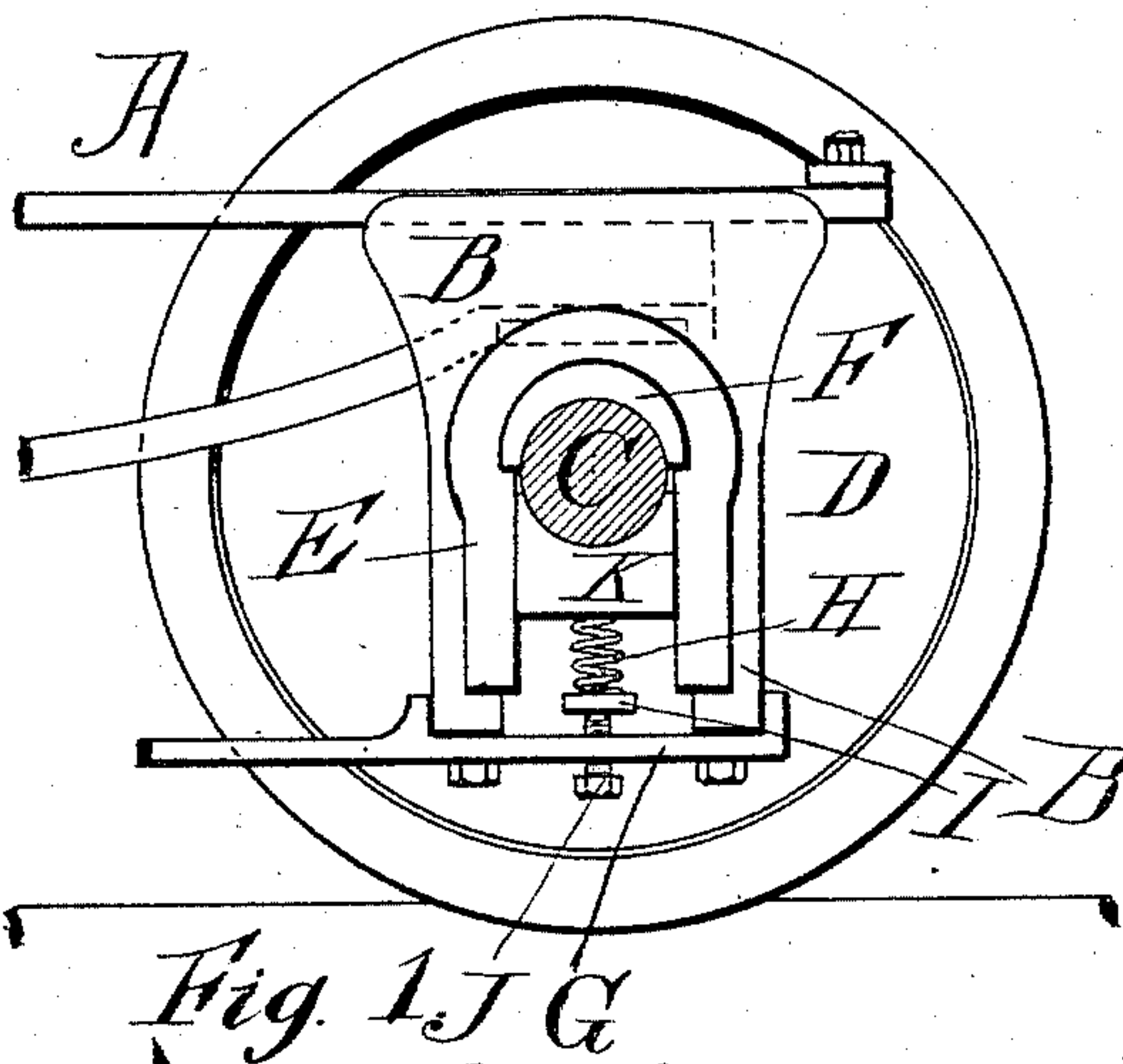
