No. 712,977. Patented Nov. 4, 1902.

C. F. STREET.

TWIN SPRING DRAFT RIGGING FOR RAILWAY CARS.

(Application filed Aug. 28, 1902.)

(No Model.) 3 Sheets—Sheet 1.

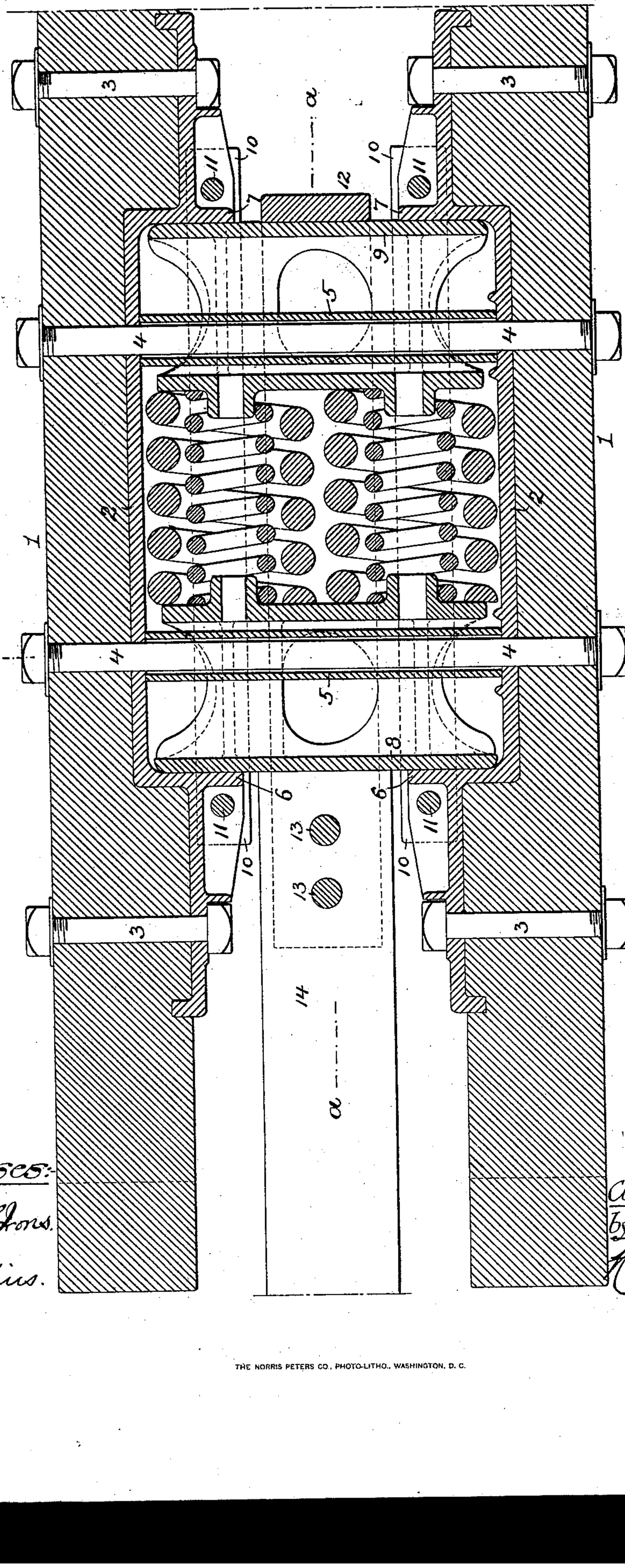

Fig. 1.

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Fig 2.

