

**No. 630,304.**

**Patented Aug. 1, 1899.**

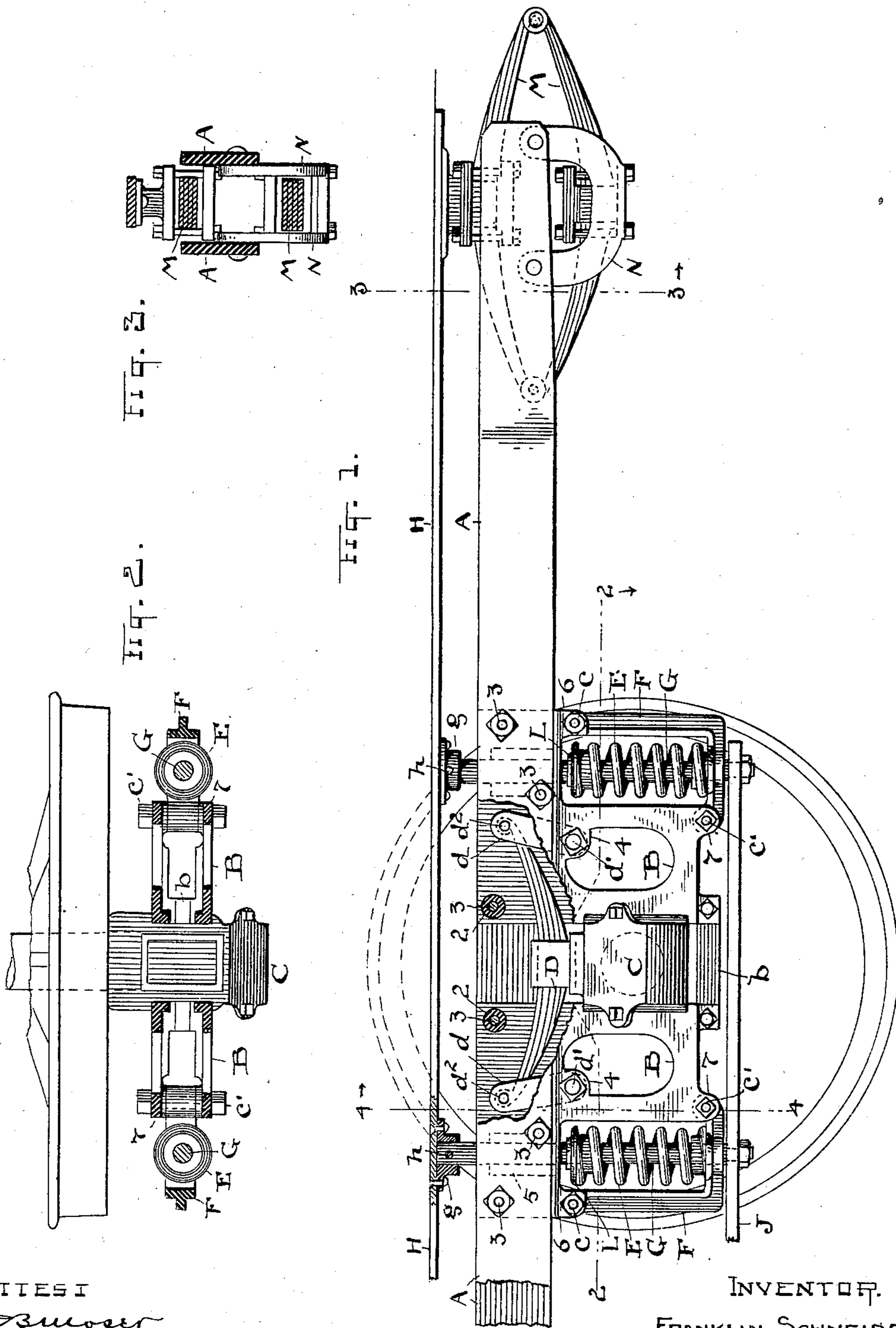
**F. SCHNEIDER.**

**CAR TRUCK.**

(Application filed Mar. 20, 1899.)

(No Model.)

**2 Sheets—Sheet 1.**



A T T E S T

703 Moser  
F. C. McMillin

INVENTOR.

FRANKLIN SCHNEIDER

By *H. T. Fisher* Atty

No. 630,304.

Patented Aug. 1, 1899.

F. SCHNEIDER.  
CAR TRUCK.

(Application filed Mar. 20, 1899.)

