

Nov. 26, 1935.

H. K. WHEELER

2,022,167

MEANS OF STORING MOTOR VEHICLES

Filed Oct. 31, 1930

2 Sheets-Sheet 1

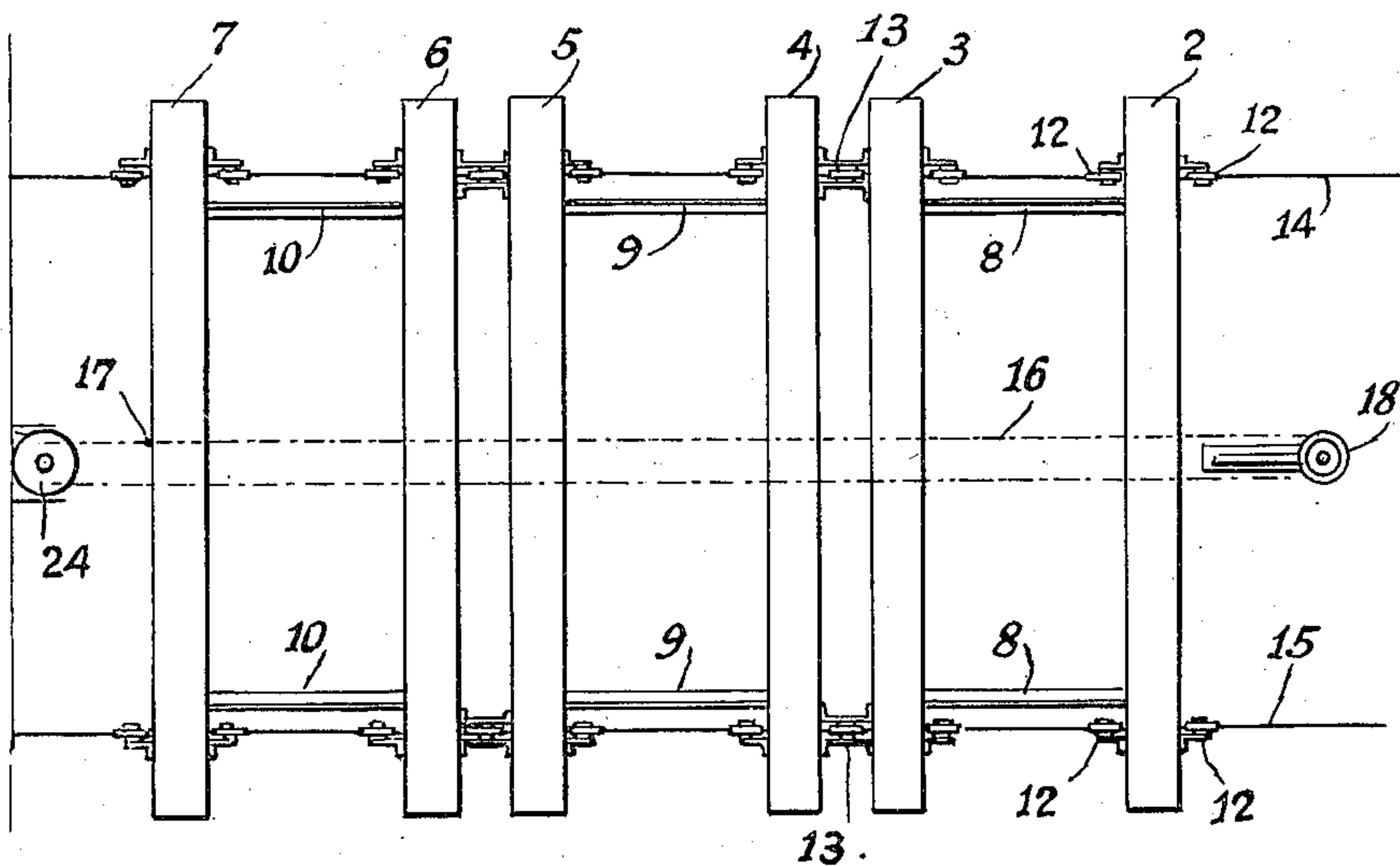


Fig. 1.

