

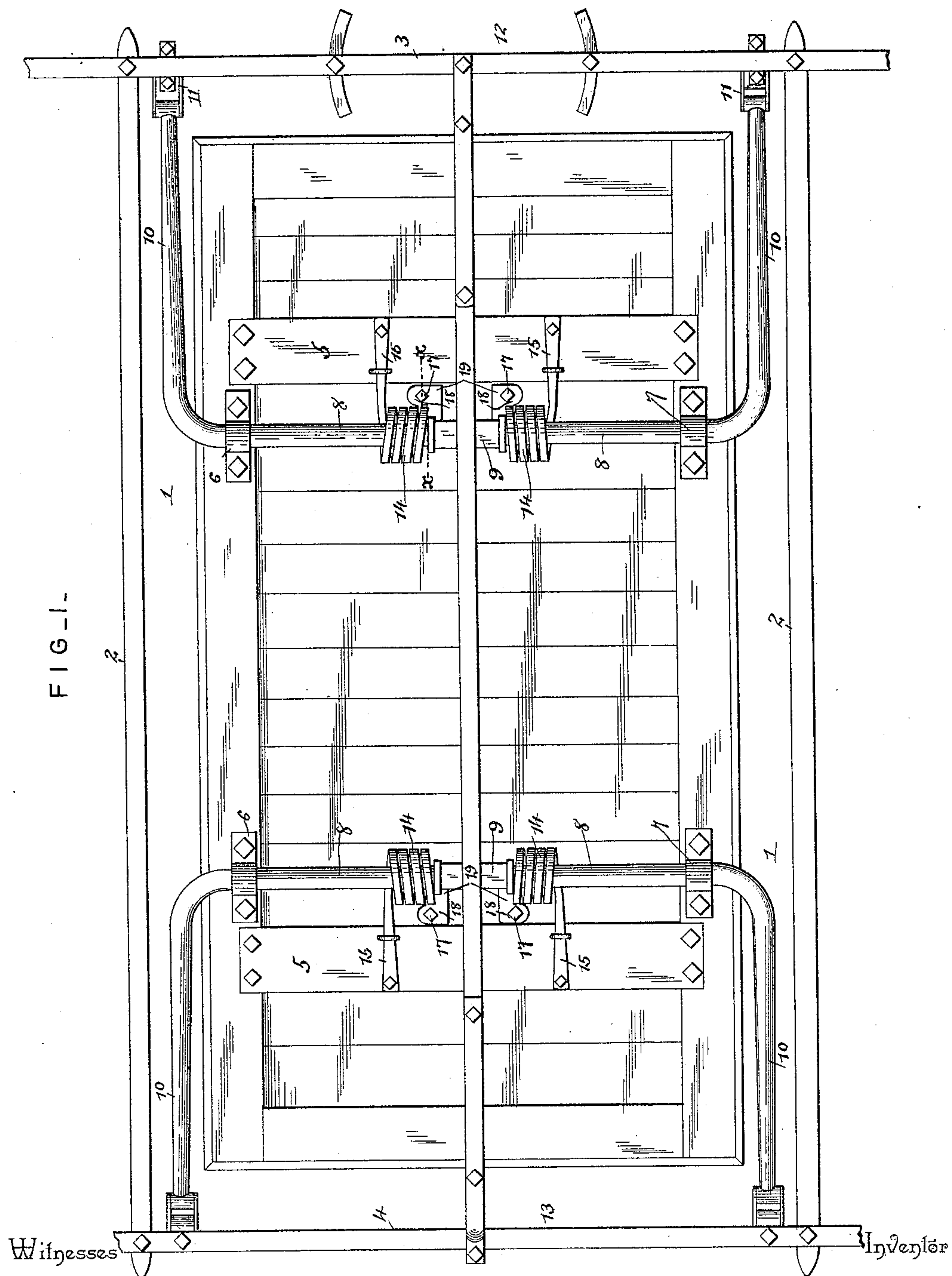
(No Model.)

2 Sheets—Sheet 1.

F. DUPEE.
SPRING GEAR FOR VEHICLES.

No. 438,285.

Patented Oct. 14, 1890.



