

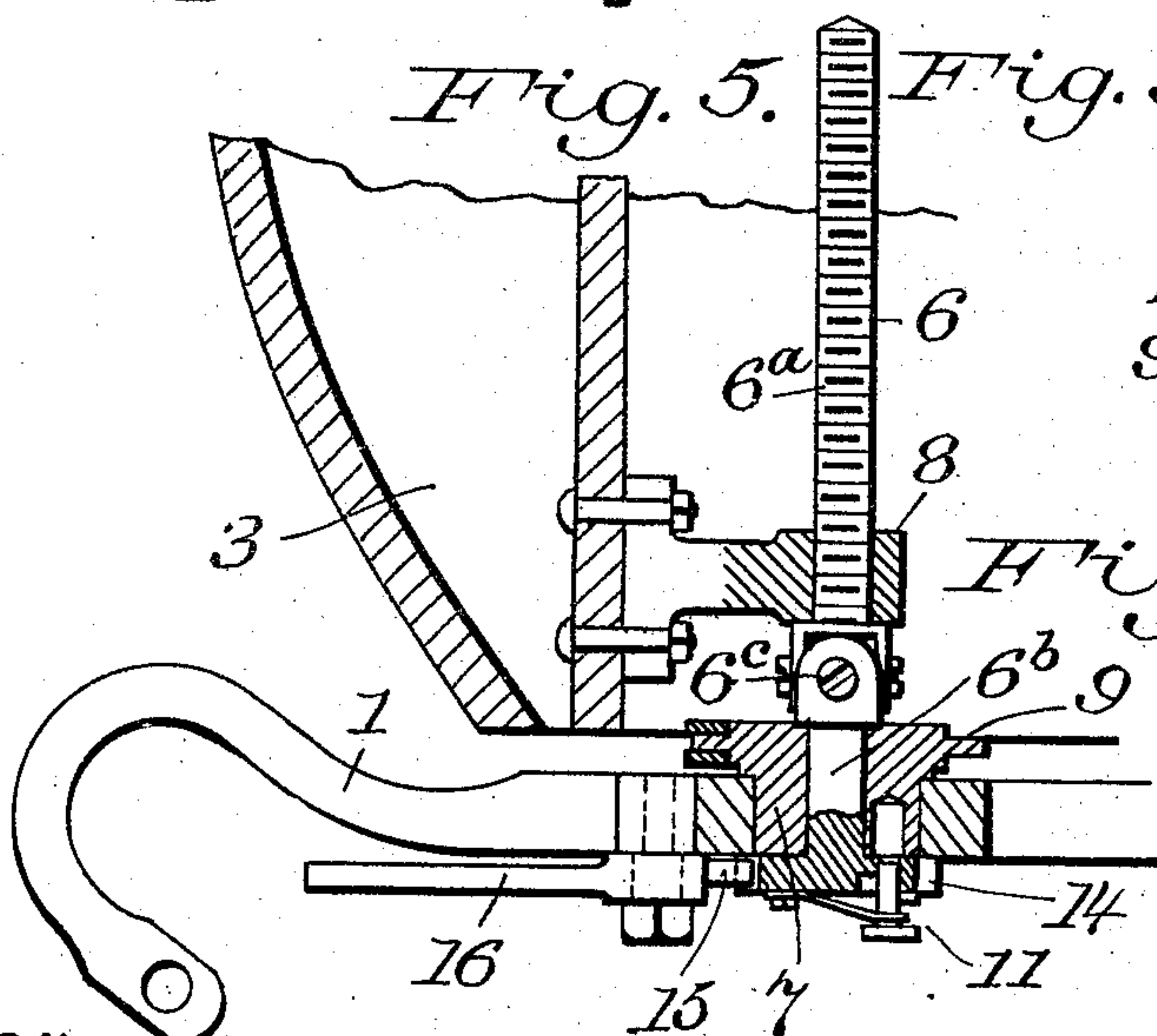