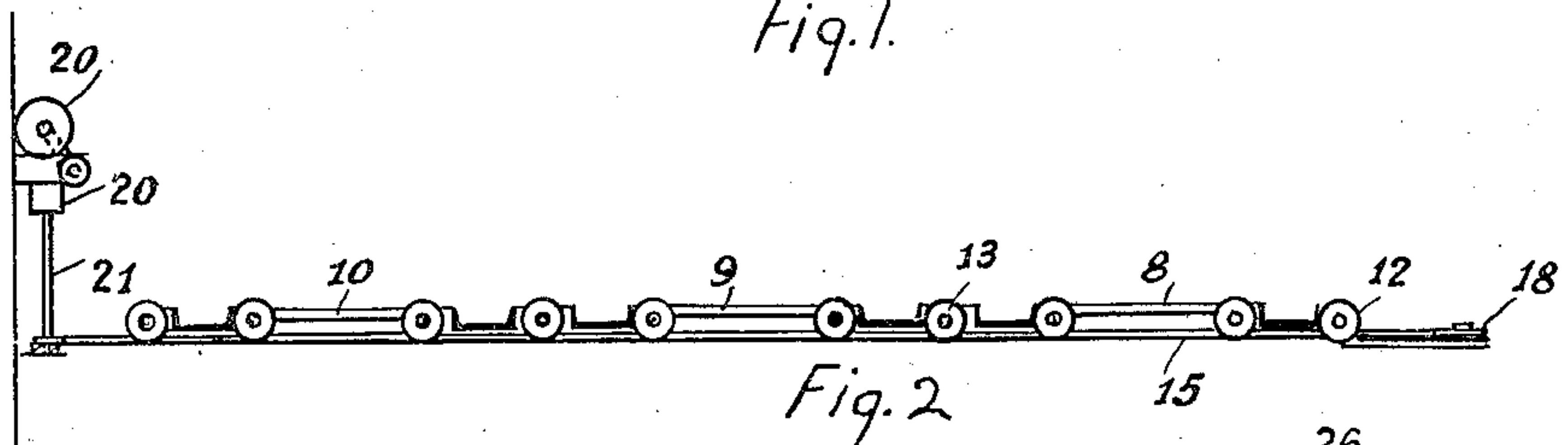


Fig. 2.

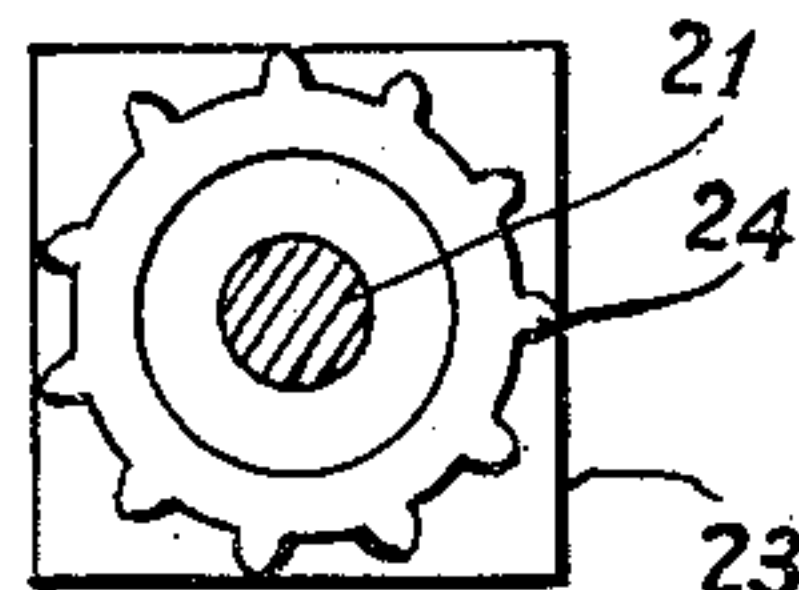


Fig. 5.

