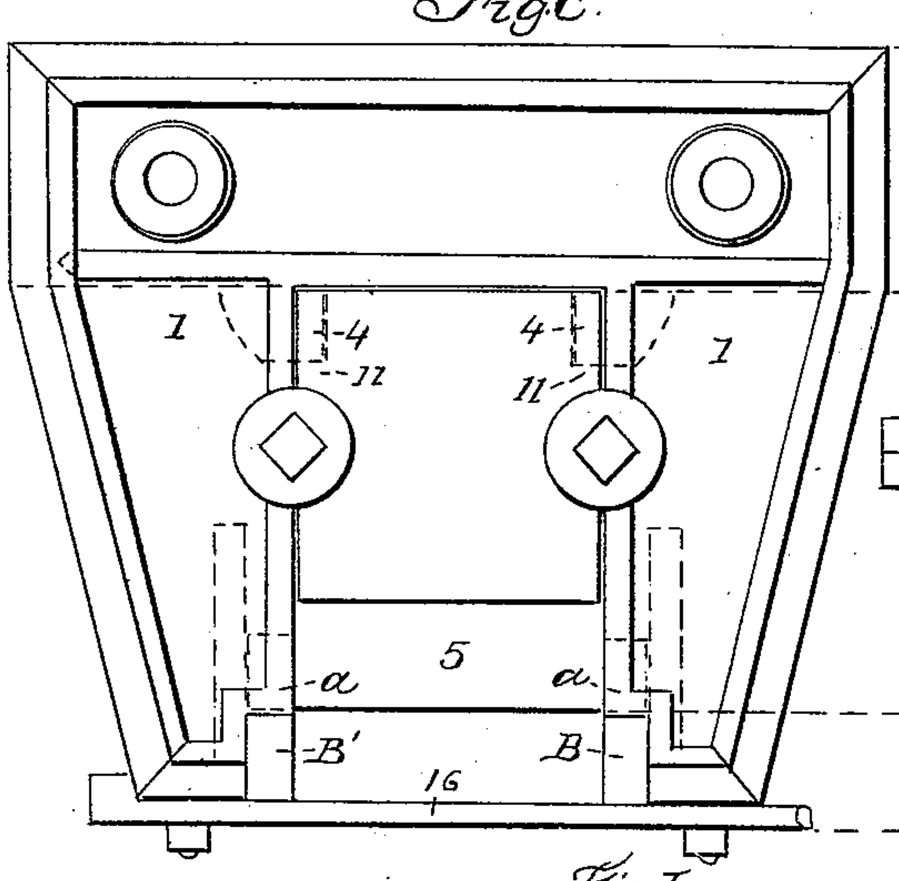


Fig D.

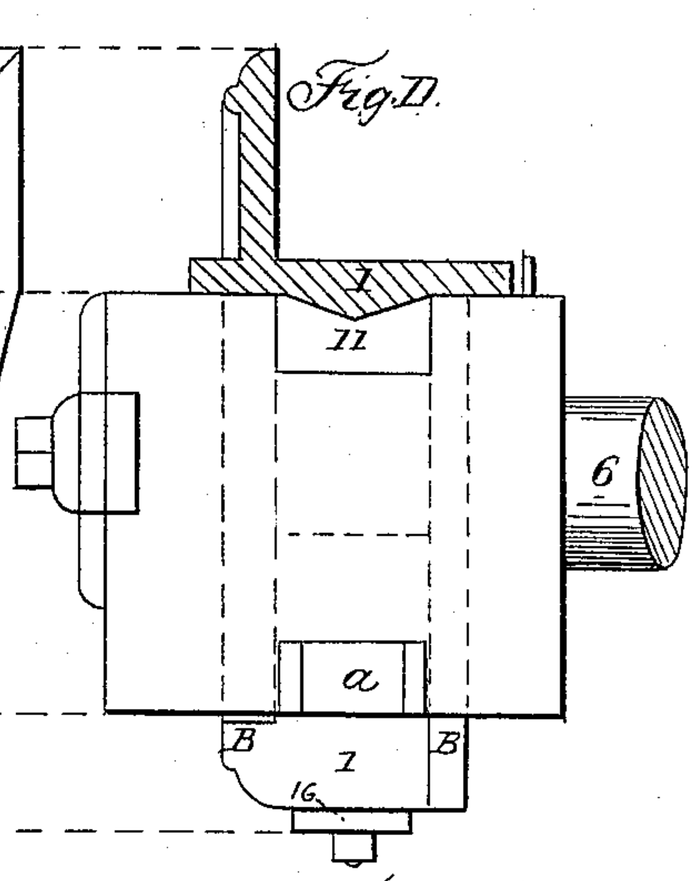


Fig J.