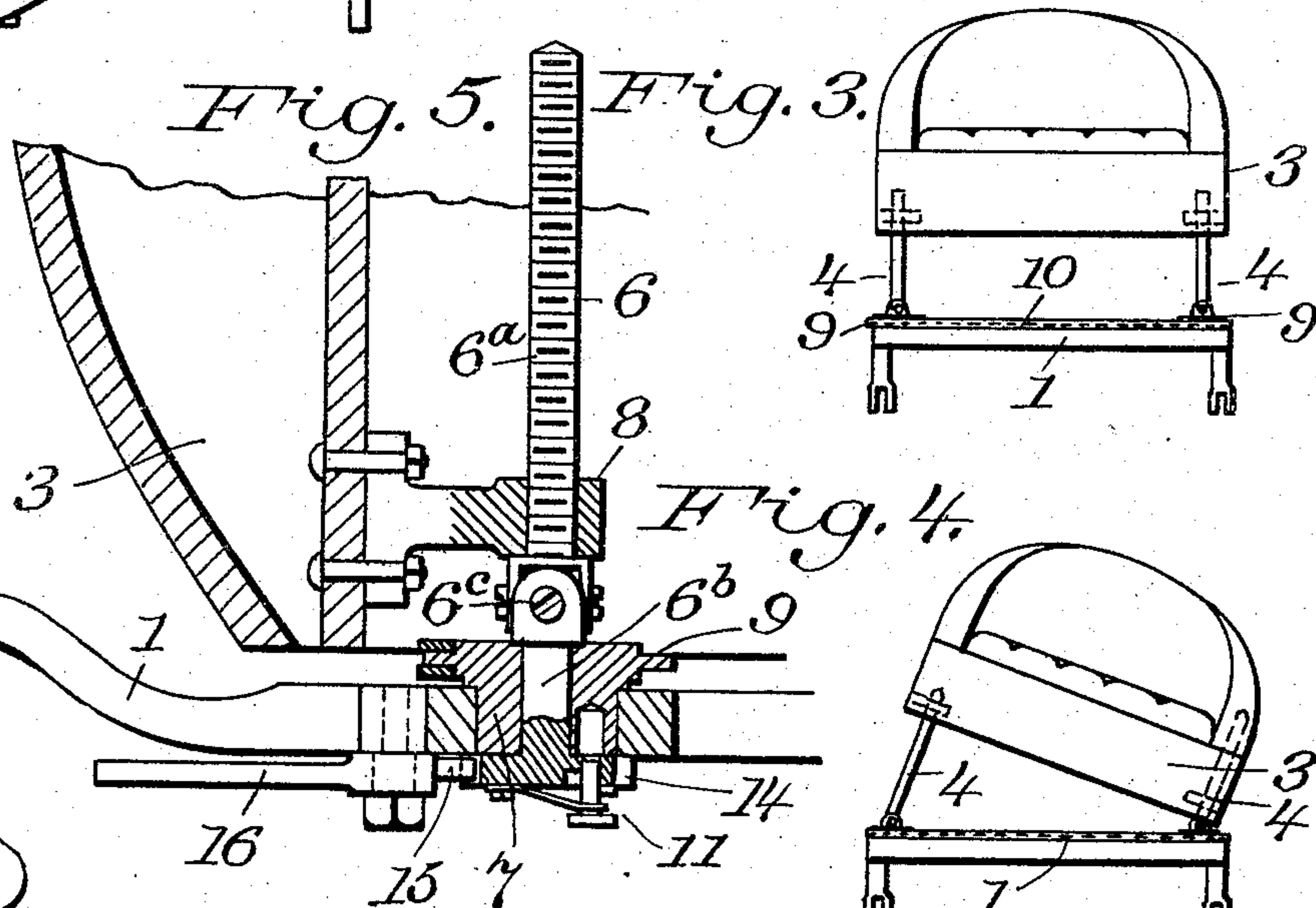
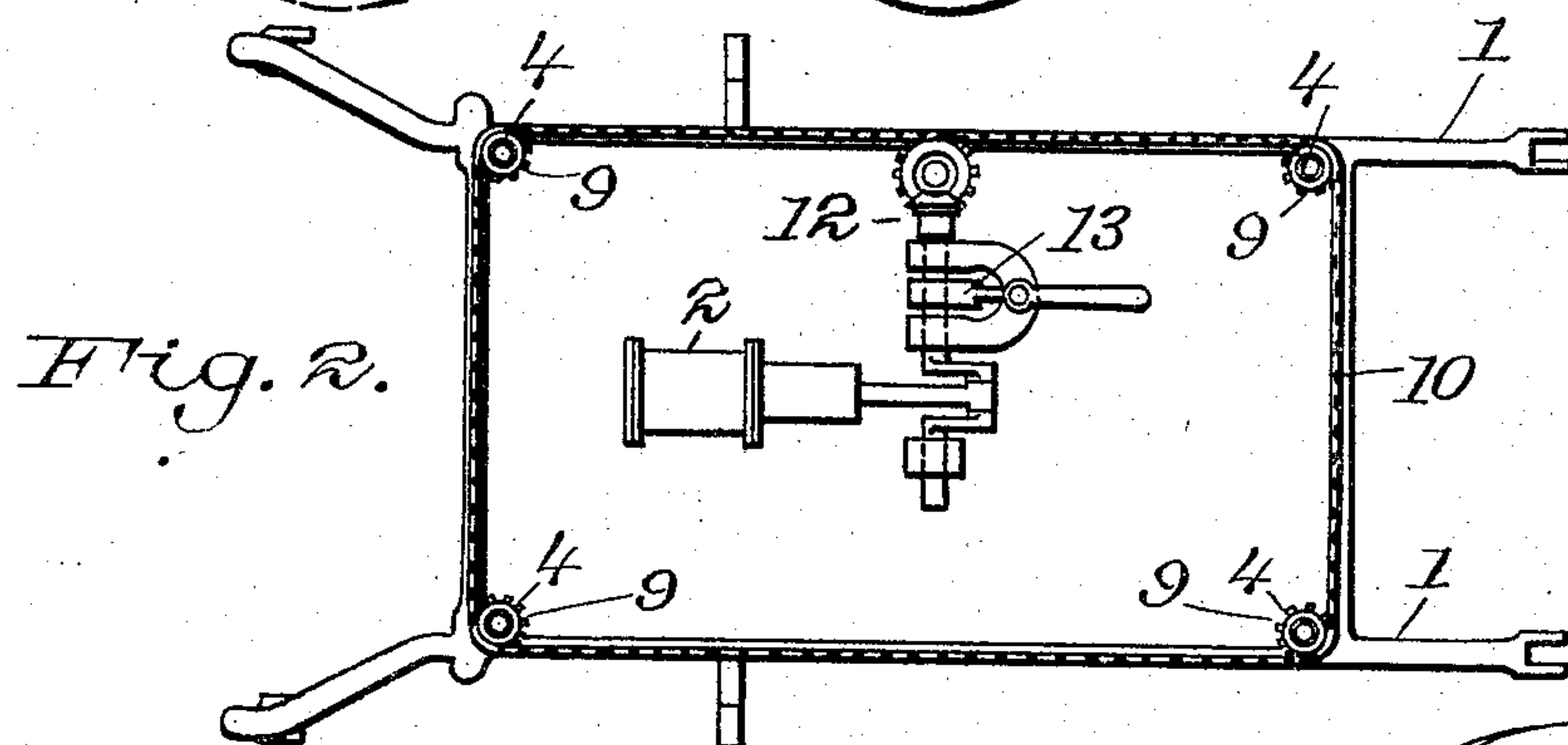