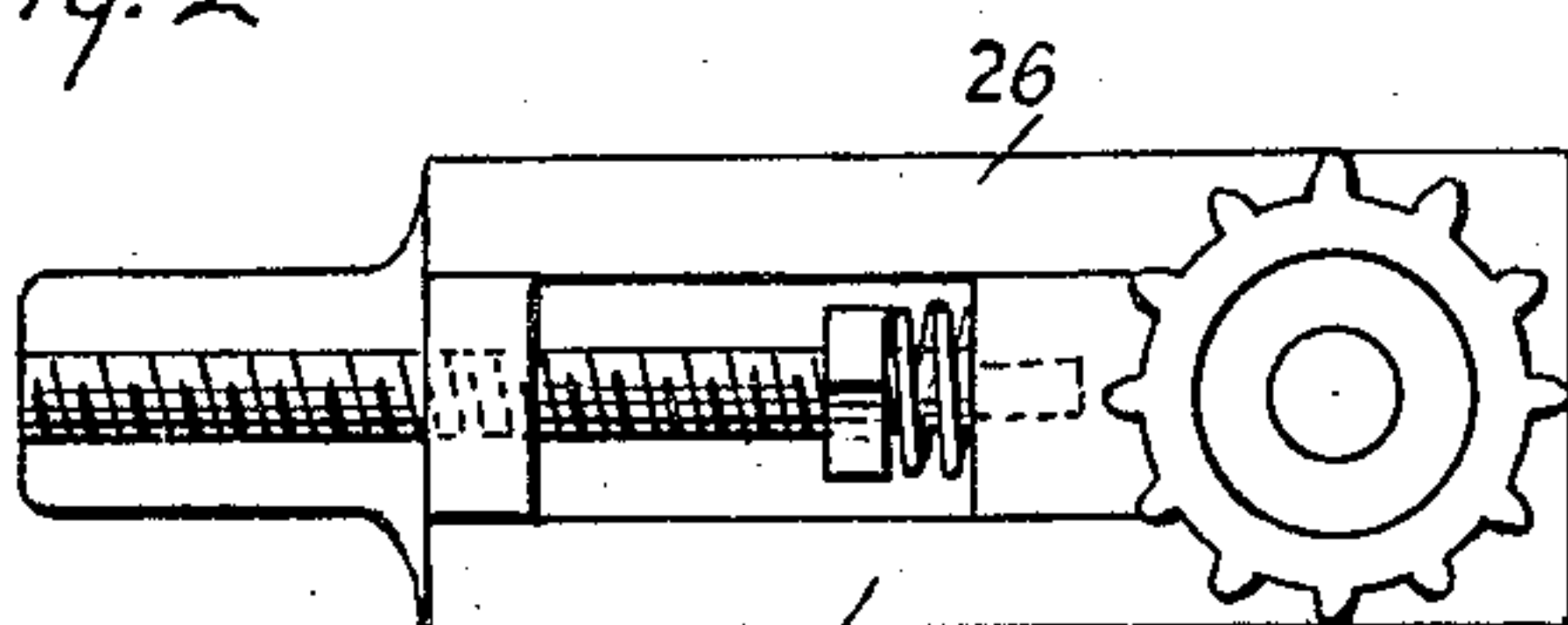


Fig. 6.

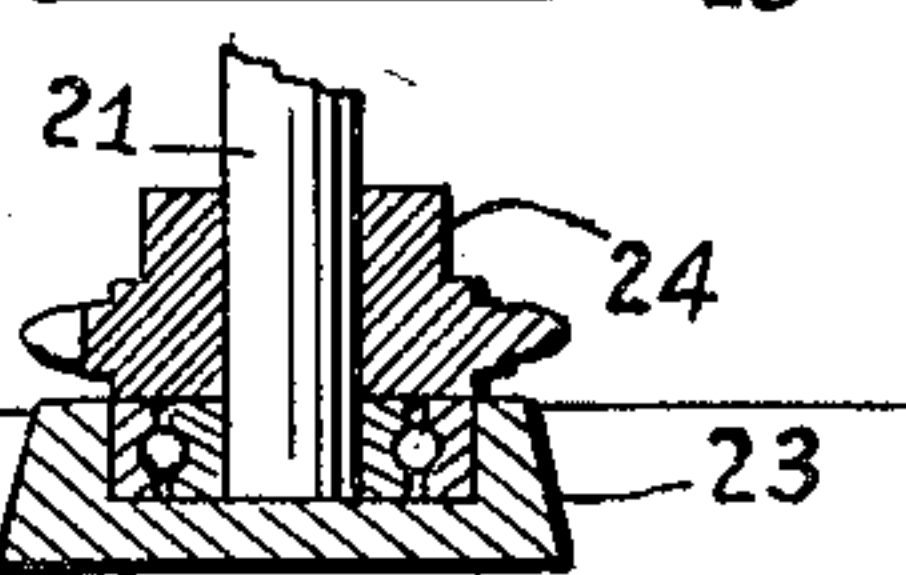


Fig. 3.

