

(No Model.)

2 Sheets—Sheet 1.

T. M. GALLAGHER.  
TRUCK FRAME.

No. 604,608.

Patented May 24, 1898.

Fig. I.

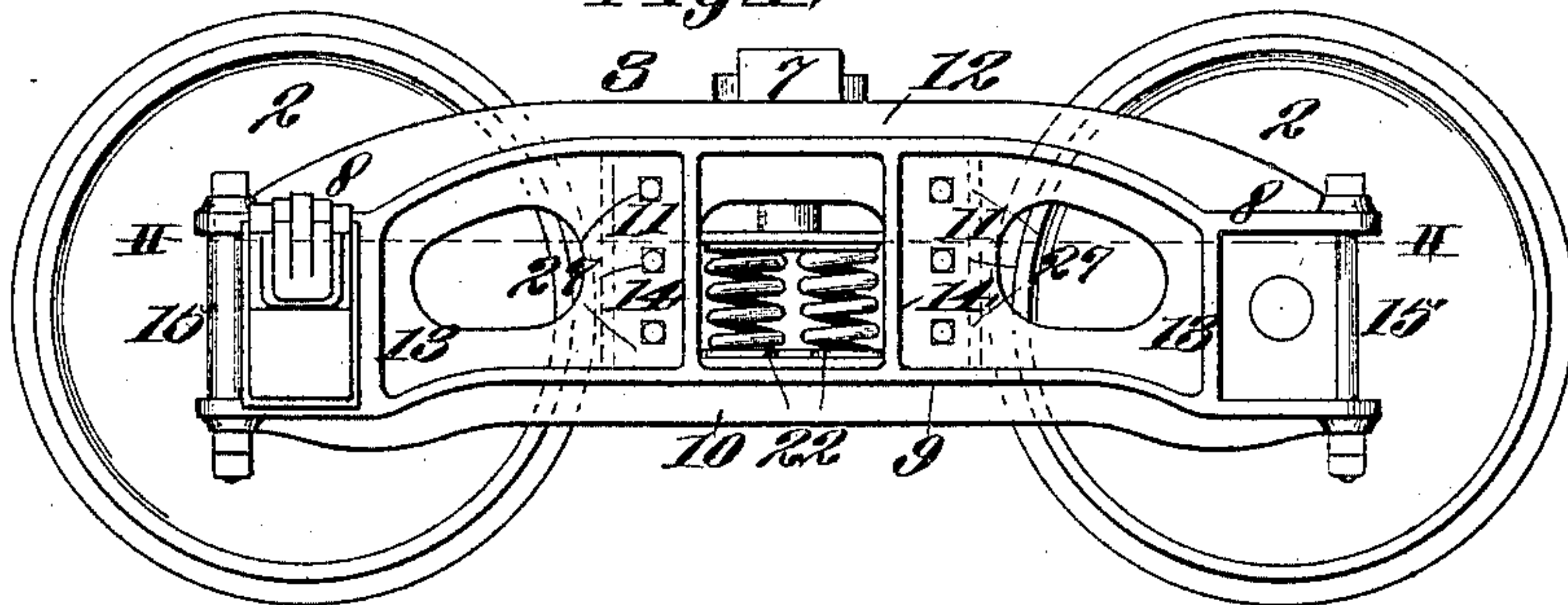


Fig. II.

