Sept. 6, 1927. 1,641,848

S. P. GRIFFIN

HOUSE MOVING TRUCK

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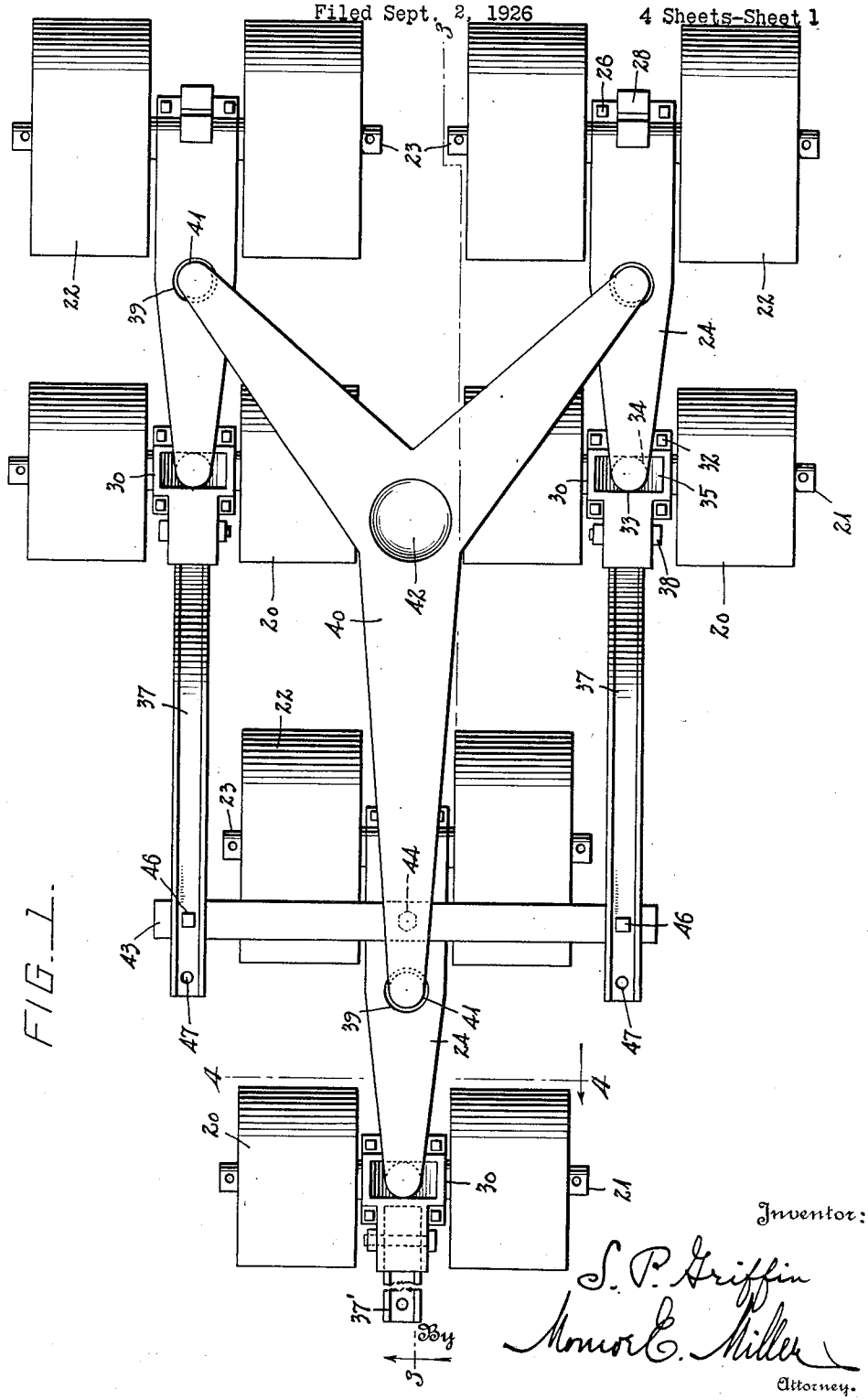



FIG. 1.