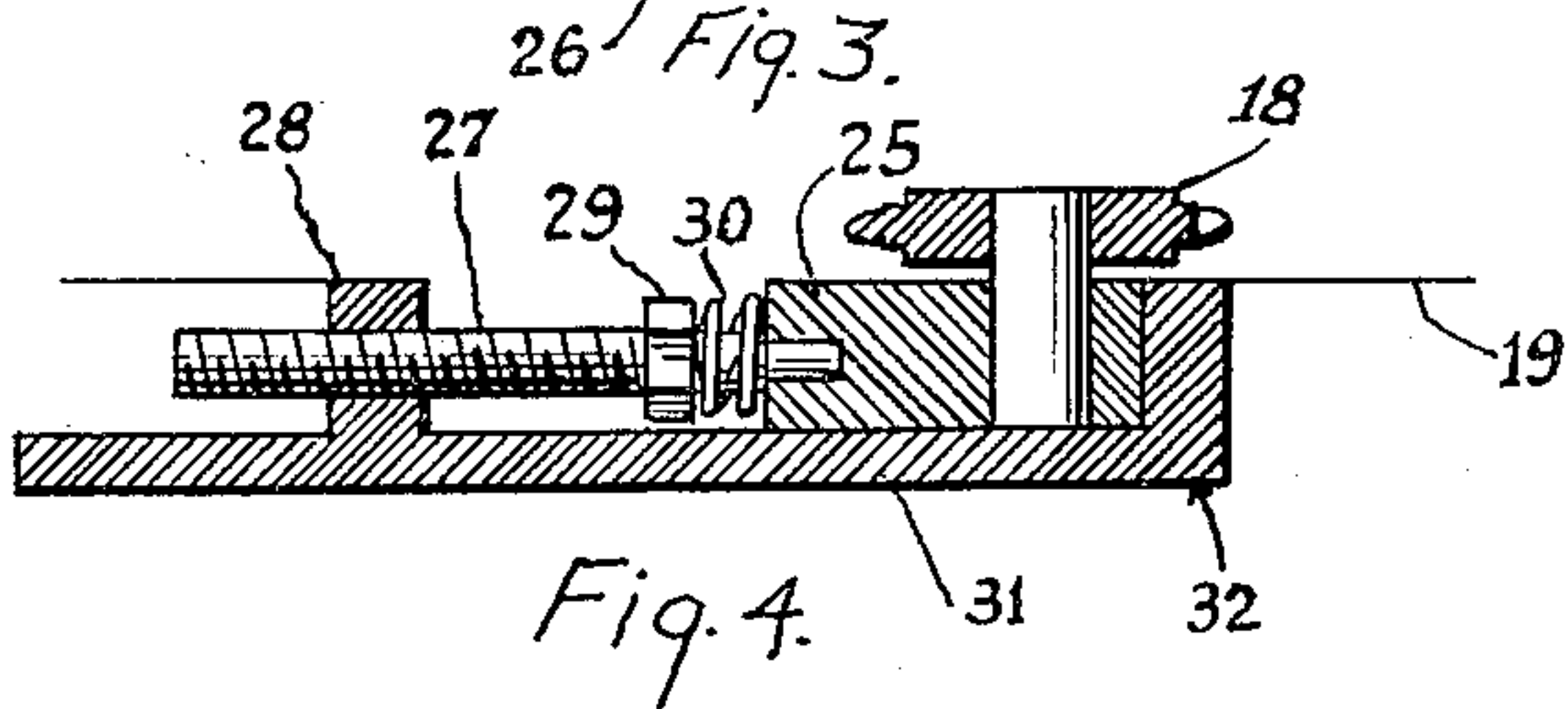


Fig. 4.