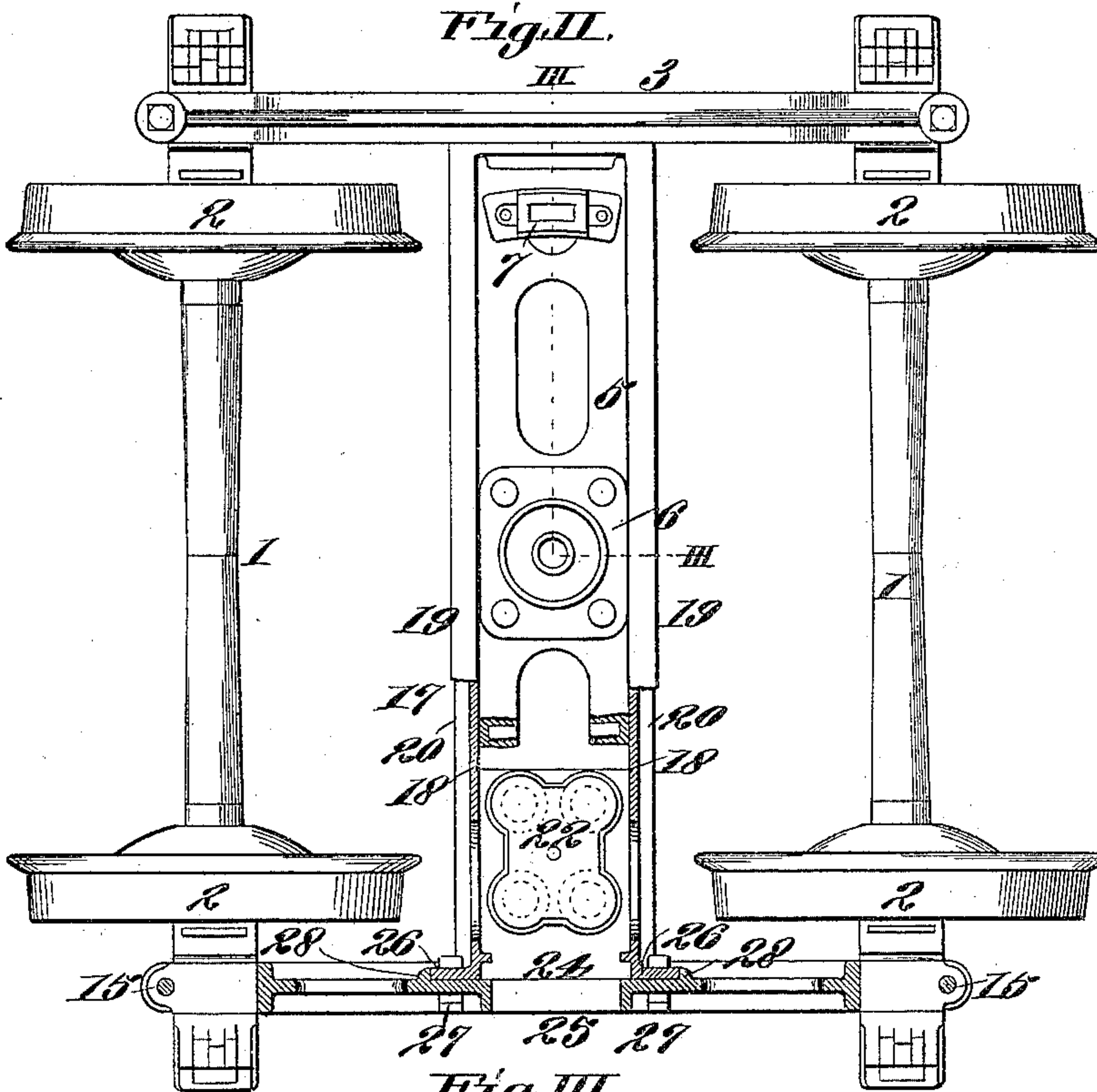
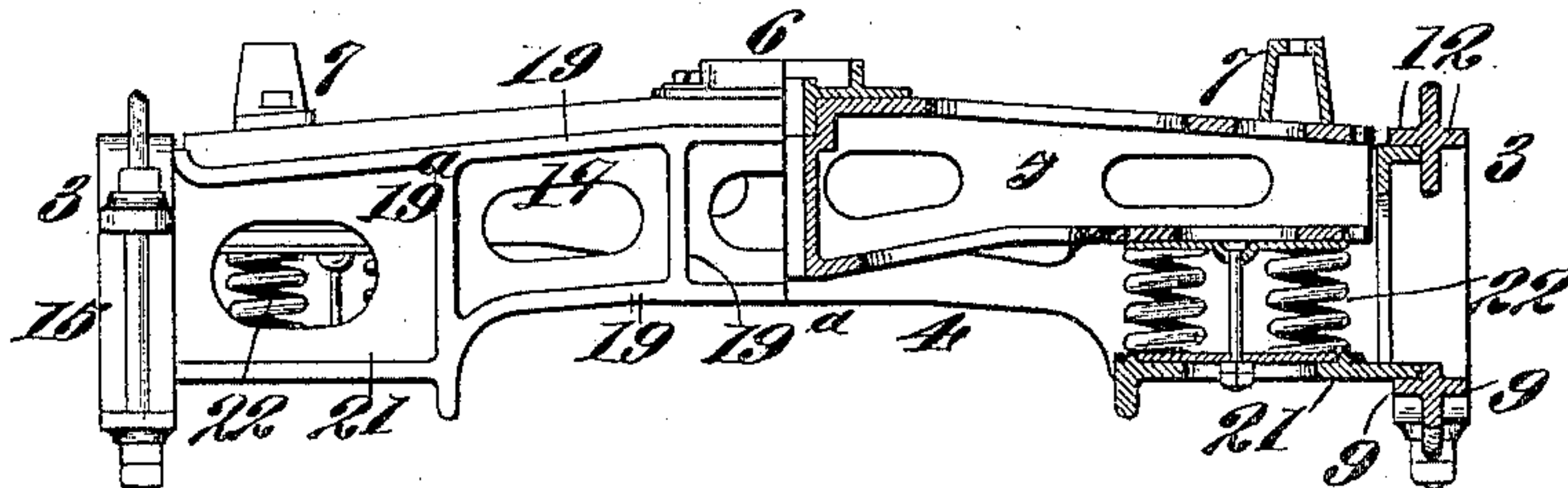