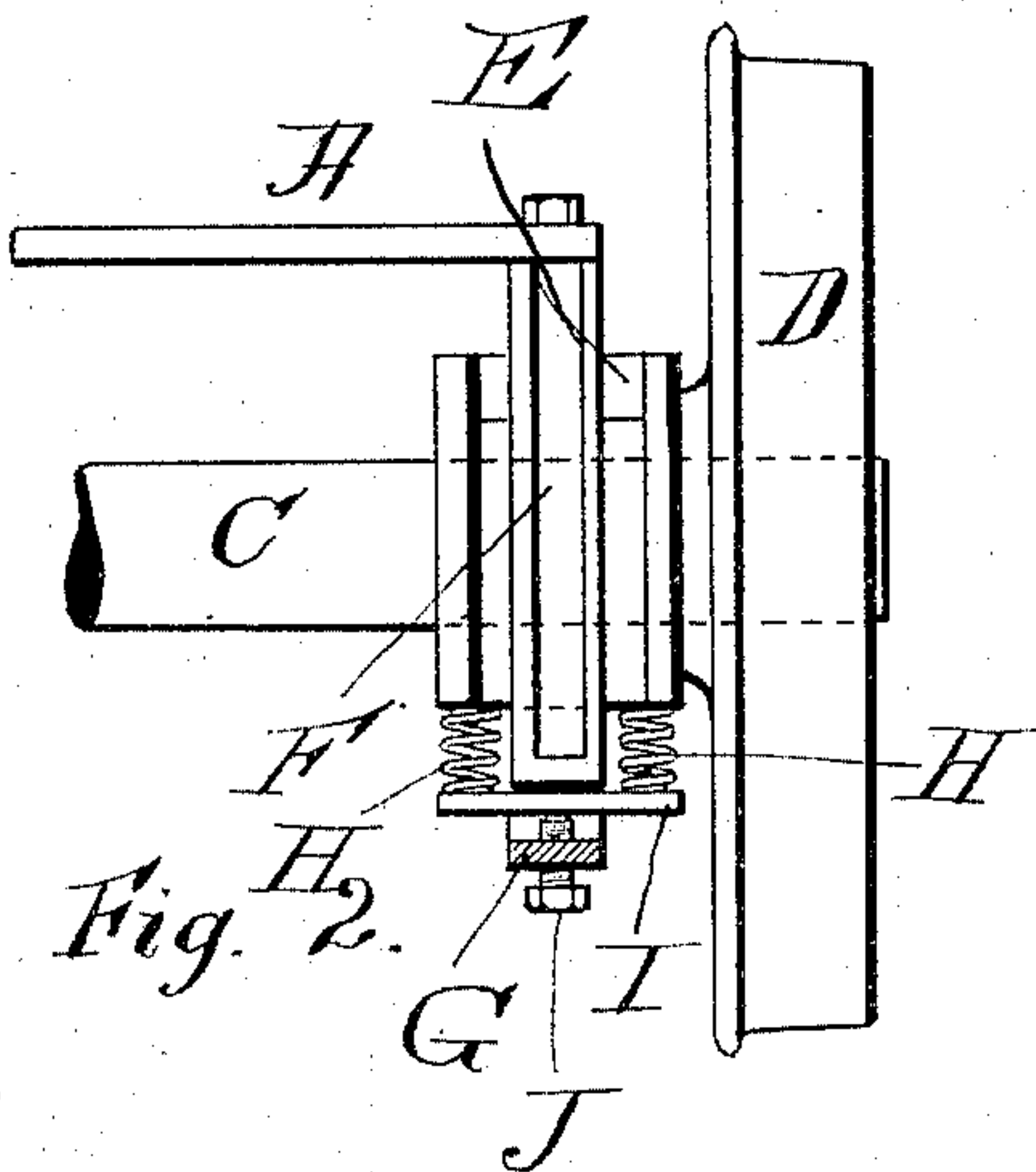
