

A. CHRISTIANSON.

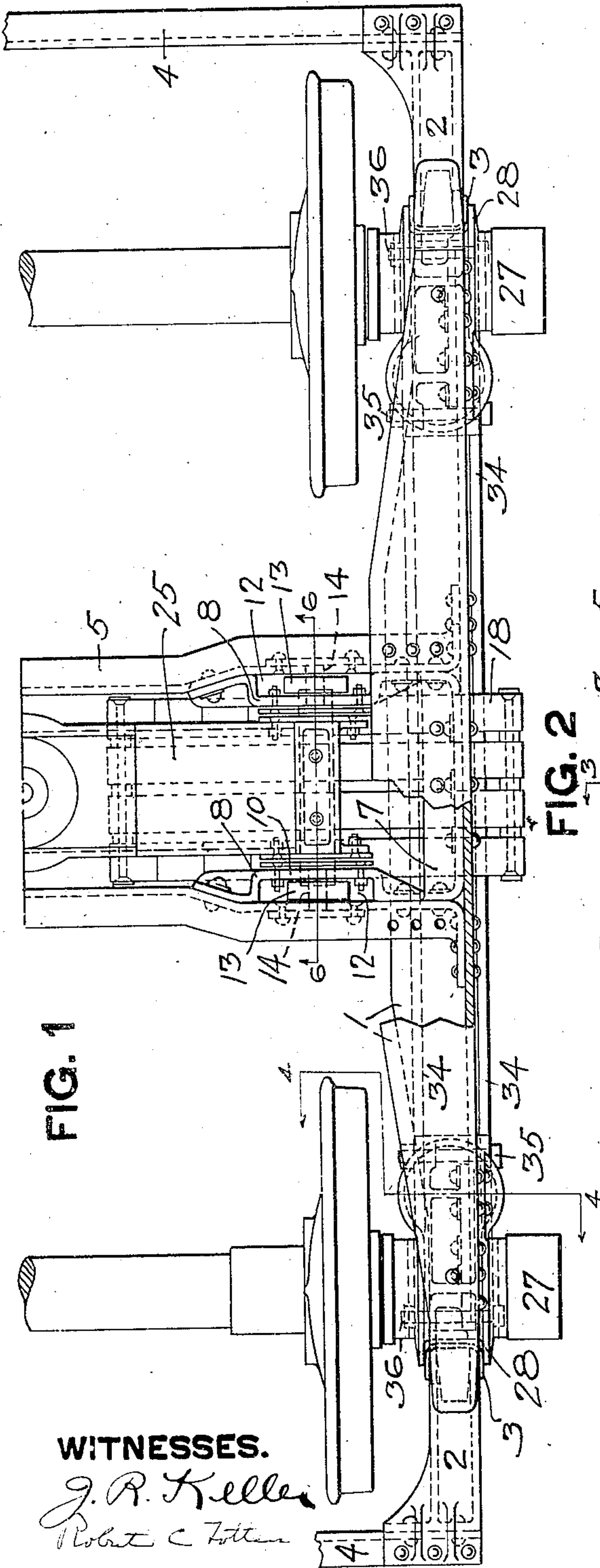
MOTOR TRUCK.

APPLICATION FILED FEB. 3, 1908.

Patented June 22, 1909.