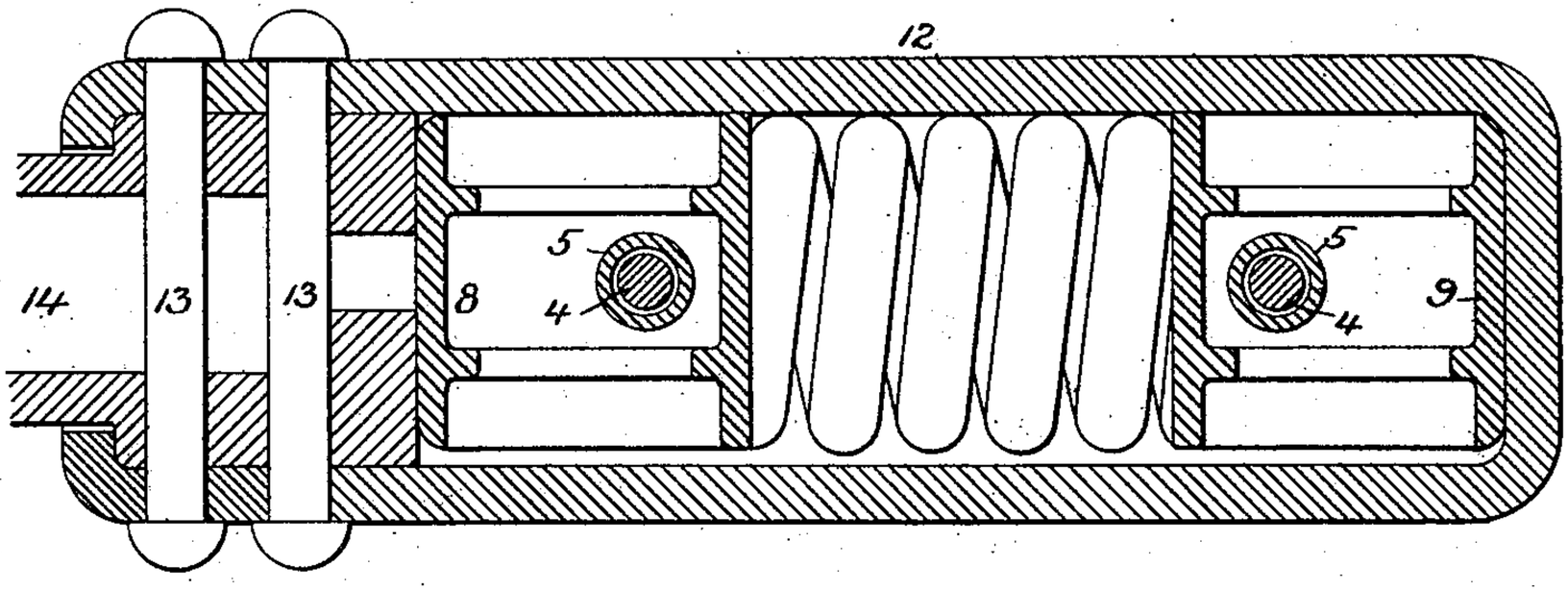

Fig 3.