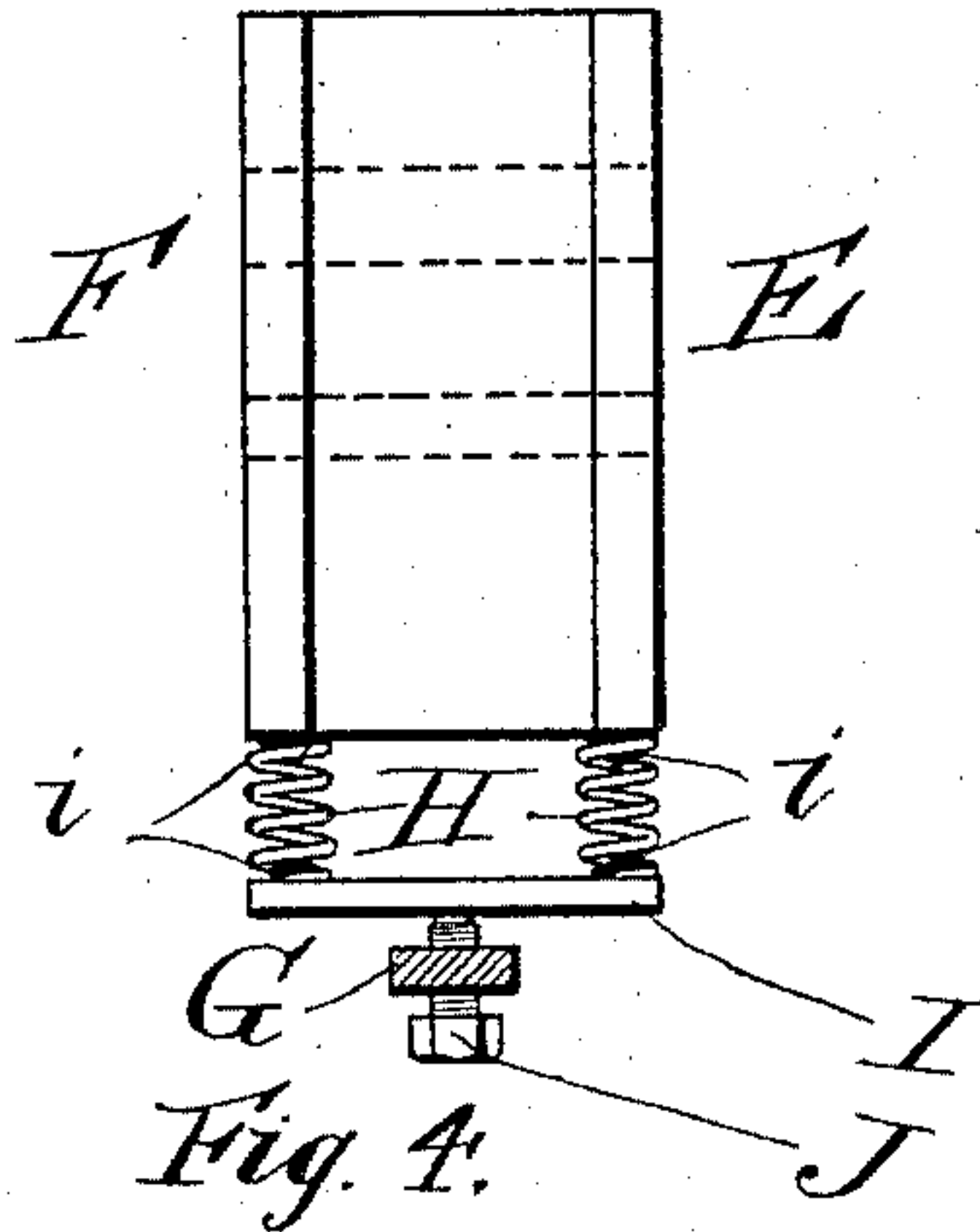