2 SHEETS—SHEET 1.

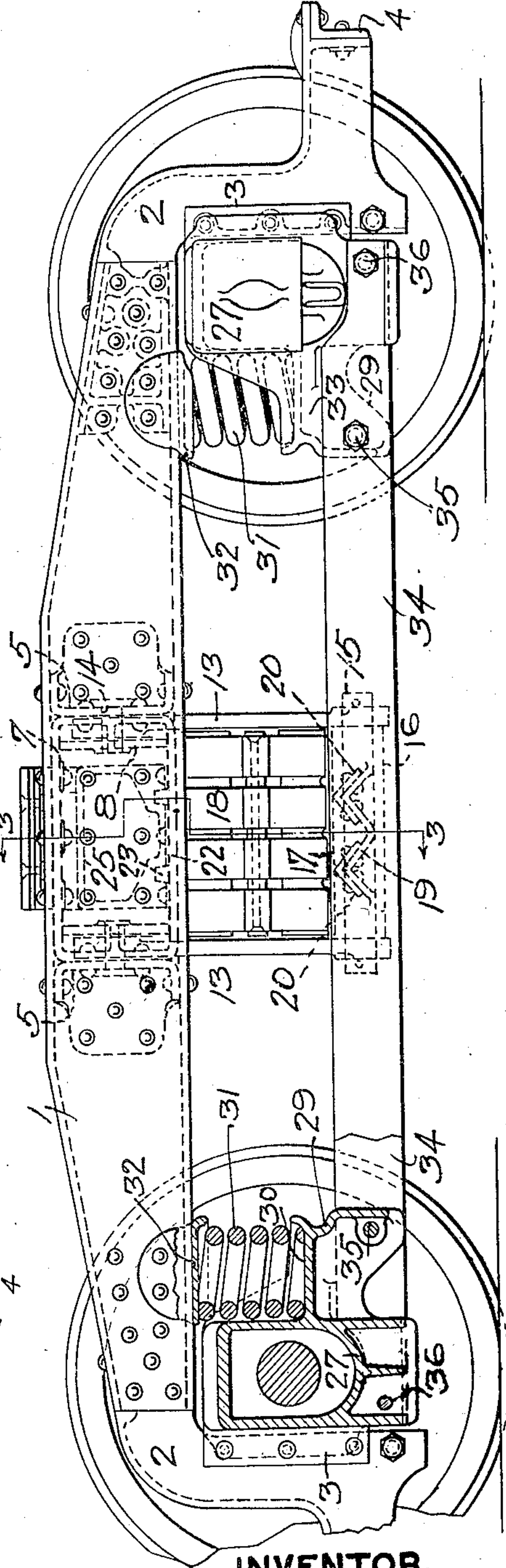
925,682.



WITNESSES.

J. R. Keller
Robert C. Totten

FIG. 2



INVENTOR.

Andrew Christianson
Ray Totten *attorney*

A. CHRISTIANSON.
MOTOR TRUCK.
APPLICATION FILED FEB. 3, 1908.

925,682.

Patented June 22, 1909.