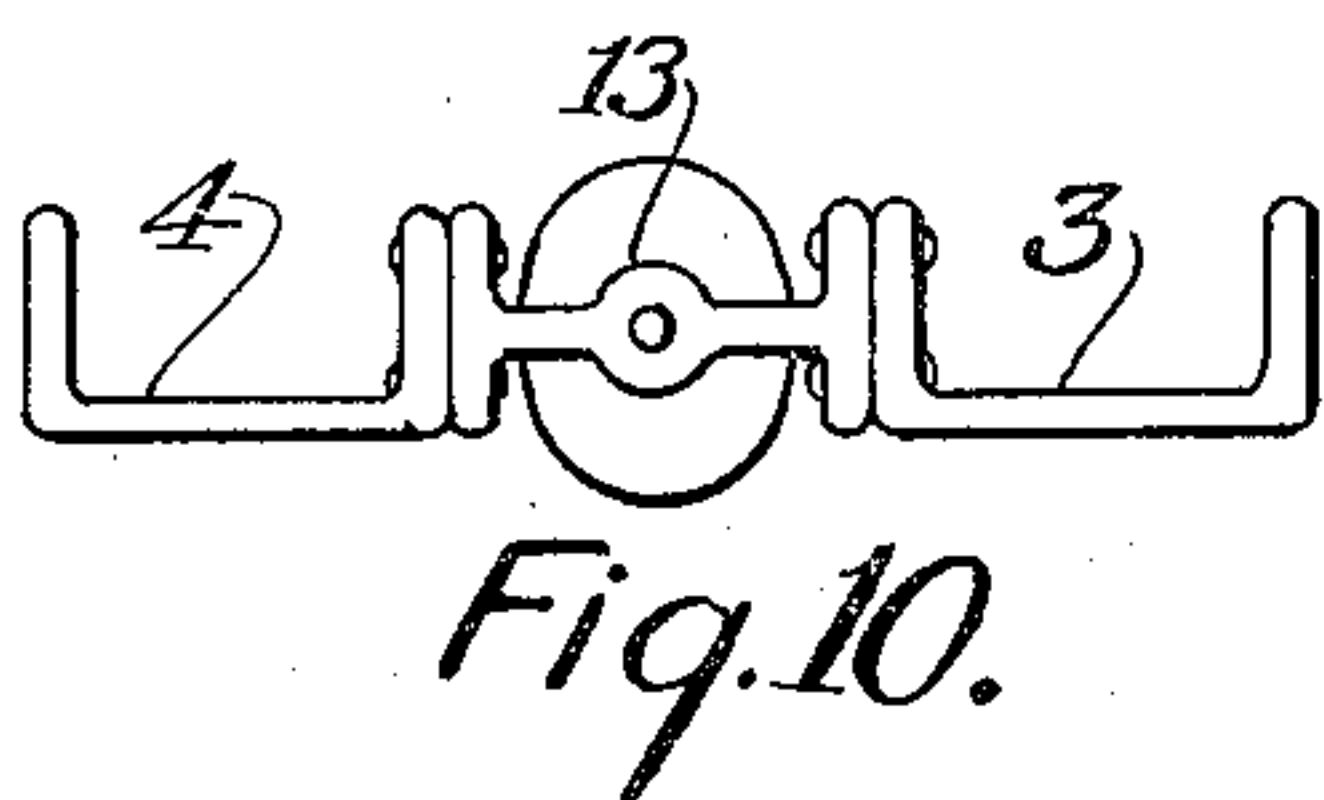


Fig. 10.

INVENTOR.

Helman K. Wheeler

BY

Ezekiel Wolf

ATTORNEY.