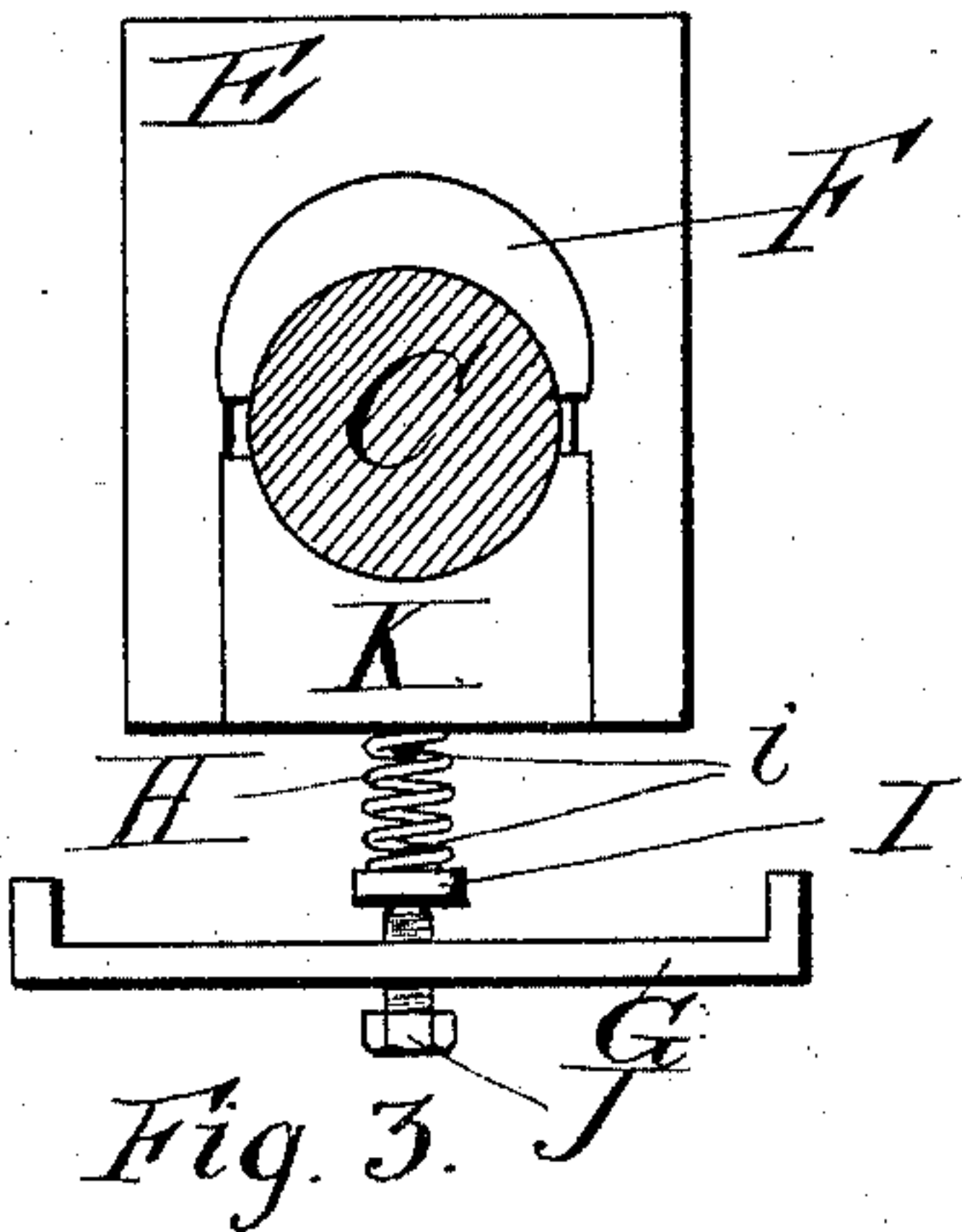