2 SHEETS—SHEET 2.

FIG. 4

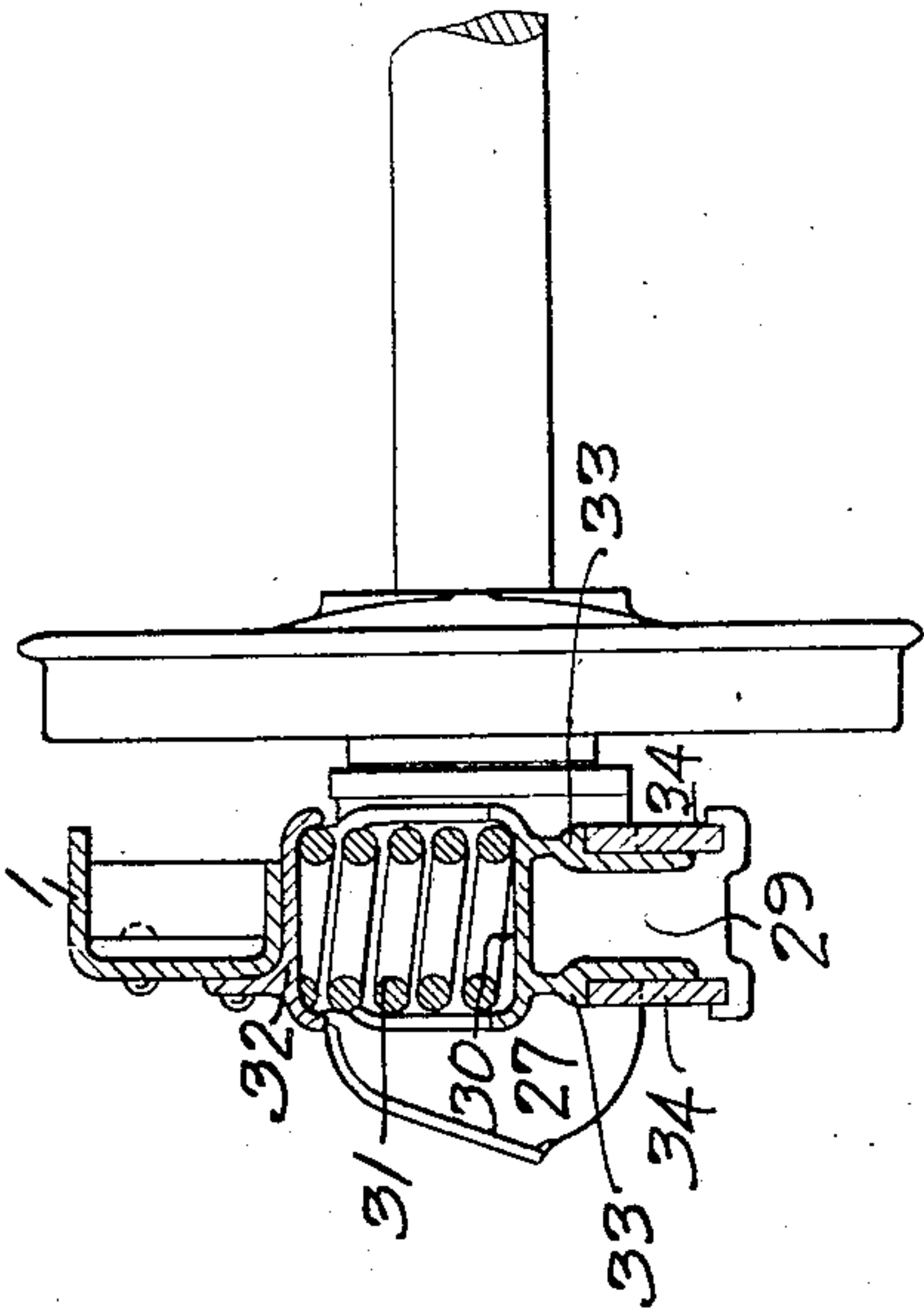