Fig. III.



Attest:  
*E. S. Knight*  
*A. V. Alstander*

Inventor:  
*Thos. M. Gallagher*  
By *Wm. H. Bro*  
*attys*

(No Model.)

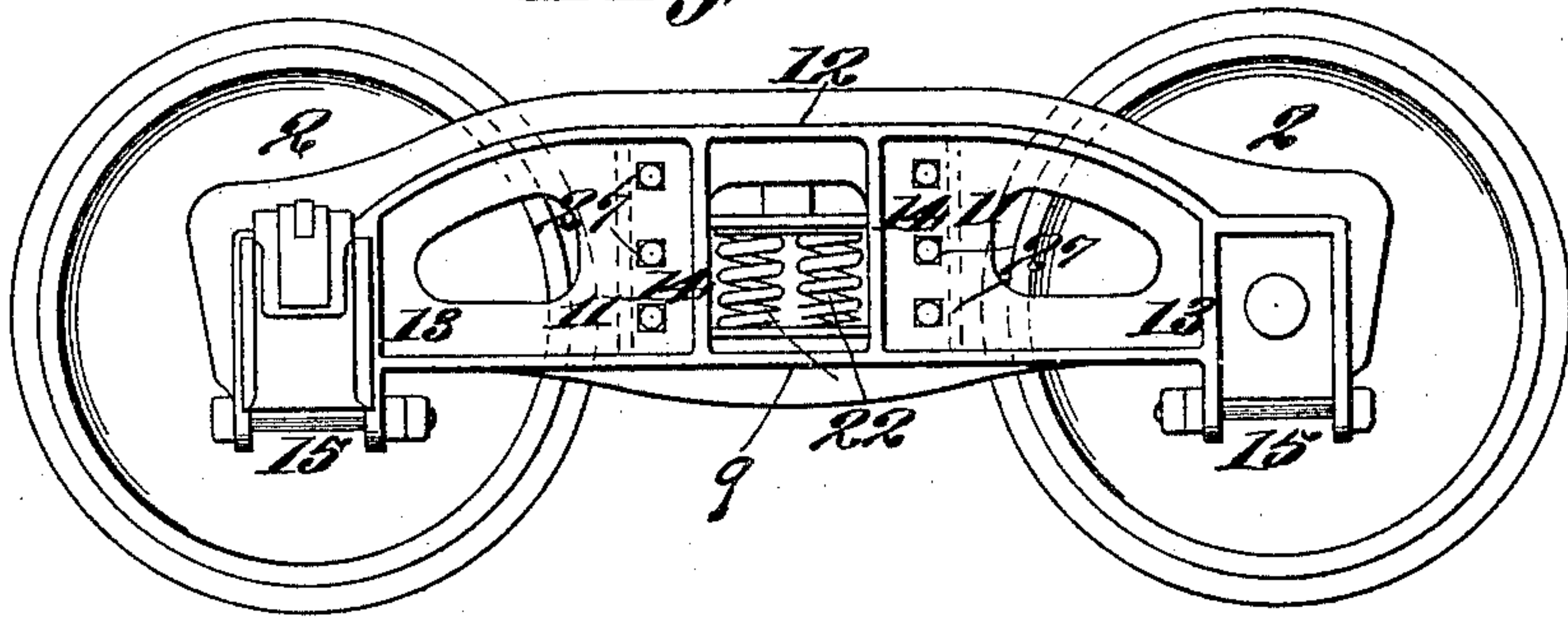
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T. M. GALLAGHER.  
TRUCK FRAME.