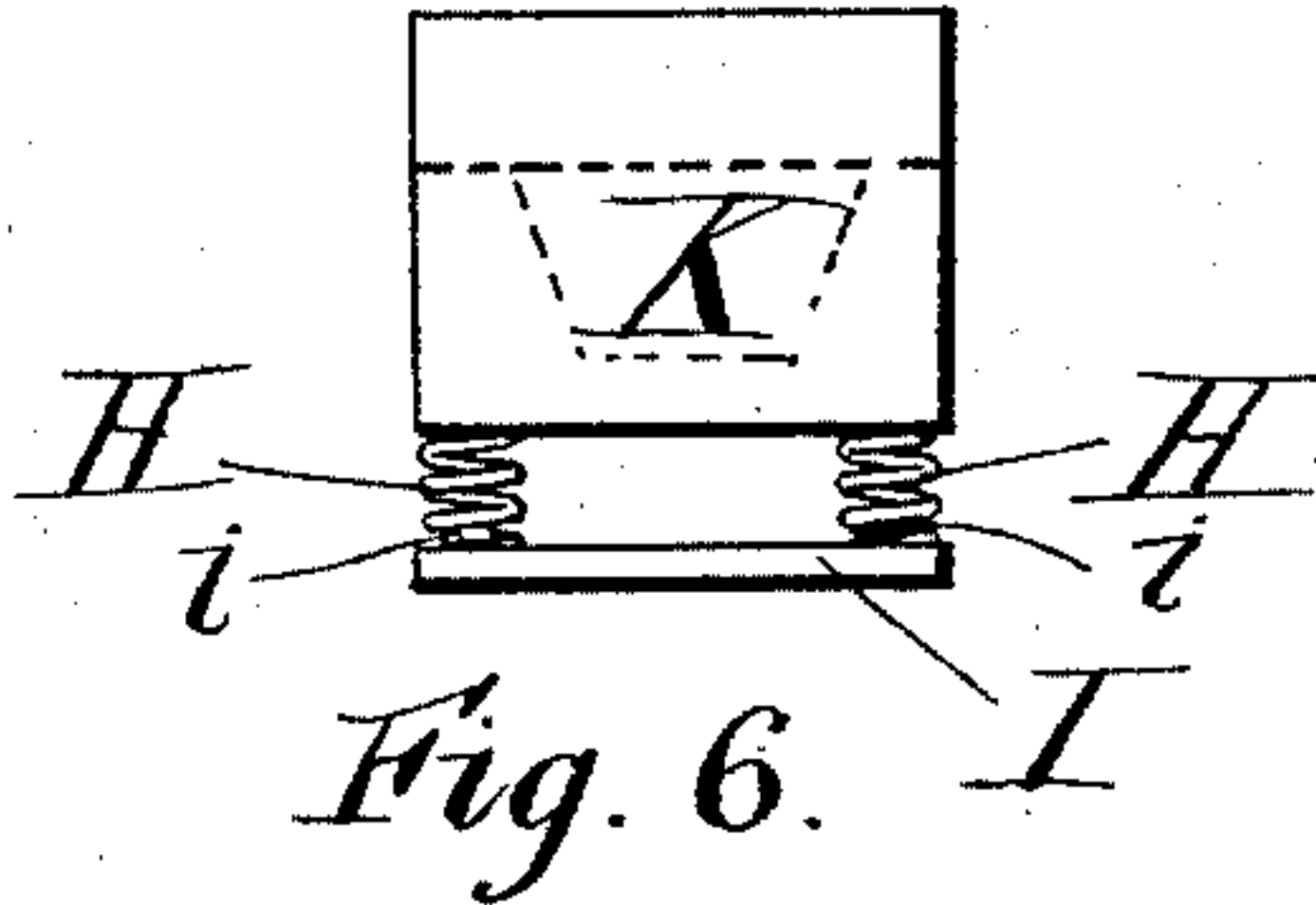