FIG. 7

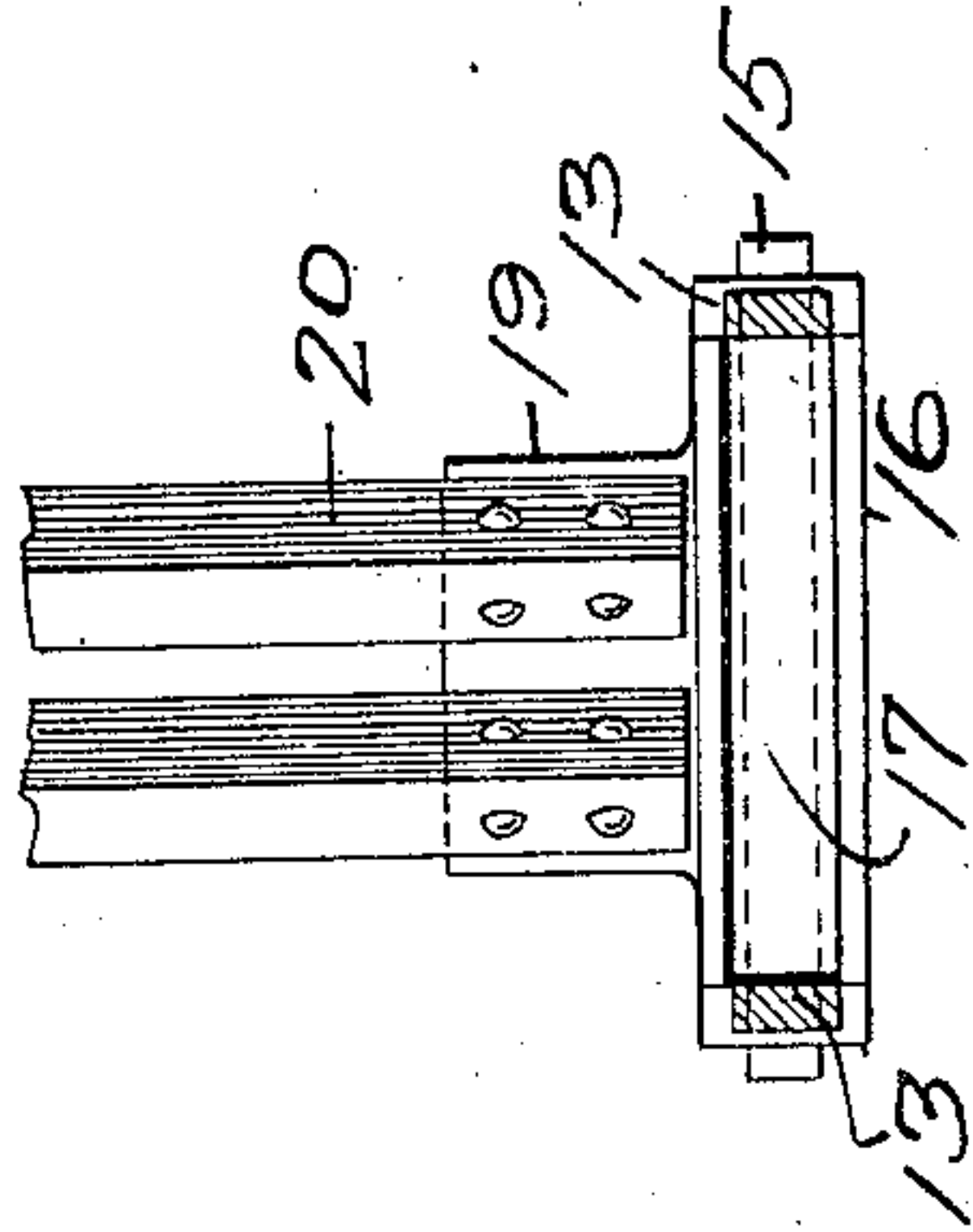


FIG. 6