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HOUSE MOVING TRUCK

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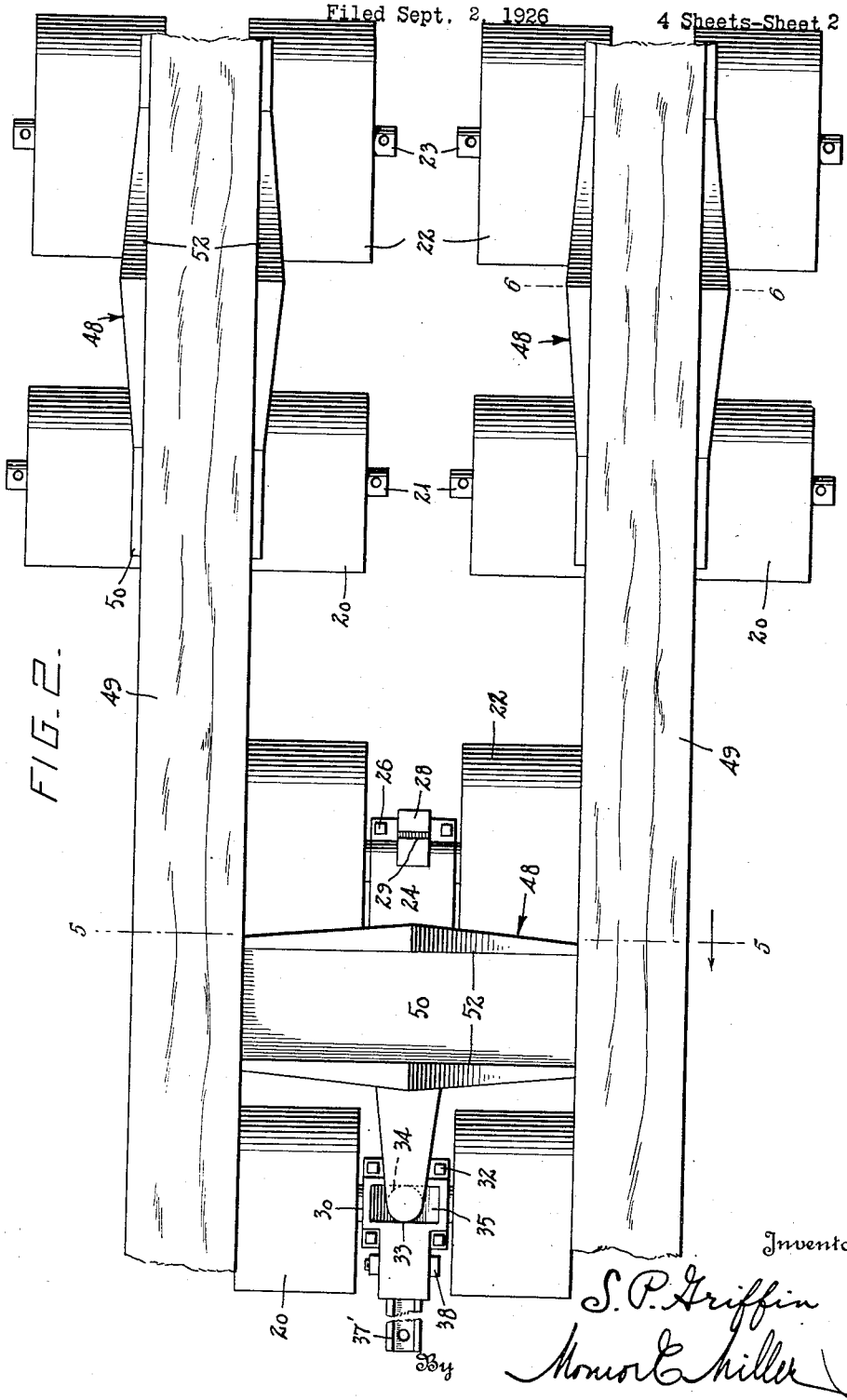



FIG. 2.

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HOUSE MOVING TRUCK

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FIG. 3.