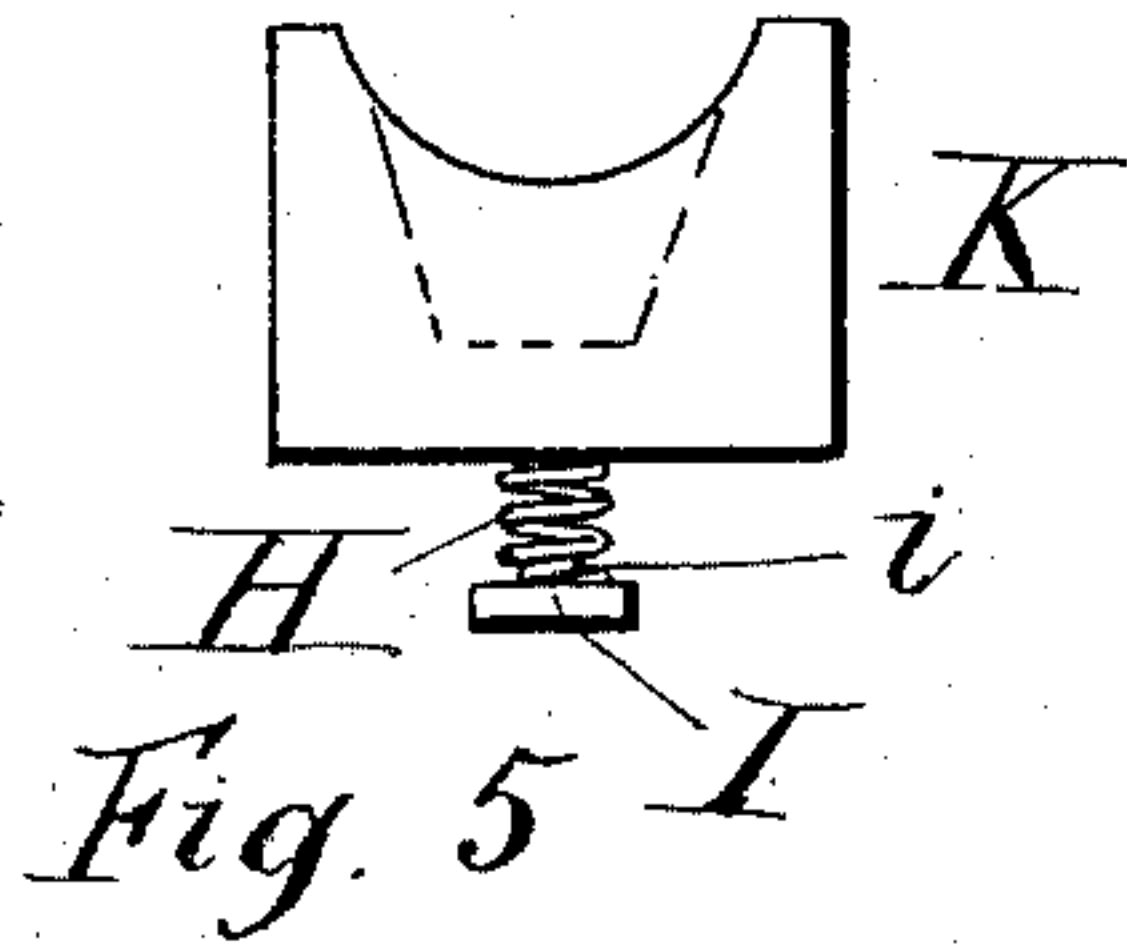