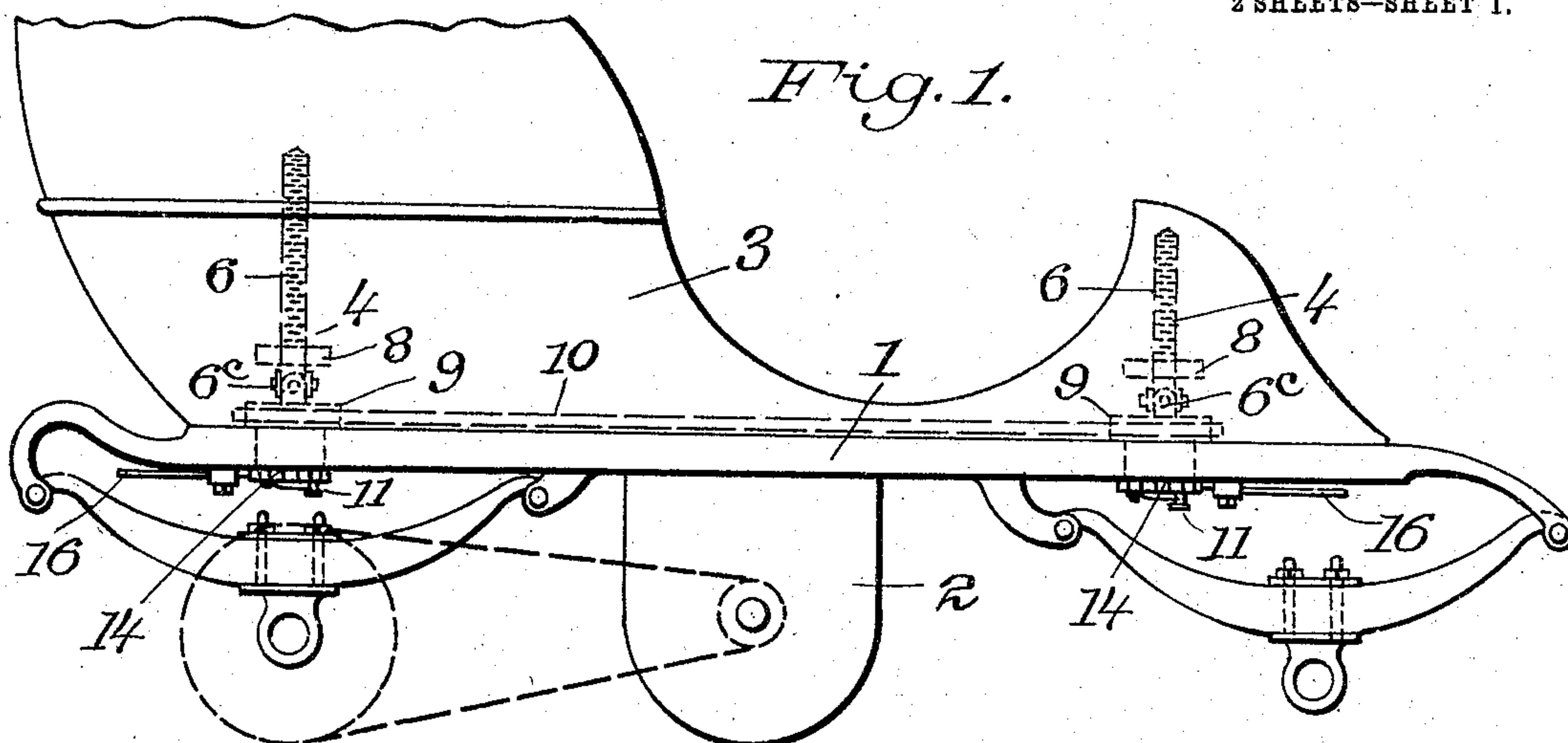
No. 782,520.