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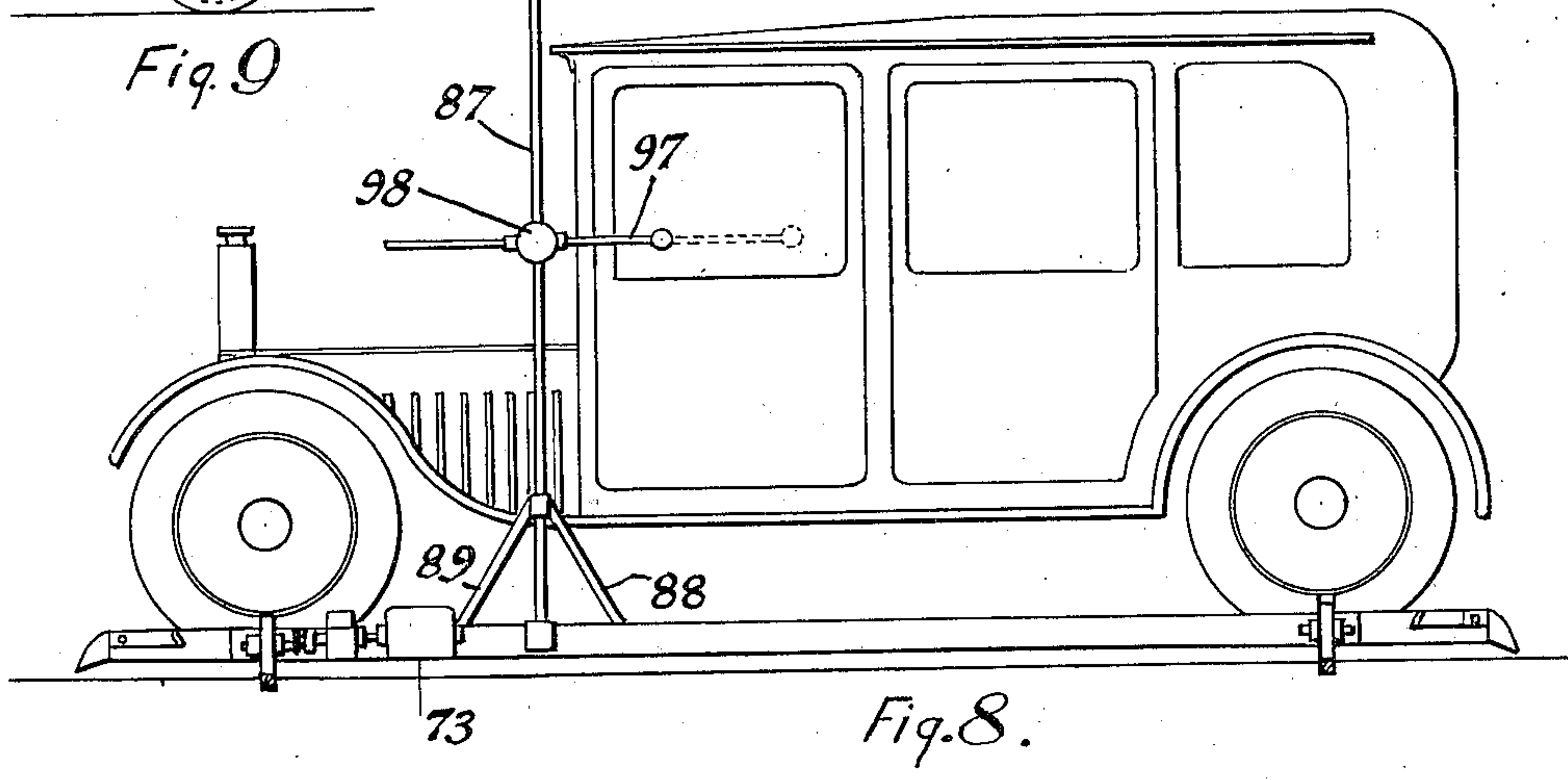
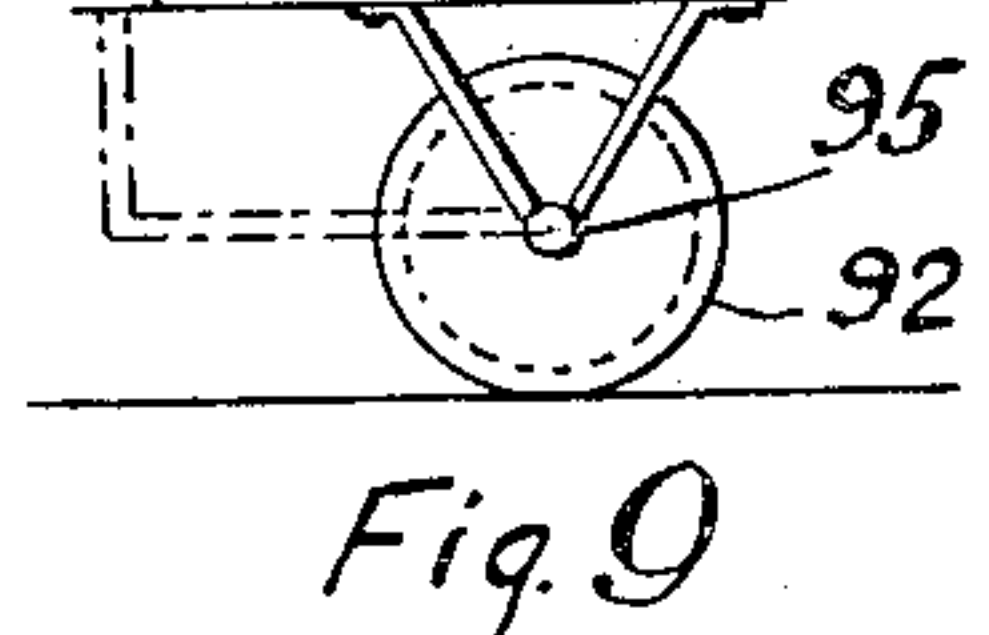
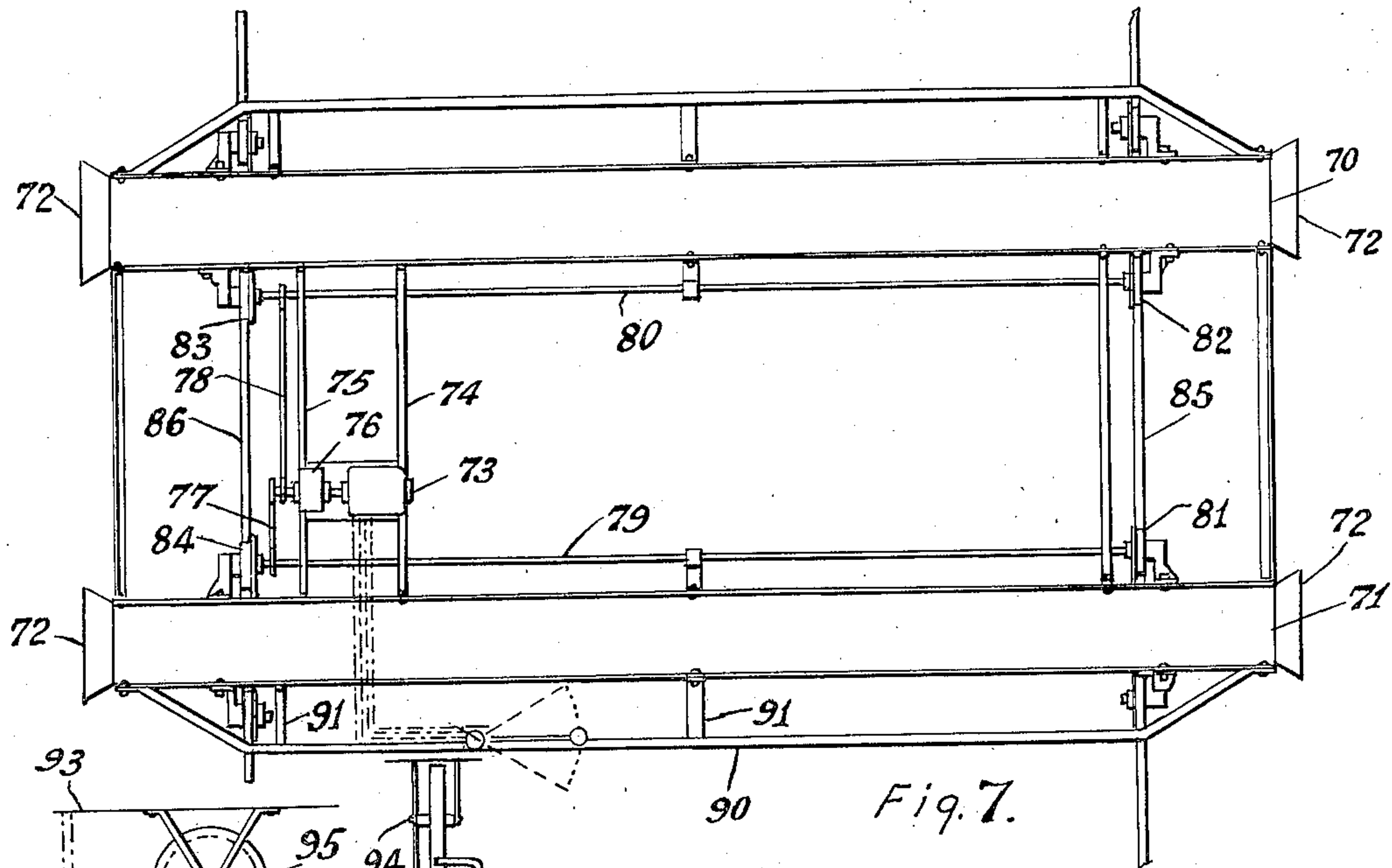
H. K. WHEELER