(No Model.)

F. P. SMITH.  
AXLE BOX.

No. 442,089.

Patented Dec. 2, 1890.



Witnesses:  
*W. P. Wood.*  
*W. P. Wood.*

Inventor  
*Frank P. Smith*  
by *Albert A. Wood*  
Attorney



# UNITED STATES PATENT OFFICE.

FRANK P. SMITH, OF ATLANTA, GEORGIA, ASSIGNOR OF ONE-HALF TO G. W. EAVES, OF SAME PLACE.

## AXLE-BOX.

SPECIFICATION forming part of Letters Patent No. 442,089, dated December 2, 1890.

Application filed May 2, 1890. Serial No. 350,382. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK P. SMITH, a citizen of the United States, and a resident of Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Trucks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to locomotive-trucks and more especially to the proper oiling of the axles, which is accomplished in this present invention by means of certain improvements in the construction of the device for the suspension of the oil-cellar, which as ordinarily constructed is very objectionable, inasmuch as the wearing of the brasses by frictional contact with the axle-bearing soon causes the truck-frame and pedestals to be lower relative to the axles than at first, and the cellars being fast to the pedestals under the axles necessarily descend with them and leave a space between the axle and the top of the cellar, which allows sand and dirt to accumulate therein, and causes the axle in turning the waste in said cellar with it to turn some out of the recess through the said aperture, which necessitates the inspection of these cellars each trip and the renewal of the waste therein, and frequently a thorough cleansing thereof to remove the sand and dirt otherwise abrading the axle and causing it to heat. The details of these improvements are hereinafter fully specified and claimed, and are shown in the accompanying drawings, in which—

Figure 1 is a side elevation, looking from between the wheels, showing a portion of the truck-frame, a pedestal, the device in place thereon, and the axle, the latter being in section. Fig. 2 is a front view, looking from the right in Fig. 1. Fig. 3 is a detail of the journal-block, the brass, and the cellar; and Fig. 4 is an end view thereof, showing the present improvement in place. Fig. 5 is an end elevation; and Fig. 6, a side view of the cellar, showing the present device attached.

In the figures like reference-marks indicate corresponding parts in the several views.

A is the frame; B, the pedestal.

C is the axle, and D the wheel.

E is the block, and F the brass seated therein removably. These parts just named may be of any of the well-known and desirable constructions. Across the bottom of the pedestals and extending to and across the other pedestal on that side, if desired, is a tie-bar G, having, if necessary, upwardly-projecting flanges, and being bolted to the lower ends of the bifurcated pedestals B.

The oil-cellar K is so constructed as to have play vertically in the pedestal instead of being set in transverse slides, as usual heretofore, the cellar being thus made capable of being caused to follow the axle and being at all times in contact with the same, being pressed against said axle by the springs H, which are seated on the cellar at their upper ends and on the bar I at their lower ends, suitable depressions or lugs being provided to prevent lateral motion of either end thereof.

Passing through a screw-threaded hole in the tie-bar G is a set-screw J, which impinges against the under side of the bar I, and by means of which the said bar may have vertical adjustment to keep an equable tension on the springs H, and hence keep the cellar at all times firmly pressed into place, thus preventing the waste from being drawn from the cellars and sand and dust from passing in, being embedded into the brasses and cutting the journal-bearings of the axles and causing them to heat, and other deleterious results consequent on having the lower side of the axle unprotected. The spring-pressed cellar will yield to a movement of the axle which is constantly taking place in the axle while running, owing to the great weight superincumbent thereon, which is not the case with cellars as ordinarily constructed. This springing and other movement of the axle also assists the natural wear from friction to render inoperative the cellar when held in place as heretofore, for the reason that the immense strain will press the cellar downwardly, from whence, owing to the non-resilient qualities of its hanging, it cannot return.

Having thus described my invention, what I

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

5 In a device of the described class, the combination of the pedestal B, having a bifurcated lower end, the block E, seated within said pedestal, the axle C, the brass F, interposed between the axle and the upper part of the block, the tie-bar G, bolted across the bifurcated end of the pedestal, the oil-cellar K,  
10 seated within the block E, the adjusting-

screw J, the bar I, and the spring H, seated between said bar and the oil-cellar, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

FRANK P. SMITH.

Witnesses:

A. P. WOOD,  
S. M. WOOD.