PATENTED FEB. 14, 1905.

E. PEARL.
VEHICLE.

APPLICATION FILED MAY 16, 1904.

2 SHEETS—SHEET 1.



Witnesses
Bertha Stulz
J. S. Orthick

Eugene Pearl
Inventor

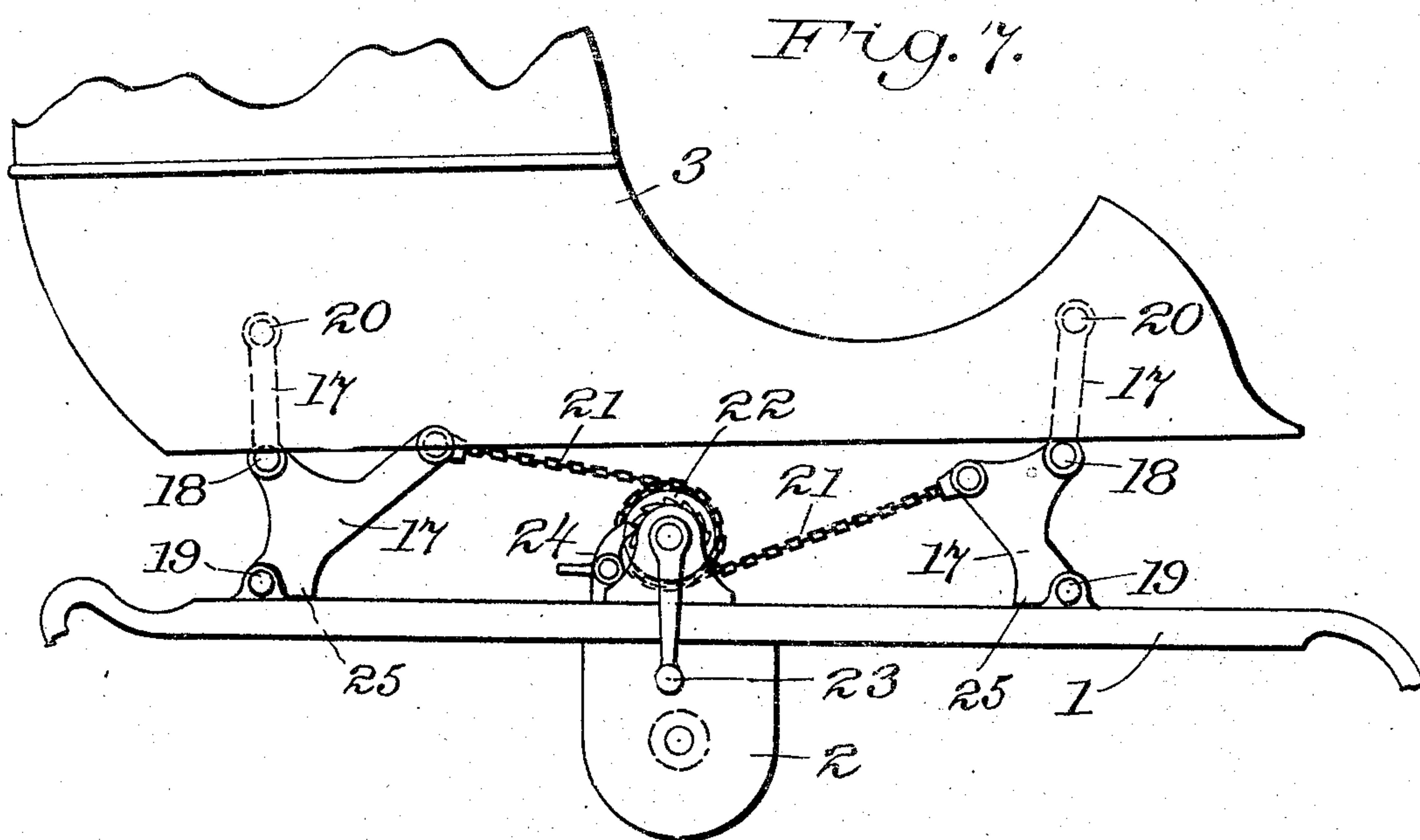
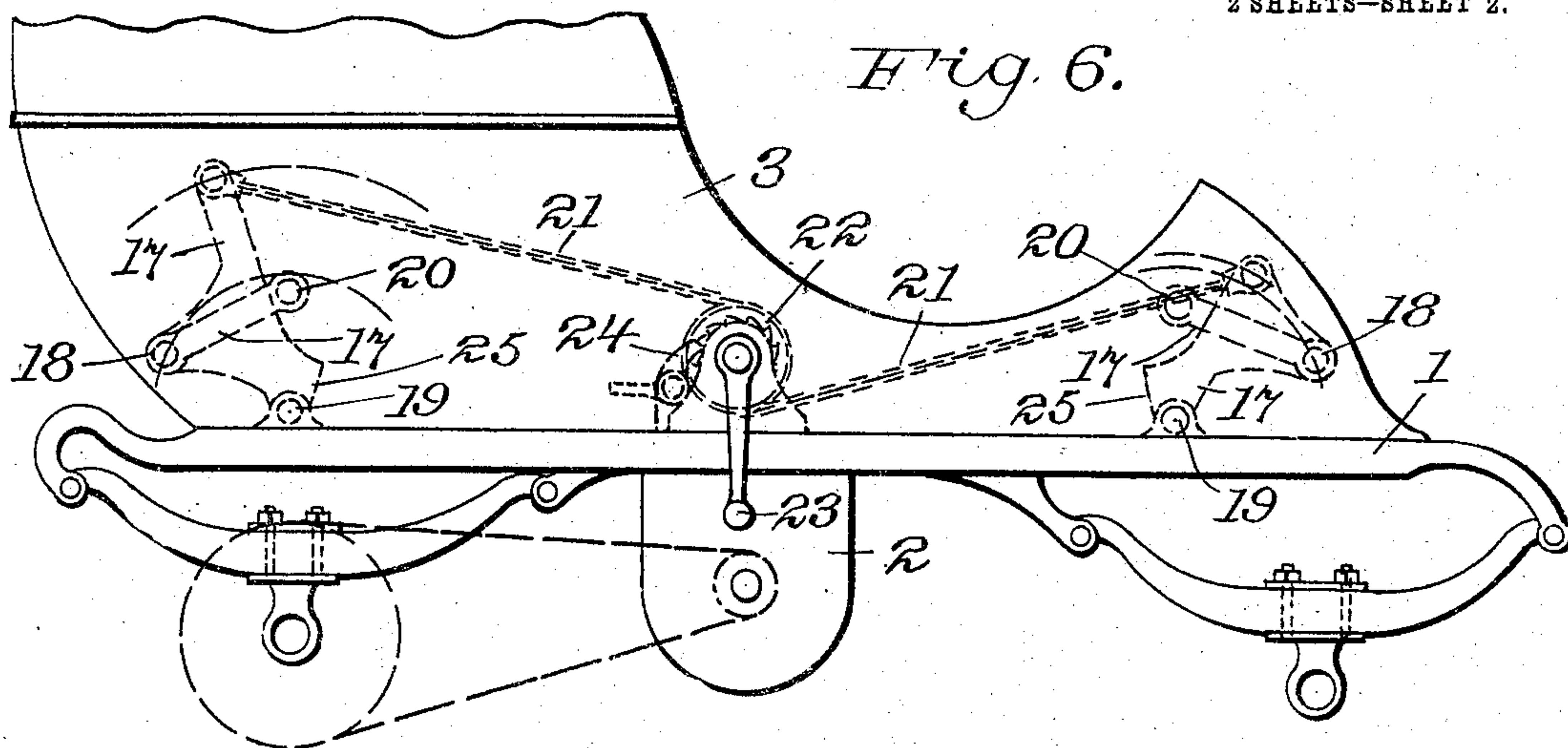
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UNITED STATES PATENT OFFICE.