(No Model.)

2 Sheets—Sheet 2.

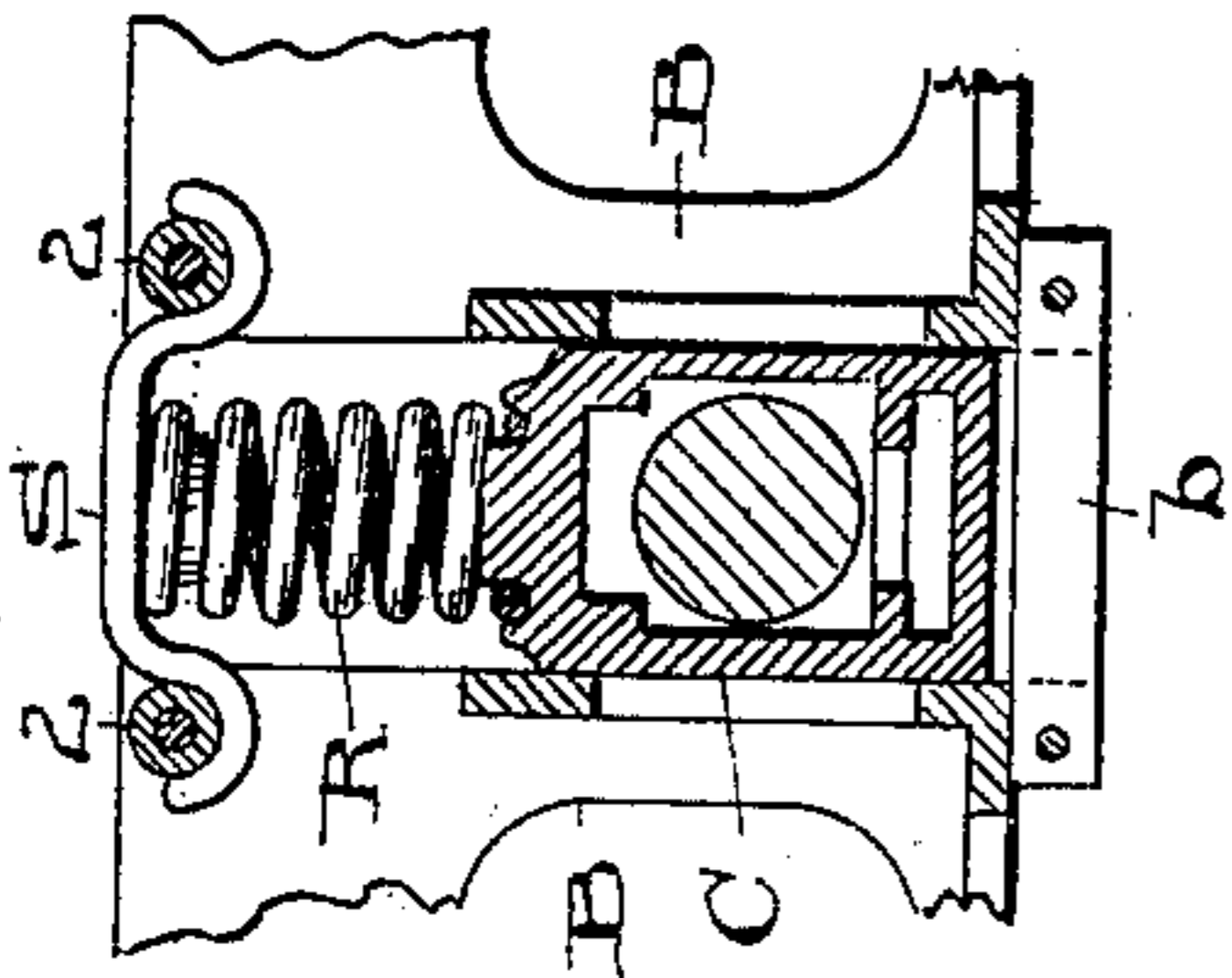


Fig. 7.