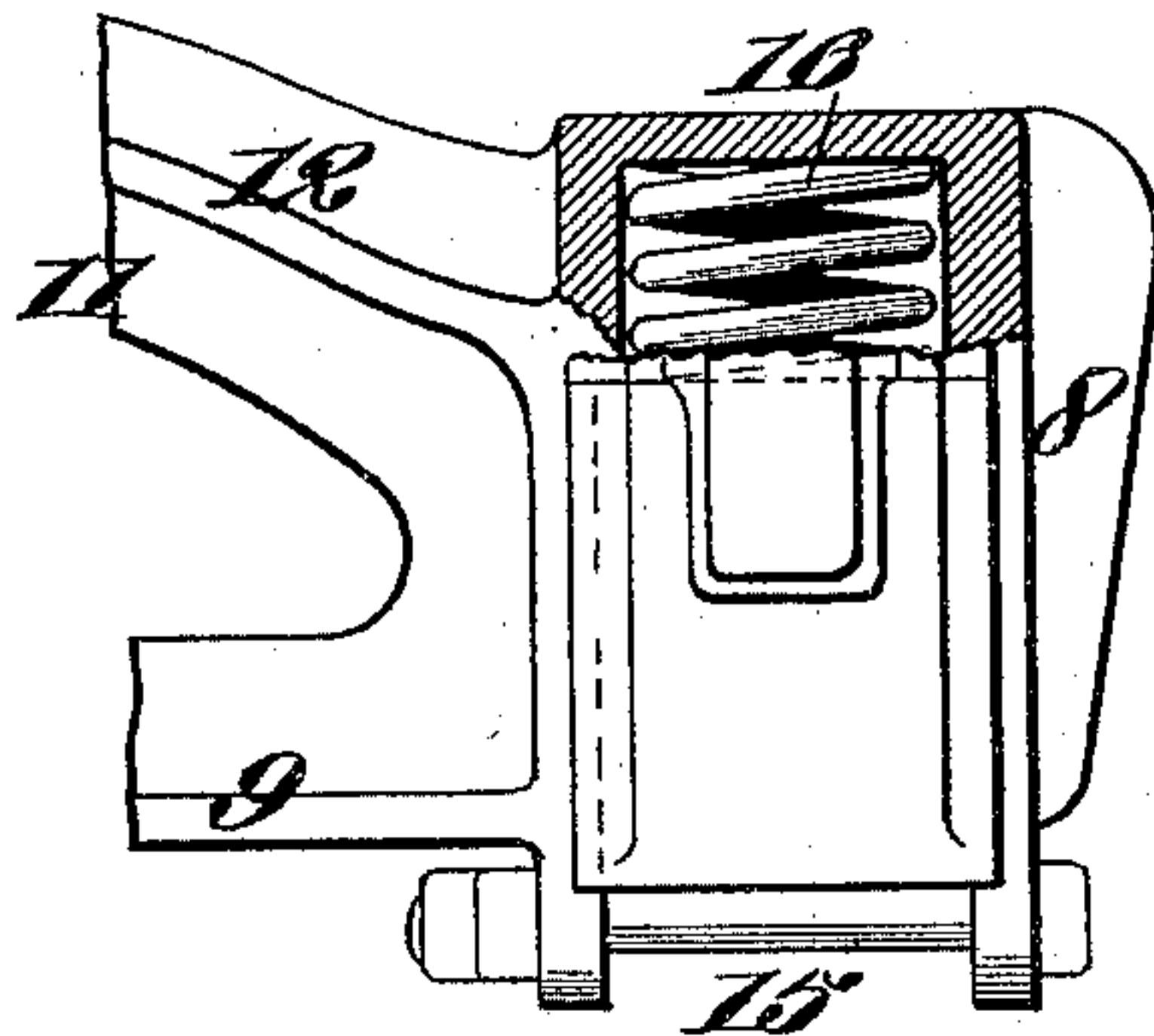
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