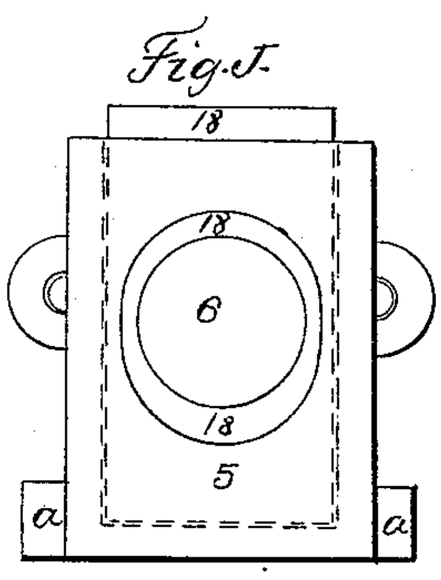


Fig L.

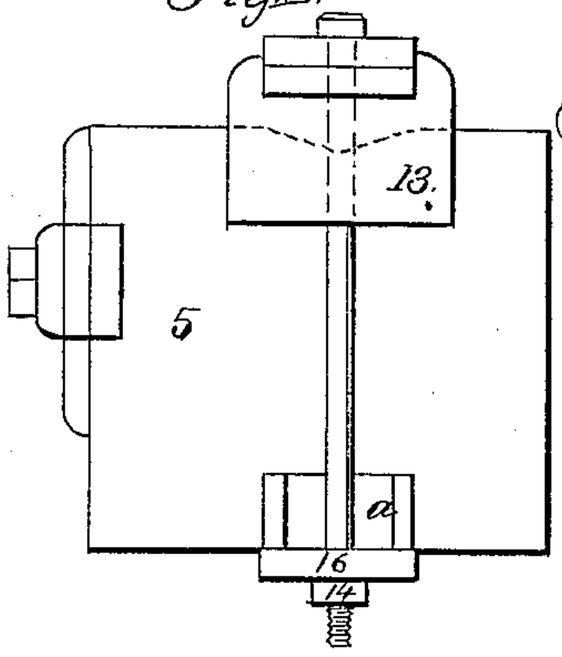
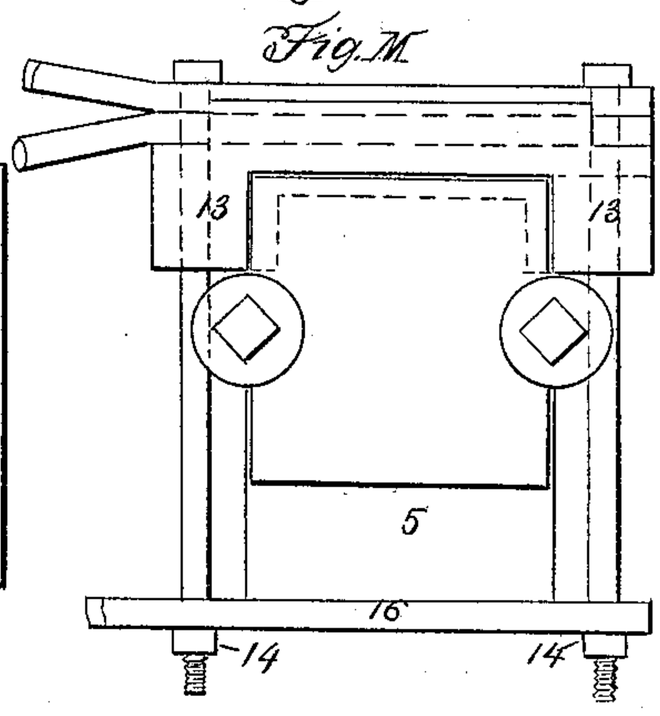


Fig M.