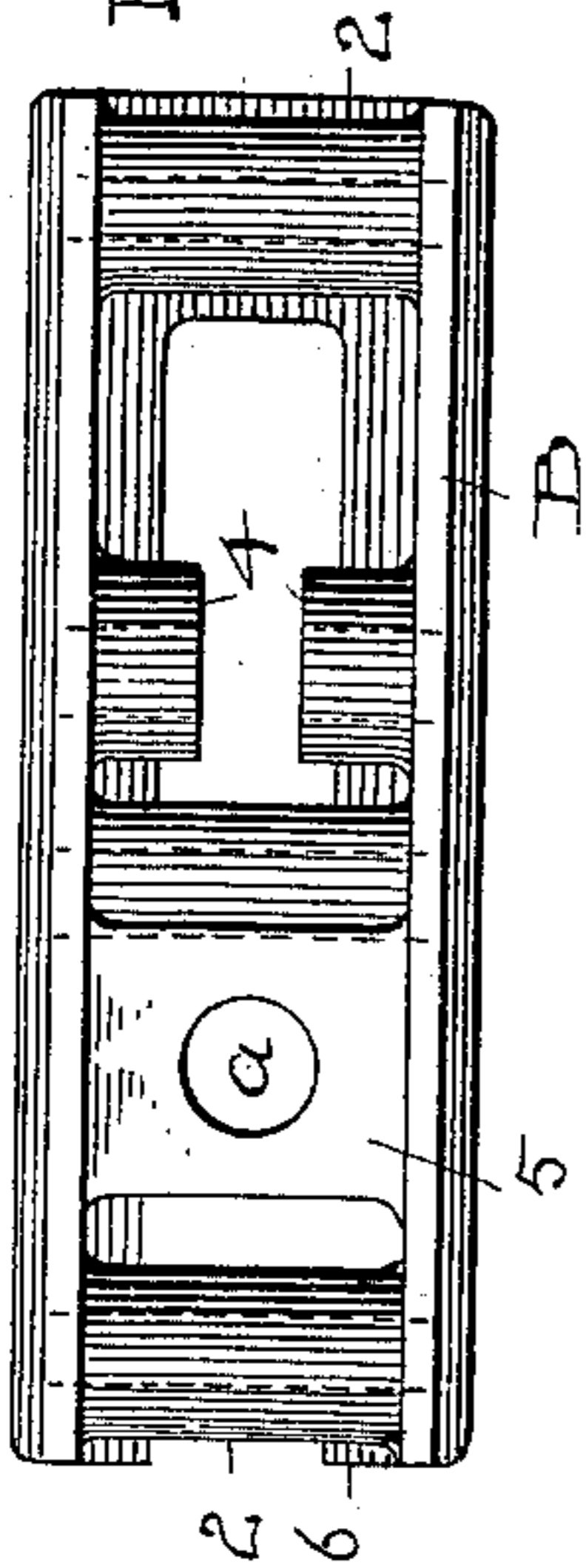


Fig. 6.

Fig. 5.