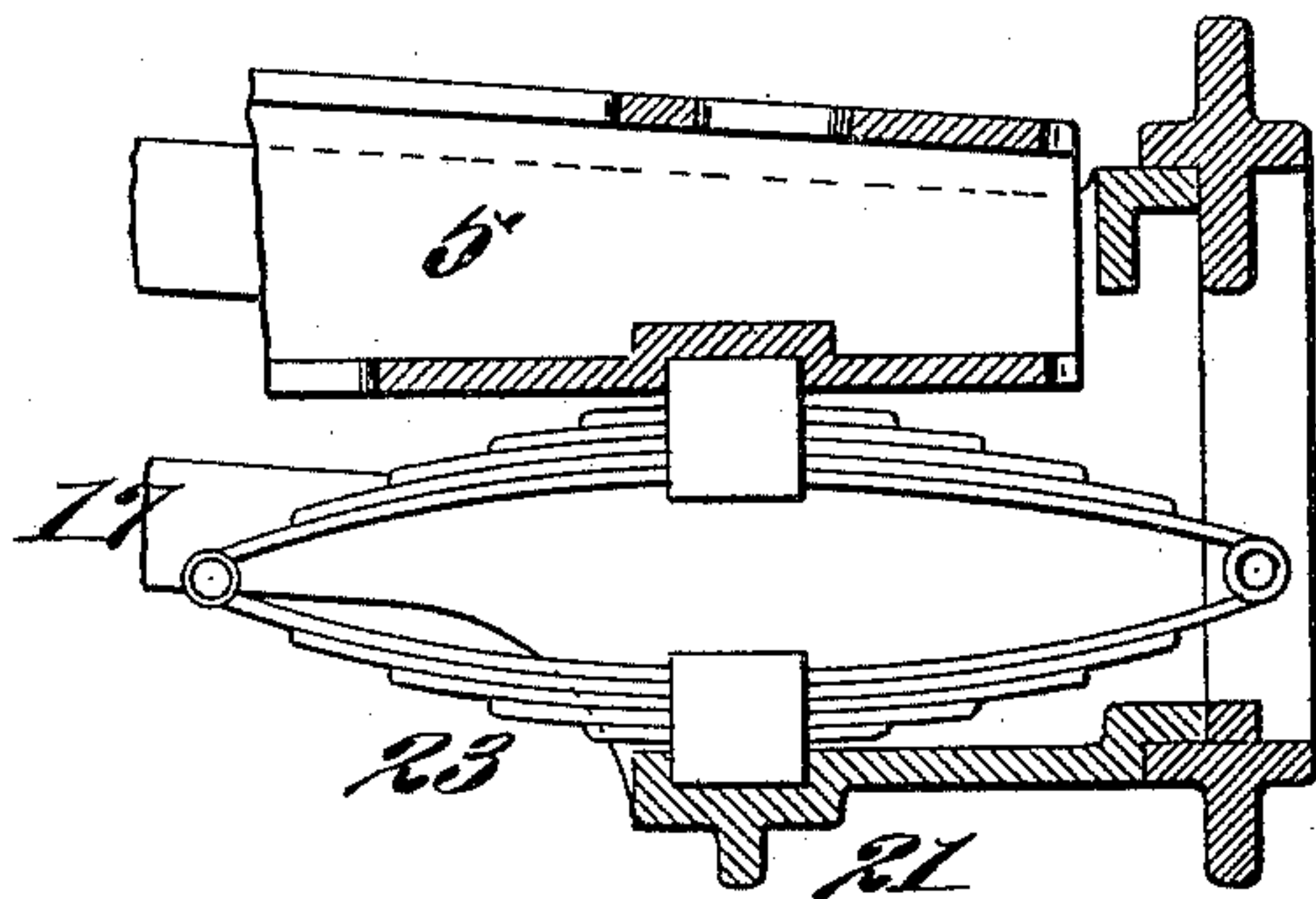
*Fig. IV.*