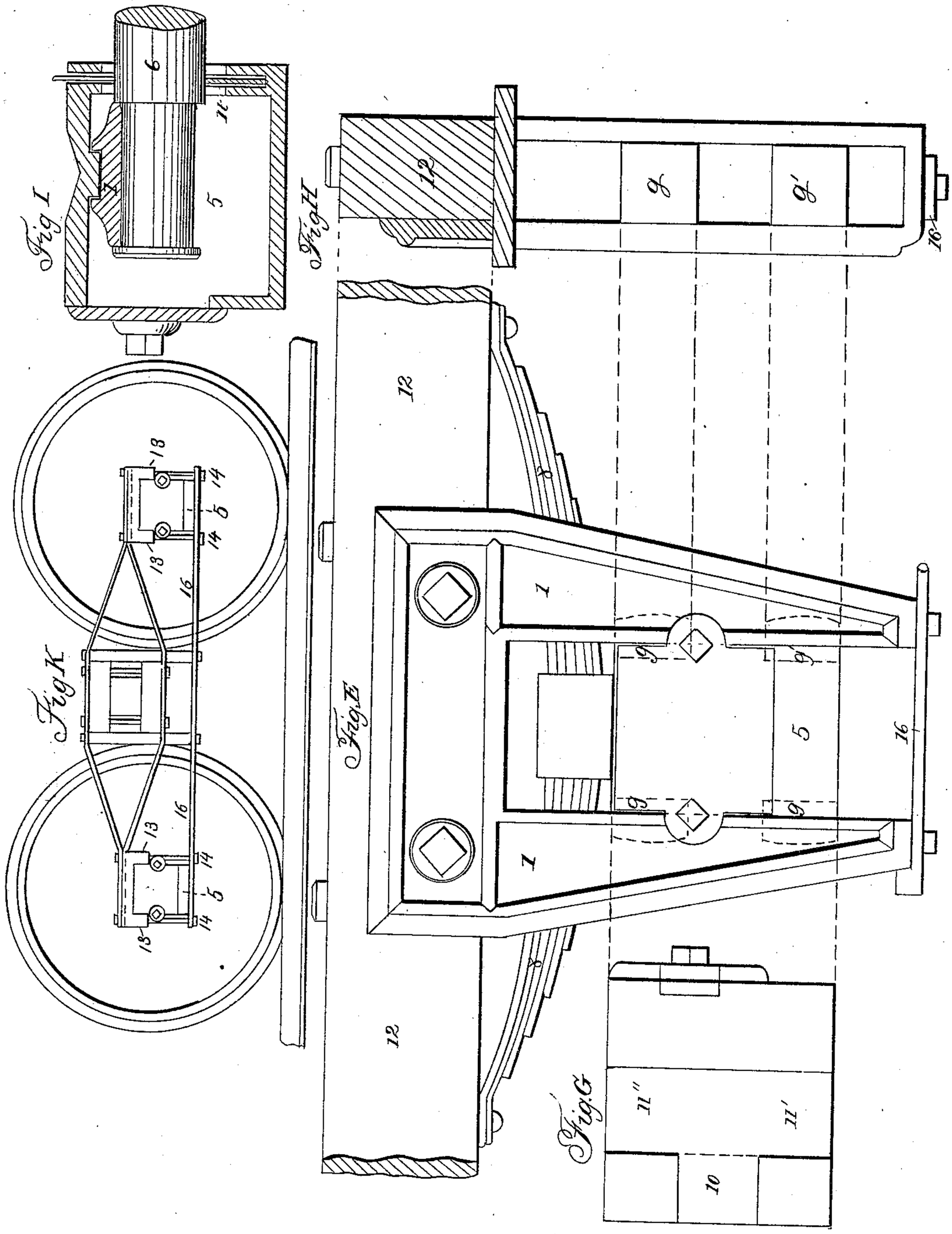
N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

2 Sheets—Sheet 2

W. D. ARNETT.

Disconnecting Car-Axle Boxes from Pedestals

No. 20,535. Patented June 15, 1858.



UNITED STATES PATENT OFFICE.

W. D. ARNETT, OF CHICAGO, ILLINOIS.

DISCONNECTING CAR-AXLE BOXES FROM PEDESTALS.

Specification of Letters Patent No. 20,535, dated June 15, 1858.

To all whom it may concern:

Be it known that I, WILLIAM D. ARNETT, of Chicago, Cook county, Illinois, have made a new and useful Improvement for Disconnecting Car-Axle-Box Cases from the Pedestals or Jaws; and I do hereby declare that the following is a full, clear, and exact description of the improvement, reference being had to the accompanying drawings, and to the figures and letters of reference marked thereon, and made to form part of this specification.

Like figures and letters refer to similar parts of the improvement.

This improvement will be found to be a broad additional improvement, to my invention patented May 27th 1856, and I design here to show how the improvement can be applied to all conditions and structures of pedestals or jaws of railroad cars for disconnecting the axle box-cases, from them without removing the stay bar from the lower part of the pedestal or elevating the car high enough to take the box-case out from the lower part of the pedestal, all of which is effected by a combined arrangement of lugs and recesses made in the box-cases and pedestals to suit the different structures of pedestals used, and springs employed.

To enable others skilled in the art to make and use my improvement I will proceed to describe its construction and operation by referring direct to the accompanying drawings.

In the following specification I will describe the application of the improvement to one style or structure of pedestal at a time.