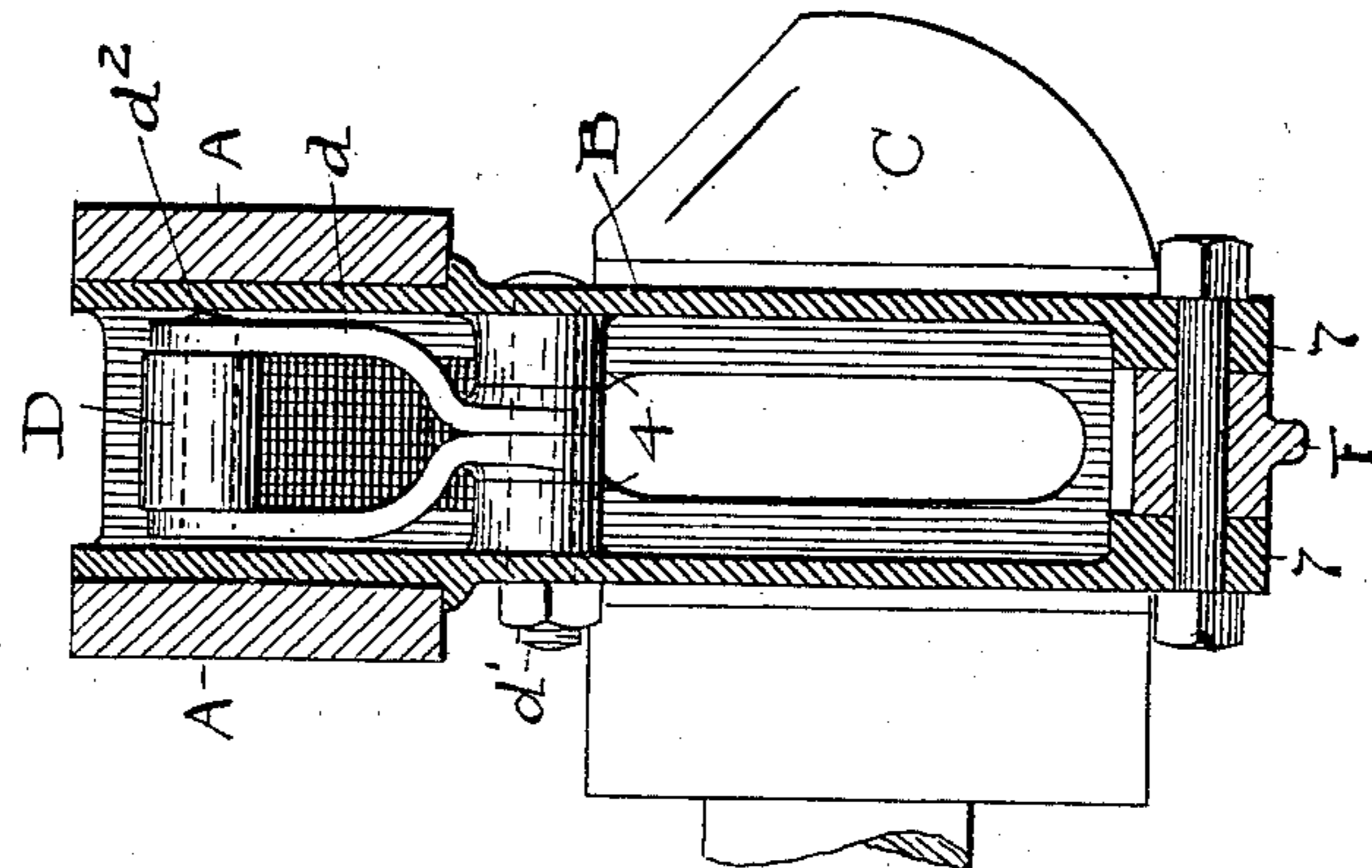


Fig. 4.