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2 Sheets-Sheet 2



INVENTOR.

H. K. Wheeler

BY

Ezekiel Wolf

ATTORNEY.

UNITED STATES PATENT OFFICE

2,022,167

MEANS OF STORING MOTOR VEHICLES

Holman K. Wheeler, Newton Center, Mass., assignor to Mechanical Transfer Car Corporation, St. Johnsbury, Vt., a corporation of Vermont

Application October 31, 1930, Serial No. 492,524

4 Claims. (Cl. 104—50)

The present invention relates to the storing of vehicles in buildings and is an improvement in the system using transfer cars as described in my copending patent applications Serial No. 322,024, filed November 26, 1928, patented February 21, 1933, Patent No. 1,898,107; Serial No. 351,853 filed April 2, 1929, patented November 15, 1932, Patent No. 1,887,667; Serial No. 492,525 filed October 31, 1930, patented December 12, 1933 Patent No. 1,939,637.

The present invention more particularly relates to the combination of single transfer cars in groups and the operation of these cars in units by a single power source.

In the present invention the units are so combined and supported that any number of individual cars may be used with equal ease in manipulation and operation.

The invention will be more fully described in connection with the following descriptions to be considered in connection with the drawings, in which:

Figure 1 shows a plan view of the motor driven mechanical transfer car.

Figure 2 shows a side elevation of the view shown in Figure 1.

Figure 3 shows a detail of the driving mechanism.

Figure 4 shows a sectional view of the detail shown in Figure 3.

Figure 5 shows a detail of the apparatus shown in Figures 1 and 2.

Figure 6 shows a top view of the detail shown in Figure 5.

Figure 7 shows a modification of the invention.

Figure 8 shows a side view of the modification shown in Figure 7.

Figure 9 shows a detail of the modification.

Figure 10 shows in detail the method of joining adjacent channels to the single truck.