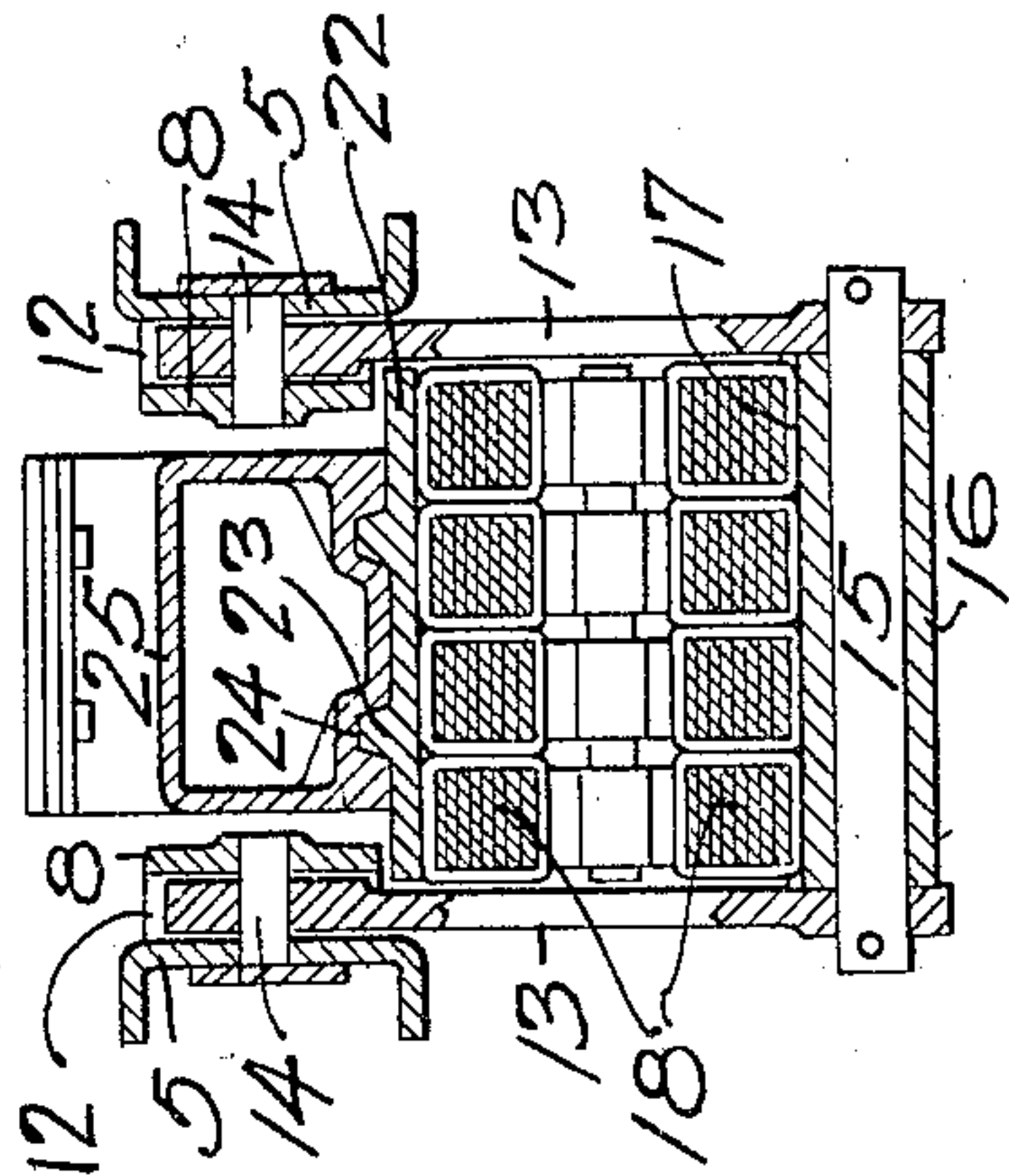


FIG. 5