EUGENE PEARL, OF PASSAIC, NEW JERSEY.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 782,520, dated February 14, 1905.

Application filed May 16, 1904. Serial No. 208,305.

To all whom it may concern:

Be it known that I, EUGENE PEARL, a citizen of the United States of America, residing at Passaic, New Jersey, have invented certain
5 new and useful Improvements in Vehicles, of which the following is a specification.

My invention relates in general to vehicles, and is particularly adapted for use in connection with the class known as "motor-vehicles."

10 Ordinarily great difficulty and inconvenience is encountered in gaining access to the mechanism of motor-vehicles, particularly in instances where a break-down occurs while on the road and immediate repair is required in
15 order that the machine may continue in operation. This results largely from the design of the vehicle, which is built low, without sufficient clearance between the bottom thereof and the ground to provide working space, and
20 access to the mechanism of which from the above is impossible, owing to the use of a heavy cumbersome body inclosing the working parts. In some types of vehicles portions of the body are removable to expose and give
25 access to the mechanism for purposes of examination, repair, &c., and while such provision would serve where a skilled machinist is available and only trifling repair is required it proves insufficient for the ordinary operator
30 possessing but little knowledge of machinery and who is unable, therefore, to locate and determine the trouble at a glance.

In order to overcome the difficulty above referred to and facilitate examination, repair,
35 &c., of any part or portion of the mechanism of a motor-vehicle, I propose to raise or tilt the vehicle-body clear of the frame and running-gear, either by power—i. e., through the medium of the vehicle-motor—or by hand-operated devices.
40

The object of the present invention is therefore the provision of means, in connection with a motor-vehicle, for adjusting the body relatively to the frame and running-gear thereof
45 for the purpose of exposing any part or portion of the mechanism, and thereby rendering the same readily and conveniently accessible for examination, repair, &c.

Mechanism suitable for carrying my invention into effect is illustrated in the accompa-
50

nying drawings; but I do not wish to be understood as limiting myself to either the exact construction or arrangement of parts, as other mechanisms may be employed operating in substantially the same way to produce the
55 same result.

In the drawings, Figure 1 is a view in elevation illustrating the application of one embodiment of my invention to a motor-vehicle, a portion only of the latter being shown. Fig. 60
2 is a plan view of the frame thereof with body removed. Fig. 3 is a front view of the vehicle, showing the entire body elevated above the frame thereof. Fig. 4 is a similar view showing the body tilted. Fig. 5 is a de- 65
tail view of one of a series of jack-screws employed for raising the vehicle-body from the frame, showing also the operating-gear and clutch mechanism. Fig. 6 illustrates a modified form of lifting mechanism, and Fig. 7 is 70
a similar view showing the same adjusted to raise the vehicle-body.