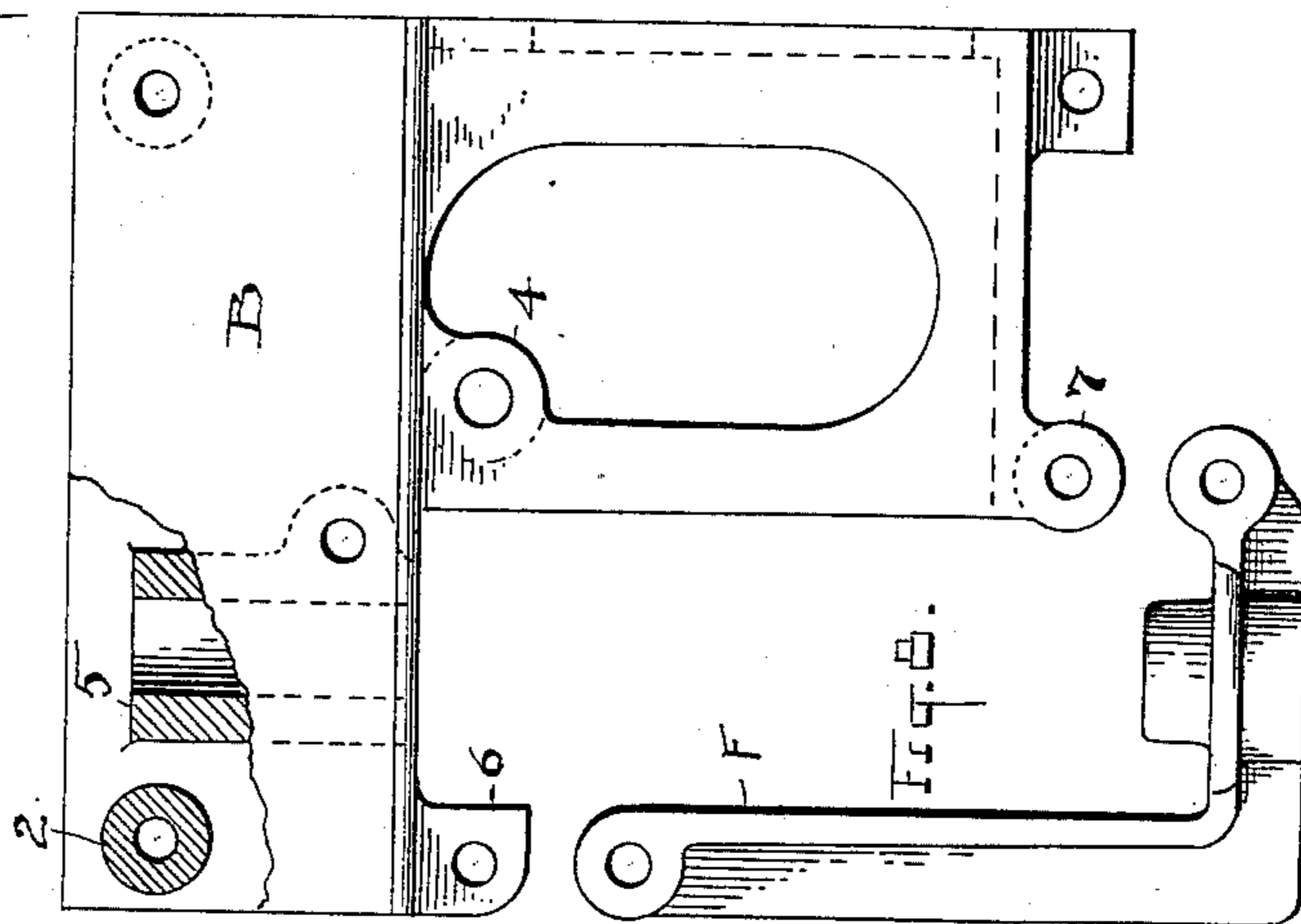


Fig. 3.

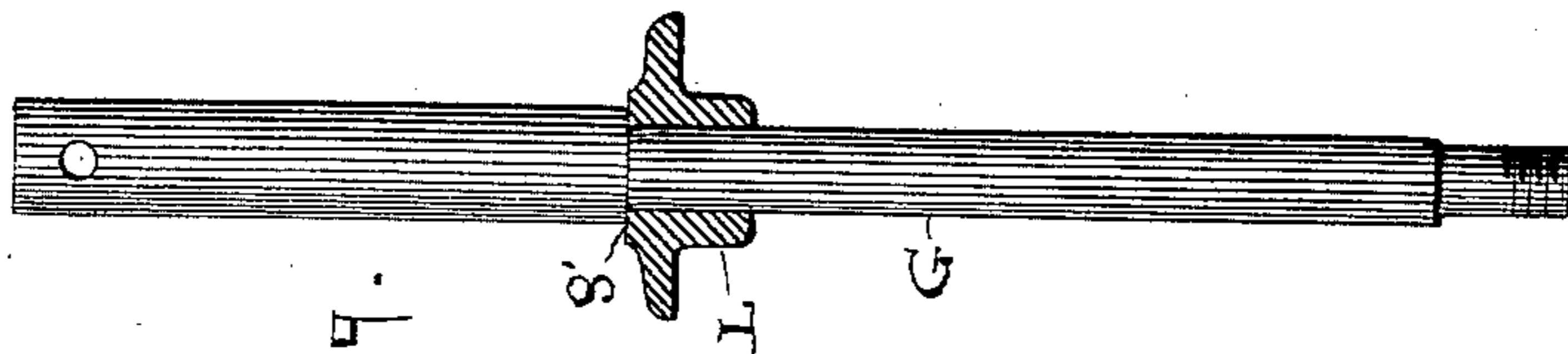


Fig. 2.

ATTEST  
F. C. McMillin

INVENTOR.  
FRANKLIN SCHNEIDER  
By H. Y. Fisher  
ATTY

# UNITED STATES PATENT OFFICE.

FRANKLIN SCHNEIDER, OF CLEVELAND, OHIO, ASSIGNOR TO THE VAN DORN & DUTTON COMPANY, OF SAME PLACE.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 630,304, dated August 1, 1899.

Application filed March 20, 1899. Serial No. 709,726. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN SCHNEIDER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Trucks; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it ap-  
10 pertains to make and use the same.