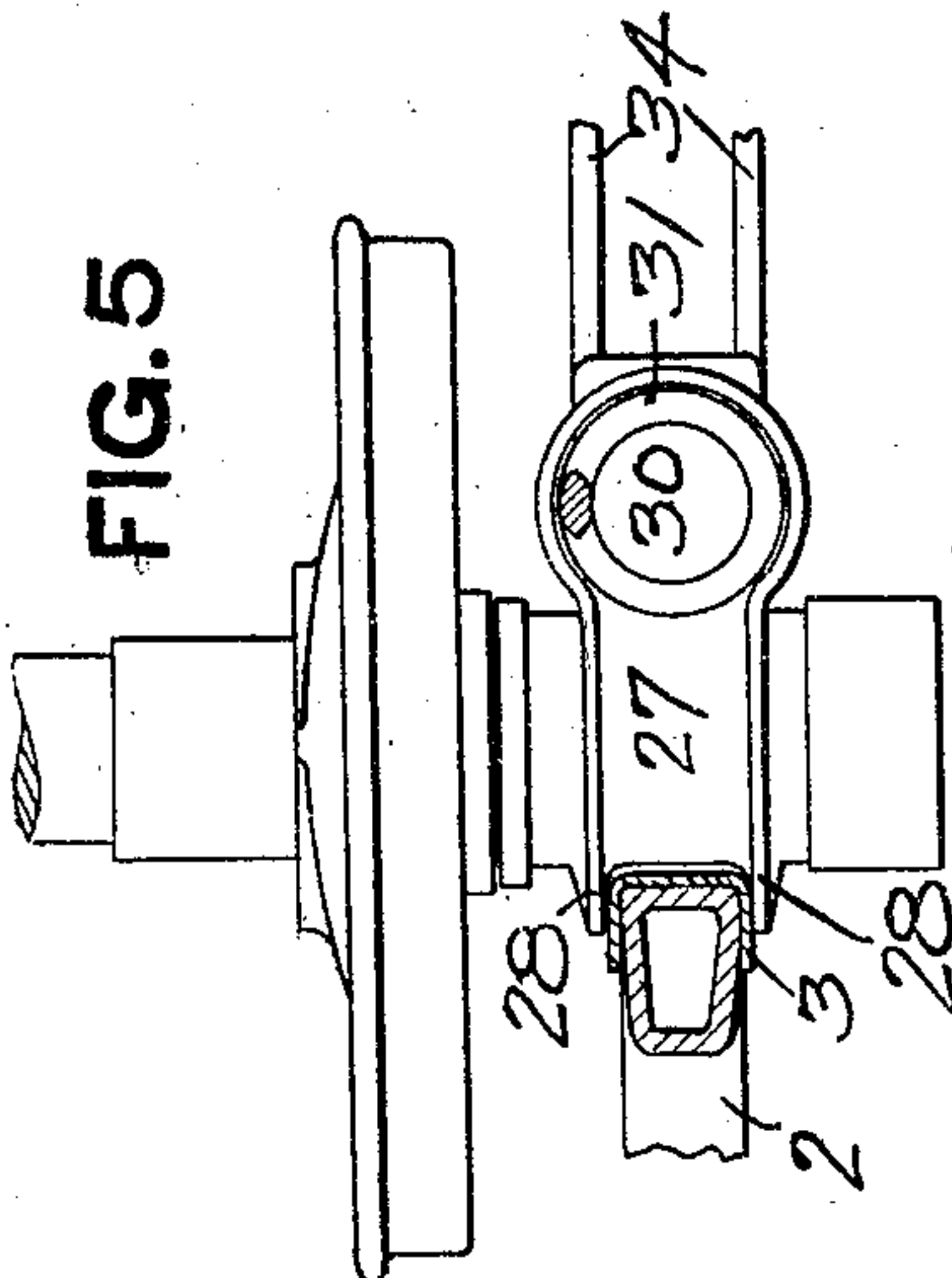
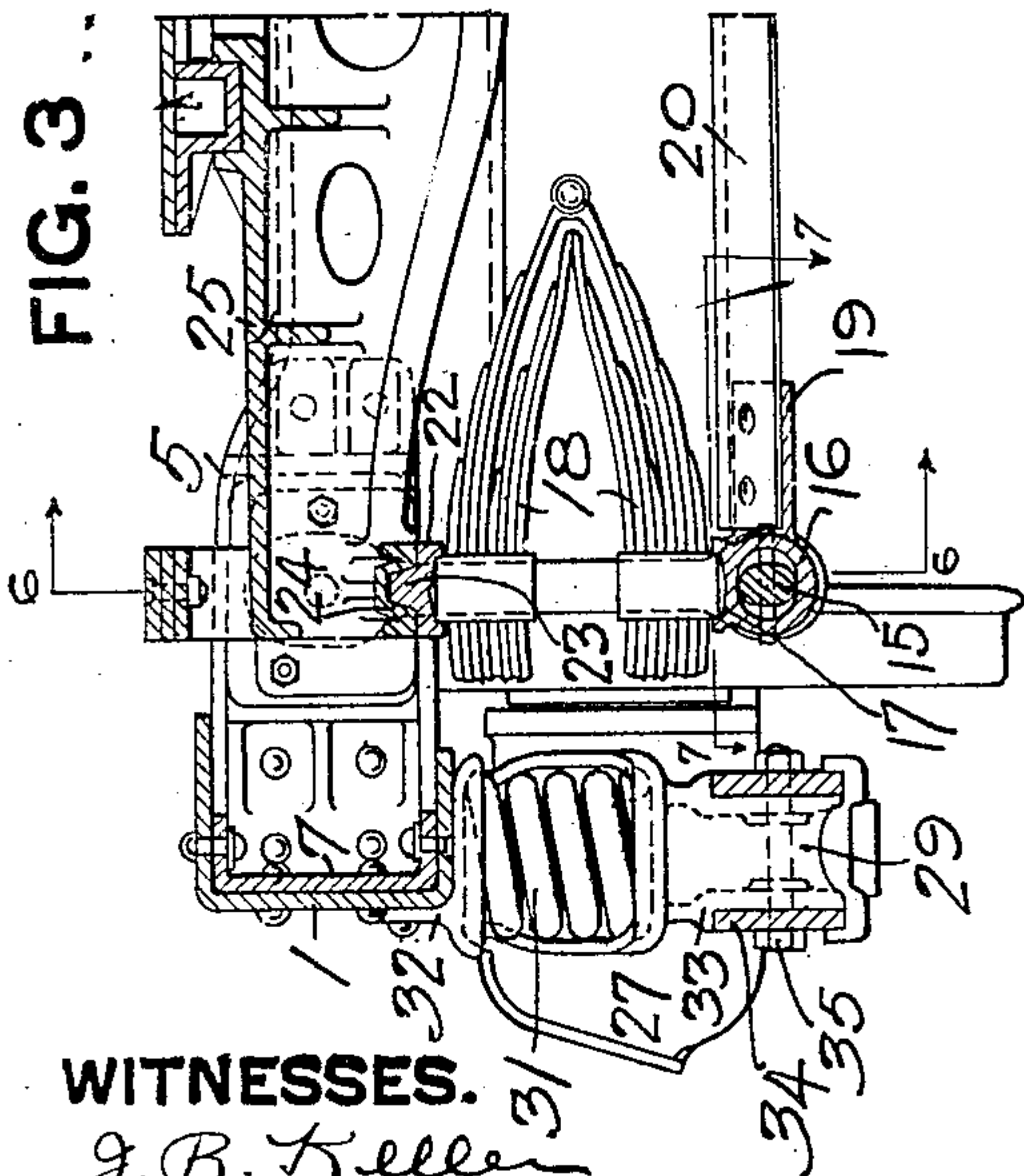