Figure A is a front elevation of a pedestal, and Fig. B, is a longitudinal sectional elevation of the same showing the side of the box. The improvement that I patented in 1856, is fully represented in Figs. A and B, which is the rubber plate 3, furnished with lugs 4, 4, and on which plate, the spring 2 rests. The plate is placed on the top of the box case (5) and the lugs 4, are made to fit in the recesses (11, 11,) in the sides of the box-case, and at the same time between the flanges of the pedestals, which presents the box-case (5,) from slipping out. The box case thus attached to the pedestal with the lugs 4, 4, on the plate (B,) is found defective in some instances, for when the camel-back box, (7) as represented in Fig. I, is used it causes the box-case to rock or vibrate when only held at the top by the lugs 4, 4, and to present the vibrating of the box case, the lower part of it is furnished with lugs (*a*, *a*,) which are made to fit between the flanges (B, B,) of the pedestals and thereby hold the lower part of the box-case firm and hence present its vibrating.

In order to get the box-case properly in the pedestal, the front flanges B′, of the pedestals at their lower part are cut away to admit of the lugs (*a*, *a*,) passing in and up between the said flanges as represented.

Figs. (C and D,) are different views of a pedestal like the one represented in Figs. (A, and B,), with the exception of being made shorter, and in place of the spring being put between the top of the box case and pedestal the box-case itself comes up against the top and inside of the pedestal, and in place of using the plate B furnished with lugs, the lugs (4, 4,) are cast to the pedestal at the top as represented. But the same kind of a box-case is used that is employed in Figs. (A, and B,) with lugs (*a*, *a*,) cast on each side of the case at its lower part, and a portion of the flanges (B′, B′,) of the pedestal is cut away, to get the box-case in and out of the pedestal without removing the stay bar (16).

Figs. E, G, and H is an application of the improvement in a different form compared with what has been described for accommodating it to pedestals when the half elliptical steel spring is used in place of the rubber spring as before described. The pedestal in this case is furnished with four lugs (9 9 9′ 9′), two on each side of the opening in the pedestal, in which the box case is made to slip and the case (5) is furnished with two grooves (11′ 11′) and (10). The grooves 11′ 11′ is made vertical in the sides of the box-case and the groove 10 horizontal, and made to join the vertical groove 11′ and the manner of attaching the box case to the pedestal is by slipping the case into the pedestal by having the lower lugs 9′ 9′ on the pedestal to slip into the groove (10) on each side of the case, and when the box is slipped in far enough so that the whole of the lugs (9′ 9′) will be in the groove (11″ 11′) then elevate the box case and the lugs (9 9) will be above the groove (10) and the lugs (9′ 9′) will be below the groove (10) and will prevent the box from slipping out laterally, and can thus be placed in, and

taken out of the pedestal without removing the stay bar (16).

12 is a part of the truck timber to which the pedestal is attached with bolts as usual and 8 8 is the steel spring.

Figs. K, L, and M represent the improvement attached to an iron truck. (13, 13,) is a flange furnished with lugs (4, 4,) and attached to the upper bars of the truck as fully represented in Fig. (K,) the box (5) (the same as is used in the first two pedestals described) is placed up against the flange (13), so that the lugs (4, 4,) will come in the recesses made in the sides of the box-case, and the stay bar (16) holds the box to its place, with the nut and screw bolts (14 14) and thus prevents the box case from slipping laterally, and when it is required to take the box from the truck the nuts (14) are unscrewed sufficiently to let the stay bar (16) fall sufficiently to free the box case from the lugs (4, 4,) on the flange, and then the case can be drawn out to one side.

The various applications of my improvement to the different structures of pedestals and trucks as described do not change the nature of the improvement, which continues the same. But only shifts it from one part of the box-case and pedestal to another.

At the back portion of the box case as represented in Fig. I, there is a chamber (17,) made by casting a partition on the inside of the box-case for the purpose of placing a piece of leather (18) in it to exclude the dirt and dust from the inside of the box, by fitting the leather (18) around the axle (6) which cuts all direct communication off from the outside to the inside of the box-case. But the leather is left free to move up and down in the chamber (17) with the wave of the axle and at the same time give no chance for the dirt or dust to enter the box-case, and the leather is in no wise screwed or attached to the axle or box-case, as is commonly done in several cases. The chamber (17) in this instance is the only means employed for holding the leather to its place.

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

The lugs, recesses and grooves arranged with the pedestals and box-cases, for disconnecting the box cases, from the sides of the pedestals, as set forth in the foregoing specifications, and for purposes described.

WILLIAM D. ARNETT.

Witnesses:

I. E. CHURCH,

D. T. WILSON.