My invention relates to improvements in car-trucks; and the invention consists in the construction, combination, and arrangement of the parts, substantially as shown and de-  
15 scribed, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of a portion of a car-truck containing a full embodiment of my invention in connection with one of the car-axles and the springs associated therewith, as hereinafter fully described. Fig. 2 is a plan view looking down on section-line 2 2, Fig. 1, but omitting the elliptic spring. Fig. 3 is a sectional elevation on line 3 3, Fig. 1, at the right of the figure. Fig. 4 is a cross-sectional elevation looking to the right on line 4 4, Fig. 1. Fig. 5 is a plain elevation of one section or side of the pedestal, and as both sides are  
20 alike this view will suffice to illustrate this part of the invention. Fig. 6 is a plan view of Fig. 5, showing some of the structural features within the sides of each pedestal-section. Fig. 7 is a modification of the spring over the journal-box. Fig. 8 is a detail in side elevation of one of the detachable stirrups for supporting the coiled springs on the pedestal. Fig. 9 is a detail of the spring posts or rods.

40 The parts constituting the invention are assembled and in working relation in Fig. 1, where, however, only half of a complete truck is shown, this being sufficient to disclose and understand the invention.

45 A represents the side bars of the truck, there being two on each side of the car, as usual, and constituting practically a single part of the truck when united, between which the pedestals and other parts are arranged, and the said bars are locked together, as will hereinafter appear.

B are the pedestals or sections of pedestals if the two together be construed as one, there being two associated in all cases and exactly alike, so that the illustration and de-  
55 scription of one is sufficient for all. These pedestals or sections of pedestals are constructed to occupy the full space between side bars A and completely fill said space, so that no blocks or other means of any kind are  
60 necessary to space said bars or to afford means through which the side bars may be bolted. The form or outline of the pedestals is clearly seen in Figs. 5 and 6, wherein a plain elevation discloses a structure substantially L-  
65 shaped, inverted, with the long straight outer edge of the stem of the L exposed to the journal-box C, while the other or right-angled portion and presumably the shorter side of the L lies wholly between the bars A and a recess oc-  
70 curs in the otherwise unoccupied portion of the pedestal, as will hereinafter appear. The special features of the pedestal thus outlined and arranged are, first, the several integral spacing-sleeves 2, through which pass heavy  
75 bolts 3 for rigidly and firmly locking the bars A and the pedestals together. Other features of the pedestal are the internal bosses or eyes 4 near its middle, but below the side bars A, the integral solid part 5, having a cen-  
80 tral vertical bearing or passage *a* for the upper and heavier portion of the spring bolt or post, and the two sets of lugs 6 and 7 on the outer corners of its recess. The depending portion of the pedestal sustains the same cross-section  
85 as the upper bolted-in part and is constructed of flanged open-work, so as to have the requisite strength and yet be relatively light in weight. Now assuming that two companion pedestals or sections of a pedestal thus fashioned  
90 are assembled and bolted onto the frame, as in Fig. 1, the journal-box C is located between them and sustained both laterally and axially, as usual—that is, the pedestal has no new relation to or with the journal-box as  
95 such. To the top of the journal-box is seated the elliptic spring D, and the ends of this spring are supported each by a pair of links *d*, pivoted at their lower ends on a bolt *d'*, which passes through the bosses or eyes 4 of  
100 the pedestal, and said links are connected at their upper ends by bolts or rods *d*<sup>2</sup>, engaged

by the ends of spring D. Both sets of links incline apart sufficiently at their top to sustain this inclined relation when in action and in each set are preferably bent toward each other at their bottom, as seen in Fig. 4. This construction and arrangement of parts has this advantage, among others, that by simply removing the bolts  $d'$ , which are conveniently exposed at their ends, the spring D is wholly separated from the pedestal B and frame A and can be removed.

E are the spiral springs, arranged in pairs in connection with the pedestals B and seated each on an L-shaped bracket F in the recess in the outer edge or portion of the pedestal B. This bracket is formed with openings through its ends for the passage of securing-bolts  $c c'$ , the latter being shown also in Fig. 2, where the lower end of the bracket is seen as coming between the sides of the pedestal lugs or ears 7, as it does between lugs 6 above, or it might have overlapping portions at these connections, if thought best. The spring E is seated directly upon this bracket, and the rod or post G connects the sill-plate of the car-body with the truss-bar J below through the passage in the solid part 5 of the pedestal, the spring E, and the lower part of bracket F, which carries said spring. At its bottom a suitable nut is threaded onto the rod G, and at its top a cap  $g$  is affixed to the sill-plate H, having a socket adapted to receive the end of the said rod, and a transverse pin  $h$  fastens the rod therein. This construction and arrangement of these parts affords the utmost convenience when occasion arises to separate the parts to mend a break from accident or otherwise. Suppose, for example, that in an accident the rod G should become bent or the spring E injured so as to demand repair. By removing the two convenient bolts  $c$  and  $c'$  and the pin  $h$  both spring and rod would be available, and, as already pointed out, the removal of bolts  $d'$  liberates spring D, and all this can be done in a few moments with practically no other tool than a suitable wrench. Yet when the parts are connected up they are every way most serviceable and durable. It should be noted also that rod or post G has two diameters, the upper one being largest and affording a shoulder  $g'$  for the spring-bearing cap L and through which the weight from above rests on said spring. Ordinarily there is no danger of noise at this point; but if there be a washer or block of some suitable material to deaden the noise may be placed between cap  $g'$  and the metallic surface above. A bar or strap  $b$  connects the pedestals beneath the journal-box C.