FIG. 3



WITNESSES.

J. R. Keller
Robert C. Zottner

INVENTOR.

Andrew Christianson
By King, Bollen & Winter
attorneys

UNITED STATES PATENT OFFICE.

ANDREW CHRISTIANSON, OF BUTLER, PENNSYLVANIA, ASSIGNOR TO STANDARD STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

MOTOR-TRUCK.

No. 928,682.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed February 8, 1908. Serial No. 414,024.

To all whom it may concern:

Be it known that I, ANDREW CHRISTIANSON, a resident of Butler, in the county of Butler and State of Pennsylvania, have invented a new and useful Improvement in Motor-Trucks; and I do hereby declare the following to be a full, clear, and exact description thereof.

This invention relates to motor trucks for railway and similar cars.

The object of the invention is to improve such trucks in details of construction and arrangement hereinafter described and claimed.

In the accompanying drawings Figure 1 is a plan view partly broken away of one half of a truck frame embodying my invention; Fig. 2 is a side elevation thereof, one of the journal boxes being in section; Fig. 3 is a vertical section on the line 3—3 Fig. 2; Fig. 4 is a similar section on the line 4—4 Fig. 2; Fig. 5 is a horizontal section on the line 5—5 Fig. 2; Fig. 6 is a vertical section transversely of the transoms and bolster on the line 6—6 Fig. 1; and Fig. 7 is a horizontal section on the line 7—7 Fig. 3.

My improved truck frame comprises the side members 1 preferably of pressed channel shape as shown, and having secured to their ends the castings 2 forming journal box jaws 3, and having their ends secured to cross bars 4, as is common in motor trucks. The side frames are also connected by the transom bars 5, which preferably are sections of channel bar as shown, having their ends bent at an angle to the body and secured to the web of the channel side member 1, while the flanges of the channel bars are riveted to the top and bottom flanges of said channel side member, as shown in Figs. 1 and 2. This connection of the transom is strengthened and the transoms themselves are braced by means of a suitable connection member, preferably a casting, and comprising a main body portion 7 lying in the channel side member between the transoms and riveted through the webs of the transoms and of the side member and also through the flanges of said side member, and having inwardly projecting arms 8, riveted to the transoms and bracing the latter. To provide space for the bolster hangers the transoms 5 at their end portions are bent or offset outwardly, as shown in Fig. 1, while the arms 8 of the connecting member are

offset inwardly as at 10, thereby providing spaces 12 in which the upper ends of the bolster hangers 13 lie, said hangers being suspended on the pivots 14 extending through the transoms and the arms 8 of the connecting member. The connecting member is a single integral piece which at its outer end completely fills the channel side member and the space between the transoms and is rigidly secured to these parts, while the integral arms extend inwardly and are secured to the transoms. The consequence is that this member forms a very strong connecting member and a strong brace tending to keep the frame square.