In Figure 1 the multiple transfer car 1 is constructed in a manner similar to the car shown in my application No. 492,525 filed Oct. 31, 1930. It comprises a number of parallel channel elements 2, 3, 4, 5, 6 and 7, joined together by cross rods or cross channels 8, 9, and 10 respectively. Each channel is supported by trucks 12, 12, respectively, which are preferably bolted to the sides of the channel. It should be noted that the channels 3 and 4 have a single truck 13, 13 which is bolted on one side to the channel 3 and on the other side to the channel 4. Any size multiple car may be obtained by joining together as many single element cars as desired by means of the trucks 13 as indicated in Figure 10. The cars

are disposed to run laterally on tracks 14 and 15 being driven by endless chain 16 which is attached by the clamp 17 to one side of the channel 7. The endless chain 16 passes about a sprocket 18 which is mounted in a bearing set in the floor 19 as shown more clearly in Figure 4. The other end of the chain passes about a sprocket wheel 24 which is driven from a wall motor 20 as shown in Figure 2. The wall motor 20 drives the shaft 21 through a reduction gear 22. As shown in Figures 5 and 6 the shaft 21 sets at its lower end in a bearing 23 fixed in the floor 19. The sprocket 24 is pinned to the shaft 21 and is rotated by it. In order to adjust for the slack on the chain 16, the sprocket 18 is mounted in an adjustable bearing element 25 which is adapted to move between guides 26. The bearing 25 is positioned between the guides 26 by means of the screw 27 working in the cross element 28 joining the guides 26. By turning the screw 27 by means of the nut 29, the bearing 25 is set in the desired position. A helical spring 30 is provided between the nut 29 and the bearing 25 to allow the bearing to yieldingly hold when an undue strain is applied. As indicated in Figure 4 the screw 27 has a stud 31 projecting into the bearing 25. It should also be noted that the guides 26 and the cross element 28 are all integral with the base 32.

In the modification shown in Figures 7 and 8, the motor is mounted on the transfer car itself, the car in this case consisting of channels 70 and 71 having end flaps 72. The car is similar to the car described in Figure 1 with the exception that it is provided with a motor 73 mounted on cross rods 74 and 75 extending between the channels 70 and 71. The motor 73 drives through the reduction gear 76 and the chains 77 and 78, the shafts 79 and 80 respectively. The wheels 81, 82, 83 and 84 are driven by the shafts 79 and 80 and drive the car laterally along the tracks 85 and 86. At the side of the support 90, attached by the brackets 91 to the channel 71, there is mounted a vertical support 87 supported diagonally by the brackets 88 and 89 to the guard 90. The conductor to the motor 73 passes through the vertical support 87 to the top end from which it goes to the spring drum 92 shown in Figure 9 mounted from the ceiling 93 over one end of the track. The conductor, if the stretch is long, may rest upon supporting brackets 94 at suitable intervals from the ceiling. The spring drum has preferably a spring whose tension may be regulated and which is geared to the shaft 95 of the drum. The support 87 has mounted thereon a forward and reversing switch 98 which has a long handle

97 which may be operated from the driver's seat in the car. In the operation of the system the driver drives his car on the transfer car in which case he is in such a position that the switch 97 is adjacent the driver's window of the car. The operator then throws the switch handle 97 either to the right or the left causing the power car to move in the desired direction.

Having now described my invention, I claim:—
10 1. A device for transferring motor or other vehicles laterally to their usual motion, comprising a plurality of pairs of channels on which said vehicles rest, said channels of adjacent pairs being positioned parallel in adjacent pairs, a plurality of common supporting means for channels,
15 each said means including a wheel mounted therein positioned between said channels and perpendicular thereto, and means mounted on the exterior side of said channels, said means
20 also having wheels mounted therein and positioned perpendicular to said channels.

2. A device for transferring motor or other vehicles laterally to their usual motion compris-

ing a plurality of pairs of channels, a plurality of trucks having individual wheels attached at both sides of said channels, the adjacent channels of adjacent pairs having common trucks.

3. A device for transferring motor or other vehicles laterally to their usual motion comprising a plurality of channels, means connecting the channels in pairs, a plurality of trucks, means for fixing said trucks at opposite sides to channels of adjacent pairs, and further means for supporting said channels at the inside thereof, said means and trucks being provided with wheels positioned lateral to said channels.

4. A device for transferring motor or other vehicles laterally to their usual motion comprising a plurality of channels, means connecting said channels together in separate pairs, means including wheels positioned laterally of said channels attached at the inner sides thereof and means including wheels attachable at the exterior sides thereof, said means joining adjacent pairs of channels.

HOLMAN K. WHEELER.