Another part of the invention is seen at the right in Fig. 1, where it will be observed that the single elliptic spring M is supported between the bars A. It is desirable for several important reasons to make the bars A straight or without a dip or downward bend at their ends, as has been common, and I am enabled to preserve this construction and advantage

and support the spring itself in a novel and advantageous manner by employing a drop-bracket N, which hangs suspended from the bars A, to which it is riveted or bolted, and supports the spring M from its center. This carries the spring between the bars A and, as shown here, with its top practically flush with the top of said bars, so that the spring is in the best place possible for sightliness and protection and has its bearing brought down to an advantageously low position.

In Fig. 7 I show a modification of the spring mechanism over the journal-box, there being here a spiral spring R instead of the semi-elliptic in the other views and a bridge-piece S between the two adjacent connecting-sleeves of the two pedestals, against which the spring bears at its top, while it rests on the journal-box below in the same manner and to the same end as the other form of spring.

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

1. In car-trucks, the pedestal substantially as described having a recess in its outer edge, a right-angled bracket for said recess and secured at its ends to the pedestal, a spring resting on said bracket in said recess and a post extending through the bracket, spring, and pedestal, substantially as described.

2. The side bars and the pedestals therein, and substantially L-shaped spring-supporting brackets fixed removably to the pedestals at their ends, a spring on each pedestal and a post for each spring having its bearing in the pedestal above, in combination with the journal-boxes, a spring supported on each box and a set of links supporting the ends of the spring on the pedestal, substantially as described.

3. In car-trucks, a pedestal substantially as shown and described, the same being substantially L-shaped and having a straight upper portion to be bolted between the side bars and formed with spacing-sleeves 2 for the bolts, a solid portion 5 for the bearing of the spring-post, and projections 6 and 7 for securing the spring-carrying bracket, substantially as described.

4. In car-trucks, a pedestal constructed to occupy the full space between the side bars of the truck-frame and to be bolted therein and having a recess in its outer edge, and a substantially L-shaped spring-carrying bracket bordering said recess at one side and bottom, and detachably fixed to the pedestal, substantially as described.

5. The side bars and the pedestals bolted between the same, and having each a central vertical bearing between said bars for the spring-post and a recess in its outer side beneath said bearing and bars, in combination with an angular bracket in said recess and fixed to said pedestal at its ends, a coiled spring resting on said bracket and a post through said spring and the said bearing in the bracket, substantially as described.

6. The truck having side bars, a pair of pedestals between the said bars and a journal-box between the pedestals, in combination with a spring connected with the pedestals at its ends and resting at its middle on the journal-box, a separate substantially L-shaped bracket supported on the outside of each pedestal, a coiled spring on each bracket and a post extending through each of said springs and brackets and through the upper portion of the pedestal, substantially as described.

7. The truck having a pair of side bars and a pair of pedestals removably bolted between said bars, in combination with the journal-box between said pedestals, a leaf-spring seated on said box and inclined links pivoted on said pedestals and engaging the ends of the spring to bring the weight of the truck

directly onto the pedestals, substantially as described.

8. The side bars of the truck, a substantially U-shaped bracket attached at its ends to the ends and lower edges of said bars, and a full elliptic spring seated between the sides of said bracket beneath the plane of said bars and arranged to operate between the bars, the space above said bracket between the ends of said bars being open and free for the spring-supporting bracket on the car-body to play between said bars, substantially as described.

Witness my hand to the foregoing specification this 11th day of March, 1899.

FRANKLIN SCHNEIDER.

Witnesses:

H. T. FISHER,  
R. B. MOSER.