Jas. H. McLaughlin
H. J. Riley

By his Attorneys,

Frank Dupee

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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FIG. 2 _

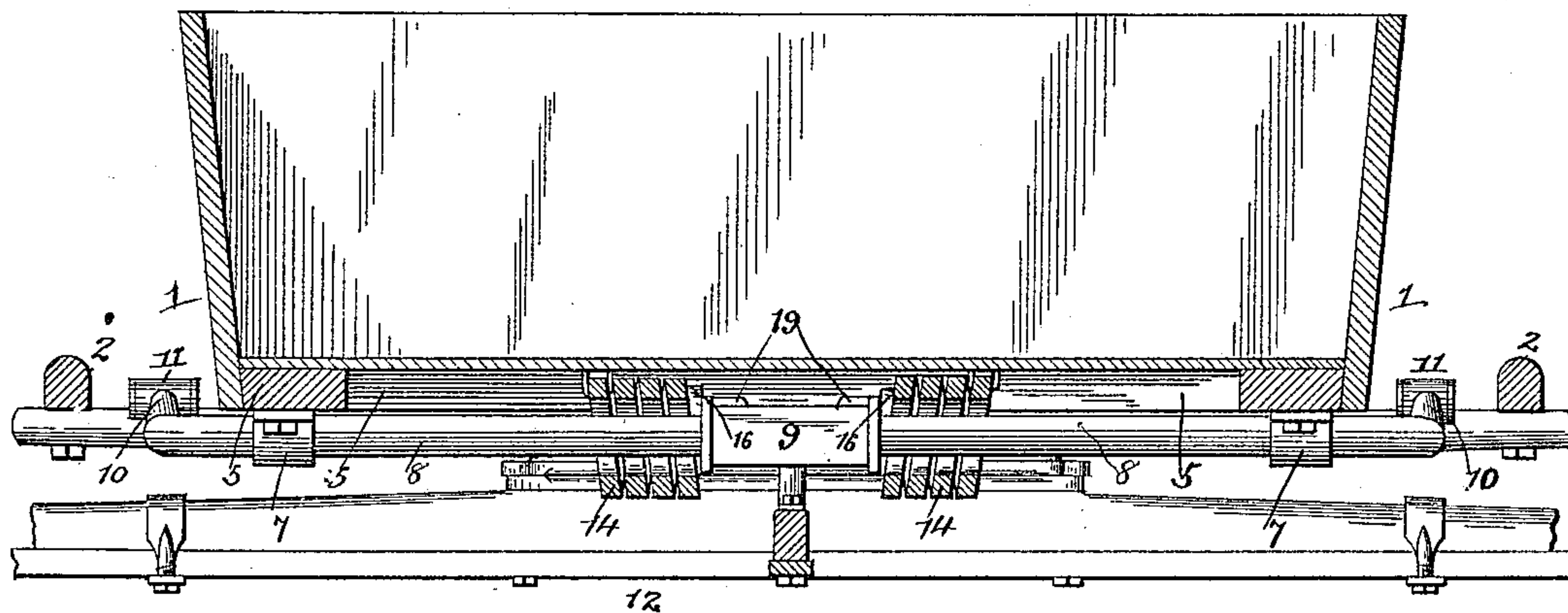


FIG. 4 _

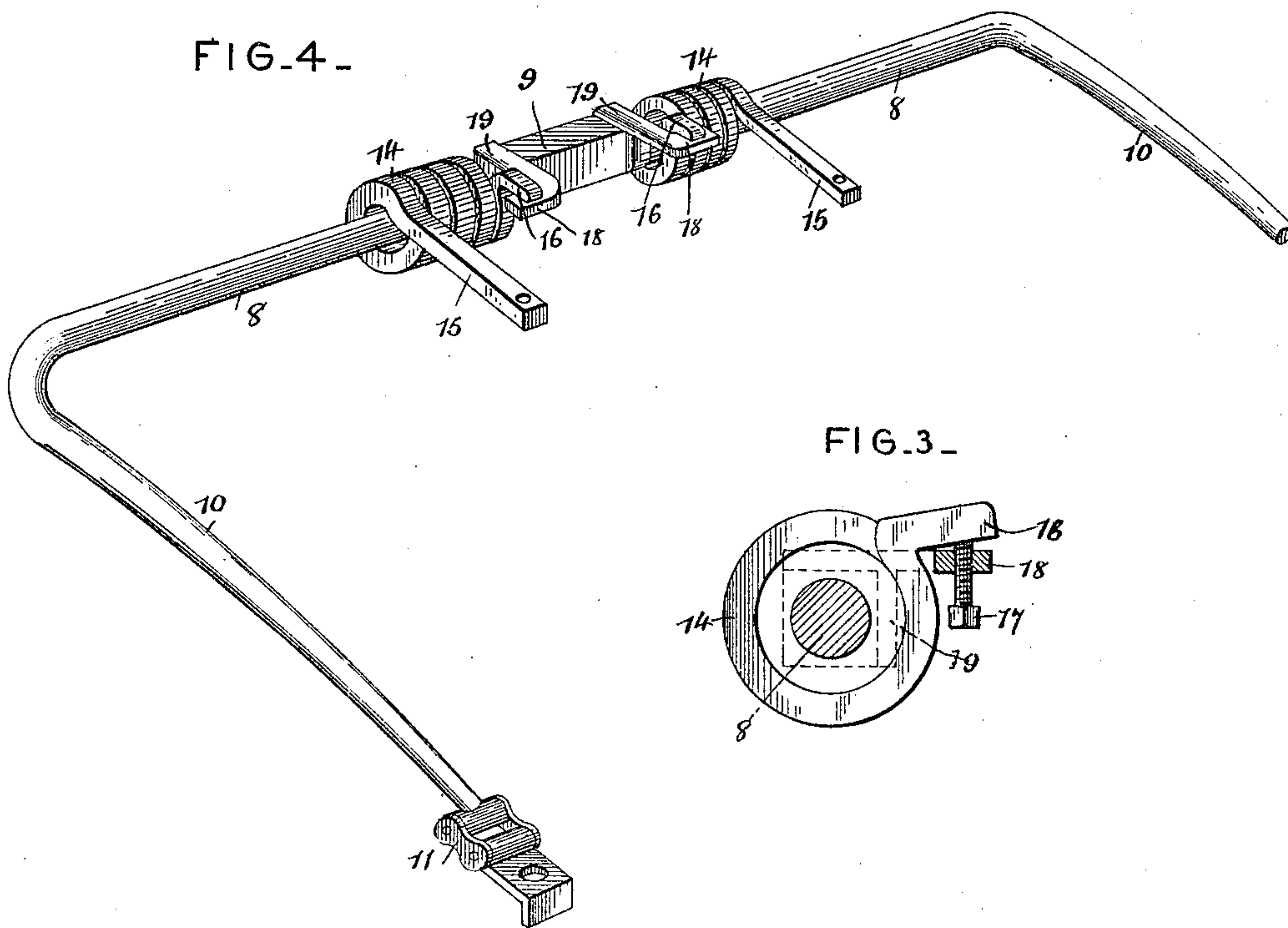
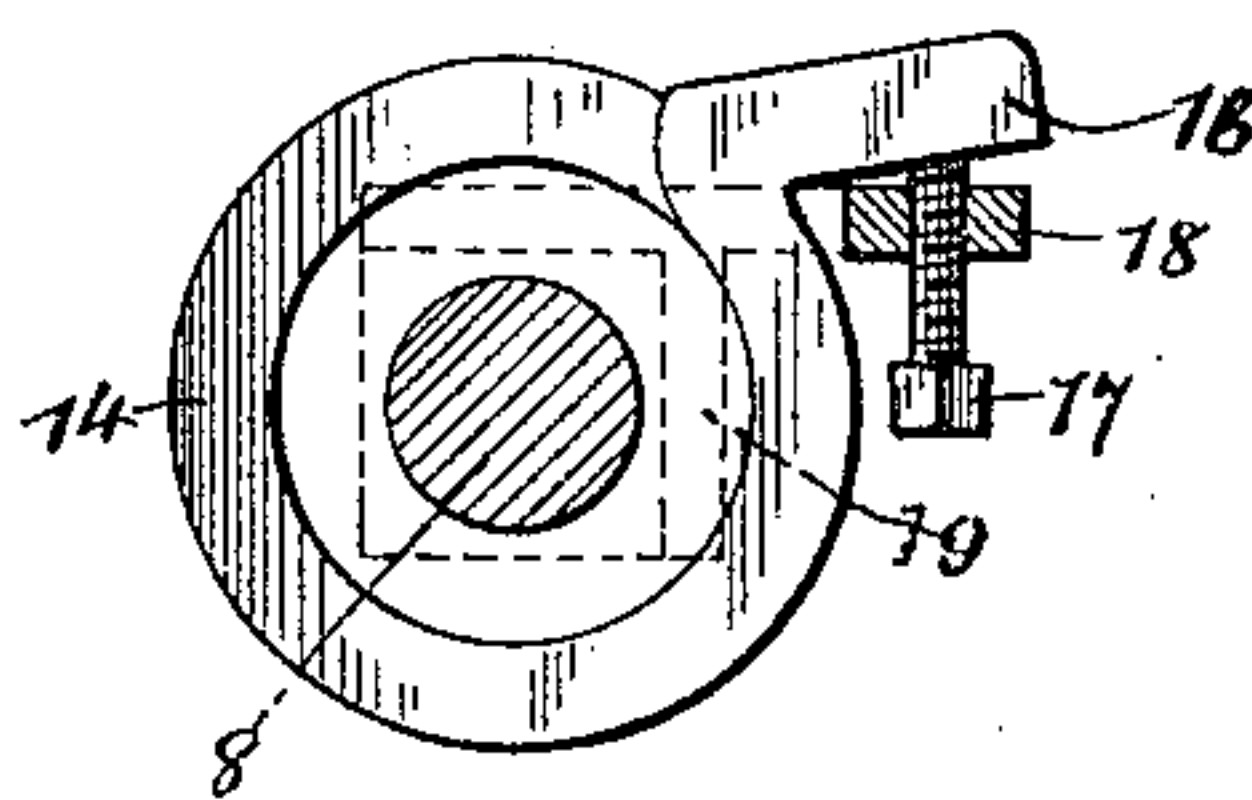