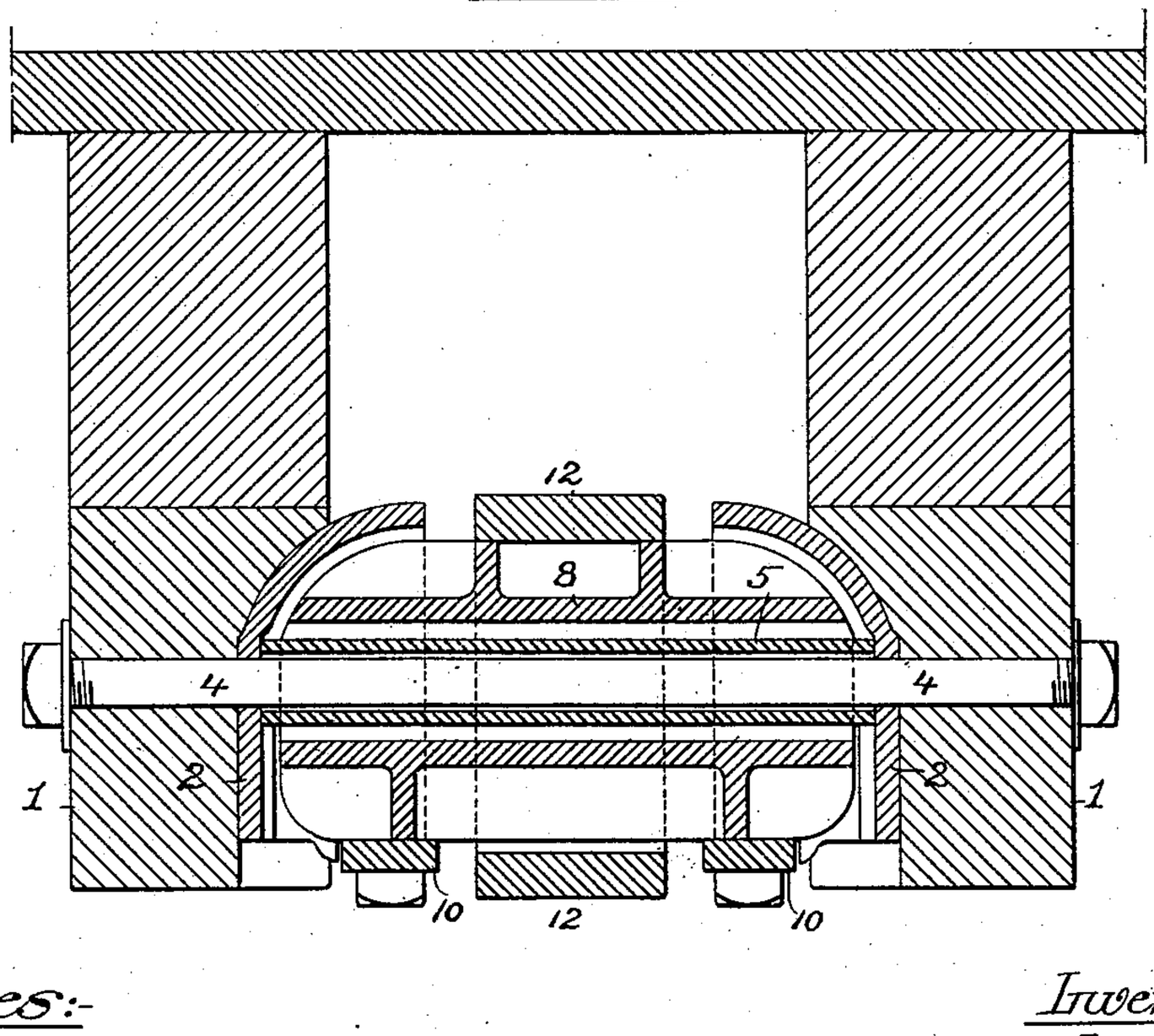

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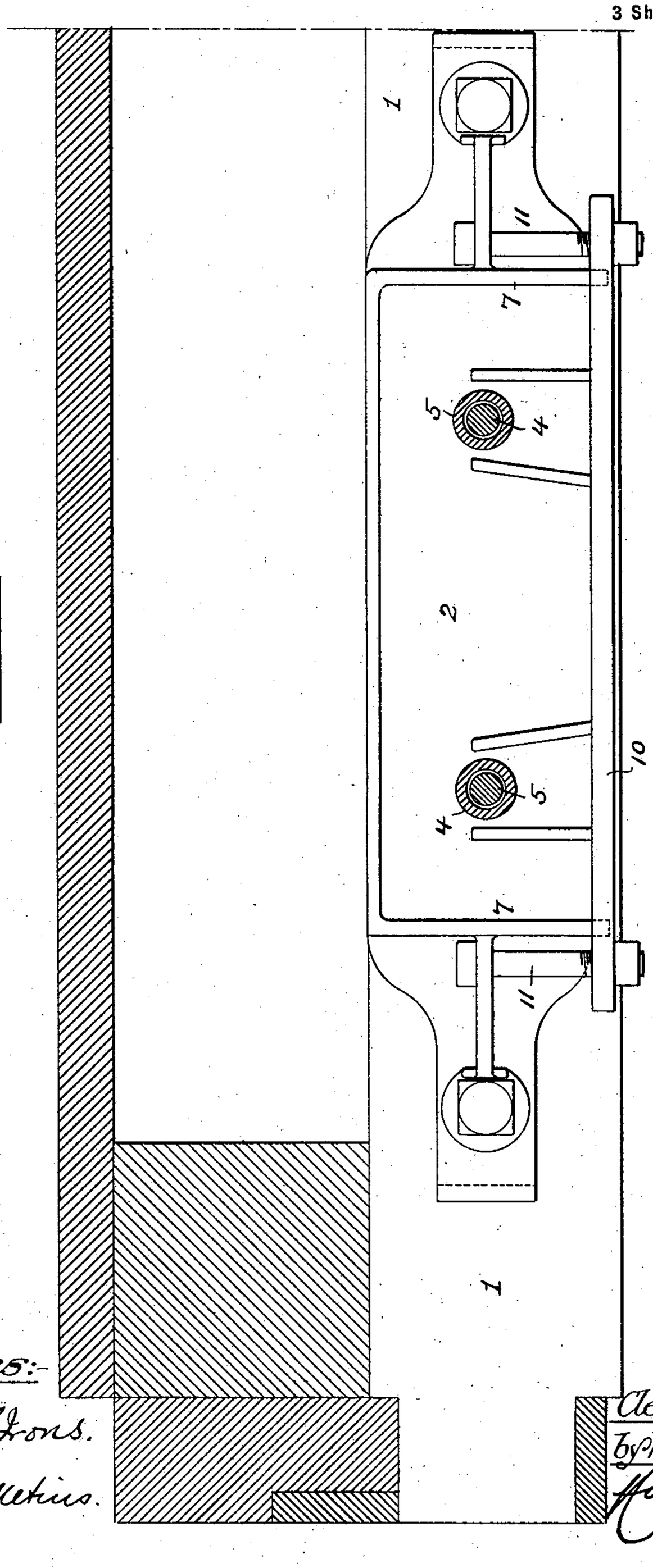
Fig 4