*Fig. V.*



*Fig. VI.*



*Attest:*  
*E. S. Knight*  
*A. V. Alexander*

*Inventor:*  
*Thos M. Gallagher,*  
*By Knight, Bro*  
*attys*



# UNITED STATES PATENT OFFICE.

THOMAS M. GALLAGHER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE SHICKLE, HARRISON & HOWARD IRON COMPANY, OF SAME PLACE.

## TRUCK-FRAME.

SPECIFICATION forming part of Letters Patent No. 604,608, dated May 24, 1898.

Application filed October 18, 1897. Serial No. 655,646. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS M. GALLAGHER, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have  
5 invented a certain new and useful Improvement in Truck-Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

10 The object of my present invention is to produce a car-truck frame which will be neat in appearance, comparatively cheap to manufacture and put together, and which will be strong and substantial.

15 With these ends in view my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a side view of my improved truck. Fig. II is part in plan view and part  
20 in section, taken on the line II II, Fig. I. Fig. III is part in elevation and part in section, taken on the line III III, Fig. II. Fig. IV is a side view illustrating a modified form of pedestal for the side members. Fig. V is  
25 a detail view of a modification wherein springs are located between the axle-boxes and the pedestals. Fig. VI is a detail vertical section illustrating the use of an elliptical instead of a coil spring between the bolster and  
30 the transom.

Referring to the drawings, 1 represents the axle, and 2 the wheels of the truck.

3 represents the side members of the frame of the truck, 4 the transom, and 5 the bolster, the latter being provided with the usual center plate 6 and side bearings 7.

Each side member 3 is composed of a single casting having pedestals 8 at its ends to receive the axle-boxes, and each member has a  
40 lower horizontal flange 9, located, preferably, a short distance above the lower edge 10 of the web 11 of the member, and an upper horizontal flange 12, located a short distance below the upper edge of the web of the member. The flanges 9 and 12 are joined together  
45 at the inner face of the pedestal portions of the side members by means of vertical flanges 13, and they are joined together near their

central portions by means of vertical flanges 14. This formation of the side members produces a construction that is strong and neat  
50 in appearance.

The open ends of the pedestals may be either as shown in Fig. I, in which case the axle-boxes may be removed in a horizontal direction by jacking up the truck-frame sufficient  
55 to relieve the strain on the axle-boxes, or they may be as shown in Fig. IV, when the axle-boxes would be removed by jacking up the frame of the truck until the pedestals are raised above the axle-boxes.  
60

15 represents bolts for retaining the boxes in the pedestals, these bolts being of course removed when it is desired to remove the  
65 axle-boxes.

If desired, springs 16 may be placed between the axle-boxes and the tops of the pedestals, as shown in Fig. V.

17 represents the transom of the truck-frame. This transom is composed of a single  
70 casting, preferably of steel. It is made in box form, having sides 18 with upper and lower outwardly-extending horizontal flanges 19 and 20 and vertical flanges or ribs 19<sup>a</sup>, whereby great strength and neat appearance  
75 are produced. The transom is open at the top and also at the bottom except for shelves or tables 21 near each end which form the seats for the springs 22, as shown in Fig. III. The  
80 springs 22 may consist of a nest of coil-springs at each end of the transom, as shown in Fig. III, or they may be in the form of elliptical springs, as shown at 23, Fig. VI. The ends of the transom are open, as shown at 24, Fig.  
85 II, and these open ends register with openings 25, formed in the webs of the side members of the truck-frame, these openings 25 being located in the middle part of the side members between the vertical flanges 14. By  
90 forming the transom with open ends and providing the openings 25 in the side members the springs 22 may be readily removed and replaced by simply jacking up the bolster, which is accessible through the open bottom of the central part of the transom, and then  
95 removing the springs and replacing them



through the open ends of the transom and the openings in the side members.