FIG. 3 _



Witnesses

Jas. K. McLaughlin
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UNITED STATES PATENT OFFICE.

FRANK DUPEE, OF LAWRENCEVILLE, NEW YORK.

SPRING-GEAR FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 438,285, dated October 14, 1890.

Application filed August 28, 1890. Serial No. 363,238. (No model.)

To all whom it may concern:

Be it known that I, FRANK DUPEE, a citizen of the United States, residing at Lawrenceville, in the county of St. Lawrence and State of New York, have invented a new and useful Running-Gear for Vehicles, of which the following is a specification.

The invention relates to improvements on the running-gear for vehicles illustrated in Patent No. 389,798, granted me September 18, 1888.

The object of the present invention is to simplify and improve the construction of the running-gear for vehicles illustrated in the above-mentioned patent, and to simplify the attachment of the springs and provide means for regulating their tension and enable the transverse bars to be constructed either round or square.

The invention consists in the construction and novel combination and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a reverse plan view of running-gear embodying the invention. Fig. 2 is a transverse sectional view. Fig. 3 is a detail sectional view on line *x x* of Fig. 1. Fig. 4 is a detail perspective view showing the transverse bars and spring.

Referring to the accompanying drawings, 1 designates the support-frame for the body of a vehicle, which frame is composed of side sill 2, front and rear sills 3 and 4, and transverse bars 5, and the said frame is provided with bearings 6 and 7, in which are journaled transverse bars 8, which are preferably round, and have their inner ends connected by coupling-blocks 9, and have their outer ends provided with integral longitudinal arm 10, which are connected by clips 11 with a head-block 12, and a rear axle 13, similar to those shown in the patent above mentioned. The transverse bars 8 have arranged on them coiled springs 14, which are located at the end of the coupling-block, and have their outer ends 15 extended and secured to the lower faces of the transverse bars 5 of the frame, and their inner ends 16 are provided with projections or bends arranged horizontally and are engaged by adjusting-screws 17, adapted to regulate the tension of the coiled

springs. The adjusting-screw 17 engages a threaded perforation of an arm 18 of an angular bracket 19, composed of perpendicular plates and secured to or forming a part of the coupling-block 9. By adjusting the screws the tension of the coiled springs, which are located at the ends of the coupling-blocks, may be regulated and be adjusted to the load of the vehicle.

By this construction the collars employed in the above-mentioned patent are dispensed with and the bars may be constructed either square or round.

From the foregoing description and the accompanying drawings the construction, operation, and advantages of the invention will readily be understood.

What I claim is—

1. In a vehicle-gear, the combination of the frame, the transverse bars 8, the coupling-box connecting the inner ends of the bar and provided with an adjusting-screw, and the coiled springs arranged on the transverse bars, and each having one end secured to the frame and the other end arranged to be engaged by an adjusting-screw, substantially as described.

2. In a vehicle-gear, the combination of the frame, the transverse bars journaled on the frame, the coiled springs arranged upon the bars and each having one end secured to the frame, and the brackets arranged upon the bars and provided with adjusting-screws engaging the springs, substantially as described.

3. In a vehicle-gear, the combination of the frame, the transverse bars journaled in suitable bearings of the frame, the coiled springs arranged on the bars and each having one end secured to the frame, and the brackets mounted upon the bar and composed of perpendicular plates, and provided with arms having adjusting-screws engaging the spring to regulate the tension thereof, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK DUPEE.

Witnesses:

T. W. KINSLEY,
S. H. ROBERTS.