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UNITED STATES PATENT OFFICE.

CLEMENT F. STREET, OF CLEVELAND, OHIO.

TWIN-SPRING DRAFT-RIGGING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 712,977, dated November 4, 1902.

Application filed August 28, 1902. Serial No. 121,356. (No model.)

To all whom it may concern:

Be it known that I, CLEMENT F. STREET, a citizen of the United States, and a resident of Cleveland, Ohio, have invented certain Improvements in Twin-Spring Draft-Rigging for Railway-Cars, of which the following is a specification.

The object of my invention is to construct twin-spring draft-rigging for railway-cars which will be lighter and stronger than such devices as hitherto employed and with which I am familiar. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional plan view of twin-spring draft-rigging for railway-cars constructed in accordance with my invention. Fig. 2 is a longitudinal section on the line *a a*, Fig. 1. Fig. 3 is a transverse section on the line *b b*, Fig. 1; and Fig. 4 is a longitudinal section with the coupling-head, yoke, springs, and followers removed.

The opposite center sills of the car are represented at 1 1 in Fig. 1 of the drawings, and to these sills are secured opposite sill-plates or housings 2 by means of suitable transverse bolts 3 and 4, the intermediate bolts 4 passing across from one sill to the other and being surrounded by tubular sleeves or separators 5, interposed between the sill-plates, so as to maintain the latter at the proper distance apart. Each sill-plate has an inwardly-projecting forward flange 6 and a similar inwardly-projecting rear flange 7, and the central portion of each sill-plate is offset laterally in line with these flanges, so as to provide broad bearings for the front and rear followers 8 and 9, which are hollow for the reception of the bolts 4 and separators 5, these hollow followers being elongated, so as to permit of the necessary play of the same without risk of bringing them into contact with said separators. Between the followers are inserted the twin-spring structures, each of the latter consisting in the present instance of a duplex spring comprising an outer heavy coil and an inner lighter coil; but the character of these spring structures may be varied without departing from the essential features of my invention. The hollow followers are supported upon wrought-iron or steel bars 10, secured to each of the sill-plates or housings by means of vertical bolts 11, and the followers are embraced by a yoke 12, which is connected, as usual, by bolts 13 to the rear end of the coupling-head 14. Said coupling-head bears upon the forward follower 8, and the yoke is in contact with the rear follower 9. Hence buffing strains cause rearward movement of the forward follower and compression of the springs against the rear follower, while draft strains cause forward movement of the rear follower and compression of the springs against the forward follower. By relieving the bolts 4 and separators 5 from any duty of supporting the followers or resisting strains thereupon this portion of the structure is decreased in weight, the use of the wrought-iron or steel bars 10 as a means of supporting the weight of the rigging insuring the necessary strength of such support with the minimum of weight.

In the present instance I have shown my invention as applied to a car having wooden sills; but the invention can also be used in connection with cars having metallic sills, if desired.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The combination in twin-spring draft-rigging for railway-cars, of sill-plates, transverse bolts, separators interposed between the sill-plates, front and rear hollow followers embracing the separators but free from contact therewith and having bearing upon front and rear flanges of the sill-plates, and springs interposed between said followers, substantially as specified.

2. The combination in twin-spring draft-rigging for railway-cars, of sill-plates, transverse bolts, separators surrounding the same and interposed between the sill-plates, hollow front and rear followers surrounding the separators but free from contact therewith and having bearing against front and rear flanges of the sill-plates, bottom bars separate from but secured to the sill-plates, and supporting said followers, a draft-head and yoke carried by the followers, and springs interposed between the followers, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CLEMENT F. STREET.

Witnesses:
C. W. COMSTOCK,
G. W. BURRELL.