The ends of the transom are formed to fit between the flanges 9 and 12 of the side members, as shown in Fig. III, so that the flanges serve to support the transom and hold it from twisting as well as vertical movement. The ends of the transom are provided with outwardly-extending flanges 26, that fit against the webs of the side members and are secured thereto by means of bolts or rivets 27. The inner faces of the webs of the side members are preferably provided with ribs 28, against which the flanges 26 bear, and which further serve to hold the side members rigidly to the transom and relieve the connecting-bolts 27 from strain.

The bolster 5 fits in the pocket of the transom formed by the vertical side 18 of the latter. The ends of the bolster rest upon the springs 22, as indicated in Fig. III. The bolster is thus free to move vertically under the action of the springs, while it is held from other than vertical movement by the transom that receives it, there being no necessity for connection between the bolster and the transom other than that the former rests within the latter.

I claim as my invention—

1. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom; each side member consisting of a vertical web having upper and lower horizontal flanges and vertical flanges 14 connecting said horizontal flanges at the middle portion of the member, substantially as set forth.

2. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom; said side members each consisting of a web having upper and lower horizontal flanges and vertical flanges 13 and 14 connecting said horizontal flanges, substantially as set forth.

3. In a truck-frame, the combination of side members, a transom secured to the side members and provided with spring-seats, and a bolster carried by the transom; said side members consisting each of a web having upper and lower flanges connected by vertical flanges; said webs being cut away between said vertical flanges to permit the removal and renewal of the truck-springs, substantially as set forth.

4. In a truck-frame, the combination of side members an open-top transom, and a bolster fitting in the transom; said transom having sides, and ends adapted to fit against and be secured to said side members: said sides and ends being made in one integral casting, substantially as set forth.

5. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom: said transom having sides joined at the bot-

tom by shelves to form seats to receive the bolster-springs, and said transom also having ends adapted to fit against and be secured to said side members, said sides, ends and shelves being formed in one integral casting, substantially as set forth.

6. In a truck-frame, the combination of side members, a transom, and a bolster carried by the transom: said transom having sides, open at bottom to permit the bolster to be raised from beneath, and said transom having ends adapted to fit against and be secured to the side members, said sides and ends being formed in one integral casting, substantially as set forth.

7. In a truck-frame, a transom having sides, and bottom shelves to form spring-seats, and having ends adapted to fit against the side members of the truck-frame: said sides, ends and shelves being formed in one integral casting, substantially as set forth.

8. In a truck-frame, a transom having sides, bottom shelves to form spring-seats, and end flanges adapted to fit against and be secured to the side members of the truck-frame: said sides, shelves and flanges being formed in one integral casting, substantially as set forth.

9. In a truck-frame, the combination of side members, having horizontal flanges and vertical ribs on the inner faces of their webs, and a transom having end flanges and adapted to fit between said flanges and ribs on the side members and occupying the entire space surrounded by said flanges and ribs, substantially as set forth.

10. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom; said transom having open ends, and said side members having vertical webs provided with openings registering with the open ends of the transom, whereby the bolster-springs may be removed and replaced through said openings, substantially as set forth.

11. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom said transom being formed with sides having horizontal flanges, an open top and spring-seats at the ends of its bottom, all made integral, substantially as set forth.

12. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom; said transom being formed with sides having horizontal and vertical flanges, an open top, and spring-seats at the bottom of each end of the transom, all made integral, substantially as set forth.

13. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom; said transom having sides, and open at the top to receive the bolster and having spring-seats, and said side members consist-



ing of vertical webs and flanges, and having pockets over the journal-boxes to embrace the springs, substantially as set forth.

5 14. In a truck-frame, the combination of side members, a transom secured to the side members, and a bolster carried by the transom, said transom having lateral flanges at the ends, and said side members having vertical ribs on their inner faces against which

said lateral flanges abut, substantially as set forth.

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

THOMAS M. GALLAGHER.

In presence of—

E. S. KNIGHT,

N. V. ALEXANDER.