Referring now to the drawings, 1 represents the frame of a motor-vehicle, upon which the motor 2, running-gear, (not shown,) and
75 body 3 are ordinarily mounted. Between the frame and body there is arranged mechanism suitable for elevating the body above and clear of the frame. This mechanism may be such as to raise the entire body or either side 80
or end thereof, and it may be operated by power by means of the motor or by hand, as desired. Any suitable mechanism, therefore, serving this purpose may be employed. The mechanism herein shown comprises a series 85
of screw-jacks 4, there being two mounted on each side of the frame at or near the ends thereof. These jacks may be of any suitable or well-known construction and operated singly, in pairs, or they may all be operated 90
at the same time when it is desired to raise the entire body of the vehicle above the frame.

As shown in Fig. 5, each jack consists of a vertical shaft 6, rotatably mounted in a sleeve 7, which is in turn rotatably mounted in the 95
frame of the vehicle. The screw-shafts are formed in two parts 6^a 6^b, connected by a universal or other suitable joint 6^c. That portion 6^a of the shaft above the universal joint is threaded for engagement with lugs or pro- 100

jections 8 of the body. Formed in part with the sleeve 7 there is a sprocket-wheel 9, around which chain 10 passes to connect the several jacks.

5 By means of individual clutches 11 each jack may be thrown in or out with the driving-gearing, and it will thus be seen that when the entire body is to be raised above the frame the clutches would be adjusted to throw all of
10 the jacks in with the driving-gear; but in raising one side or end of the body only the jacks on that particular side or end would be thrown in.

Any suitable gearing, such as that shown
15 at 12, may be employed as a driving connection between the vehicle-motor and the chain when the jacks are to be operated by power, a clutch 13 being provided for throwing the motor in or out, as required.

20 In order that the jacks may be operated by hand, if desired, they are each provided with a ratchet-wheel 14 in part with the sprocket-sleeve, and coöperating therewith is a pawl 15, carried by a lever 16, by which it is given
25 motion to effect rotation of the screw-shaft through the ratchet and clutch above described.

It may be desirable in some instances to provide only for raising one side or end of
30 the vehicle-body, as shown, for example, in Fig. 4, and in such cases an ordinary pivotal connection might be substituted for the universal joint shown uniting the members or sections of the screw-shafts. Two chains
35 might also be employed instead of one shown and arranged to connect the jacks in pairs, thereby dispensing with the individual clutches by which the jacks are thrown in or out of gear with the chain, as above described.

40 Figs. 6 and 7 illustrate the substitution of toggle-levers 17 17 for the screw-jacks, such levers being pivotally united at 18 and connected, respectively, with the vehicle frame and body thereof, as indicated at 19 and 20.
45 The adjustment of these levers is effected by

means of chains 21 21, winding upon a drum 22, which latter is operated by a crank 23 and secured by a pawl and ratchet 24. The construction of these levers may be such as to limit their movement relatively to each other, 50 stops 25 being provided for this purpose.

The operation, advantages, &c., of the mechanism will be obvious from the foregoing description.

Having therefore described my invention, 55 what I claim as new is—

1. In a vehicle, the combination of the frame and body thereof, extensible connections between the body and frame for adjusting one relatively to the other, an individual control- 60 ling device for each connection, and operating means common to the several connections.

2. In a vehicle, the combination of the frame and body thereof, extensible connections between the frame and body for adjusting one 65 relatively to the other, operating means common to the several connections, means for throwing one or more of said connections in or out of gear with the operating means, a motor, and requisite gearing connecting said 70 motor and operating means.

3. In a vehicle, the combination of the frame and body thereof, screw-jacks connecting the frame and body, operating means common to the several jacks, and individual clutches for 75 throwing said jacks in or out of gear with the operating means.

4. In a vehicle, the combination of the frame and body thereof, screw-jacks operatively mounted between the frame and body and 80 provided with universal connections, operating means common to the several jacks, and individual clutches for throwing said jacks in or out of gear with the operating means.

In testimony whereof I affix my signature in 85 the presence of two witnesses.

EUGENE PEARL.

Witnesses:

BERTHA STULZ,

INGERSOLL LOCKWOOD.