The bolster hangers are arranged in pairs, as shown, and their lower ends are connected by means of a rod or bolt 15. The latter is surrounded by a sleeved member 16 having its upper face 17 formed as a seat for the springs 18. Said sleeved member has an inwardly projecting part or parts 19 so shaped as to have secured thereto a cross connecting bar or bars, in effect a spring plank, and in the present instance composed of two angle bars 20 riveted to the projection 19, as shown, said projection being shaped to receive the angle bars in inverted position as shown in Fig. 2.

Resting on the springs 1 is a cap 22 which on its upper face is provided with a number of projections or bosses 23, fitting in corresponding sockets or depressions 24 in the bolster 25, as shown in Fig. 6. The bolster is of necessity made narrower than the nest of springs, and the cap 22 serves not only as a seat for the bolster but also forms a bolster bearing wider than the bolster itself and spanning the entire nest of springs.

A special improvement consists in form of journal boxes used and the connection of the equalizer bars therewith. The journal boxes 27 have the main body portion made to fit against the pedestal jaw 3, said body portion having the flanges or jaws 28 contacting with the jaws of the pedestal to prevent movement of the boxes laterally of the truck frame or parallel with the axles. These boxes are provided with inwardly projecting portions 29, having seats 30 for springs 31 interposed between said projections and caps 32 secured to the side frame members 1. The projections 29 of the journal boxes are provided with shoulders 33 resting upon the equalizer bars 34, while no contact is

otherwise made between the boxes and upper edges of the bars. The latter are secured to each box by means of a bolt 35 extending through the projection 29 and another bolt 36 extending through a depending web on the main body of the box. By reason of this construction the weight of the load carried by the side frame member 1 is transmitted through the springs 31 eccentrically on the journal boxes and tends to hold the shoulders 33 of the inwardly projecting members 29 tightly down against the equalizer bars. The consequence is that the two boxes on each side frame are tied together in a manner that insures their movement in absolutely parallel lines both upwardly and downwardly and also forwardly and backwardly. The consequence is that the sides of the boxes always strike with their full flat faces against the pedestal jaws, which greatly reduces the wear over prior construction in which the connection was such as to cause a tendency of the boxes to rotate or cant out of true vertical position.

What I claim is:

1. In a railway truck, the combination of a side frame having jaws for journal boxes, journal boxes in said jaws, and an equalizer bar secured to each of said boxes at two points on the opposite sides of the axis of the box longitudinally of the truck.

2. In a railway truck, the combination of a side frame having jaws for journal boxes, journal boxes in said jaws, said boxes being provided with inwardly projecting spring seats, springs interposed between the side frame and said seats, and an equalizer bar connected to said boxes.

3. In a railway truck, the combination of a side frame having jaws for journal boxes, journal boxes in said jaws, said boxes being provided with inwardly projecting spring

seats and having a shoulder on said projections, an equalizer bar secured to said boxes and bearing against said shoulder, and springs interposed between the spring seats and side frame.

4. In a railway truck, the combination of a side frame having jaws for journal boxes, journal boxes in said jaws having inwardly projecting portions, springs interposed between said inwardly projecting portions and the side frame, and an equalizer bar secured to said inwardly projecting portions and having its ends secured to each box on the opposite side of its axis.

5. A railway car truck frame comprising side members and transoms, bolster hangers suspended from said frame, a bolt connecting the lower ends of said hangers, a sleeved spring seat on said bolt, and cross bars secured to said sleeved spring seat.

6. A railway car truck frame comprising side members and transoms, bolster hangers suspended from said frame, a bolt connecting the lower ends of said hangers, a sleeved member on said bolt and having its top formed as a spring seat and also provided with an inwardly extending projection, and cross bars secured to said projection.

7. In a railway car truck, the combination of the frame, bolster hangers suspended therefrom, springs supported by said hangers, a spring cap on said springs, and a bolster resting on said cap, said cap and bolster having an interengaging projection and socket.

In testimony whereof, I the said ANDREW CHRISTIANSON have hereunto set my hand.

ANDREW CHRISTIANSON.

Witnesses:

ROBERT C. TOTTEN,
J. R. KELLER.