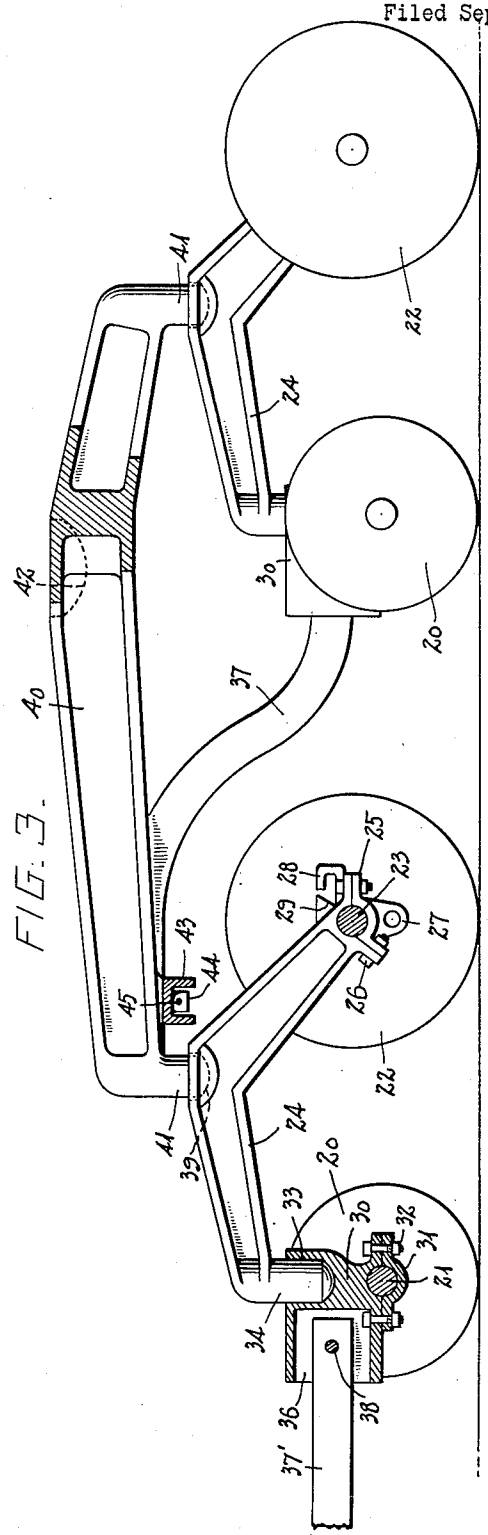



FIG. 9.

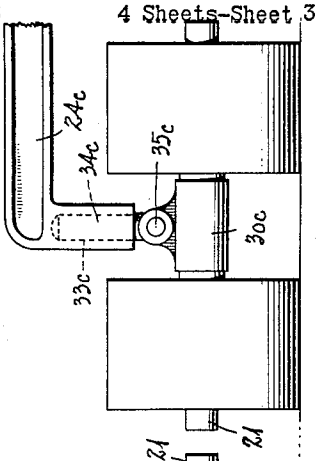



FIG. 8.

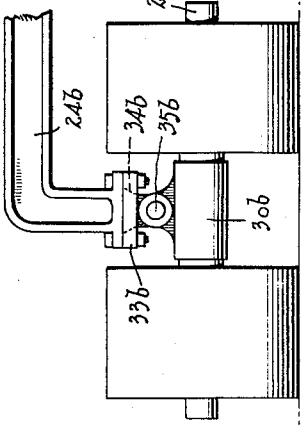
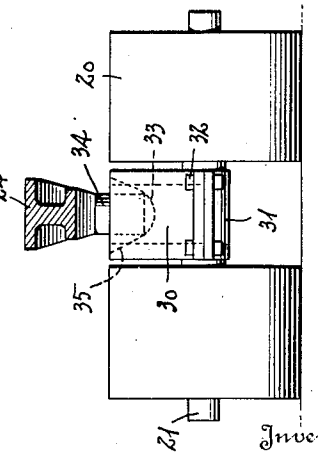



FIG. 4.




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HOUSE MOVING TRUCK

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FIG 5

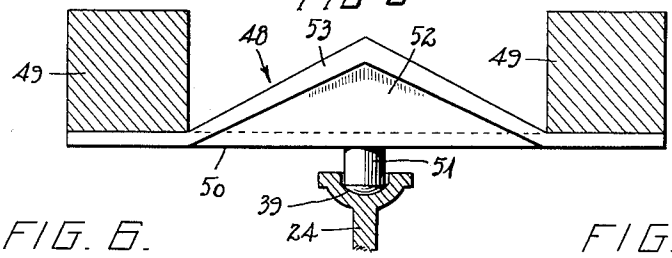



FIG. 6.

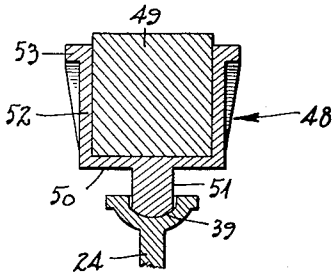



FIG. 7.

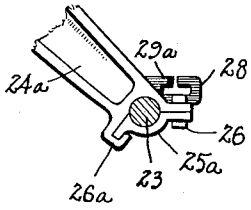



FIG. 10.

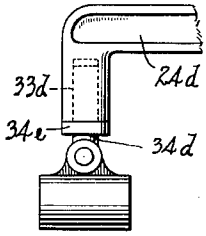



FIG. 11.

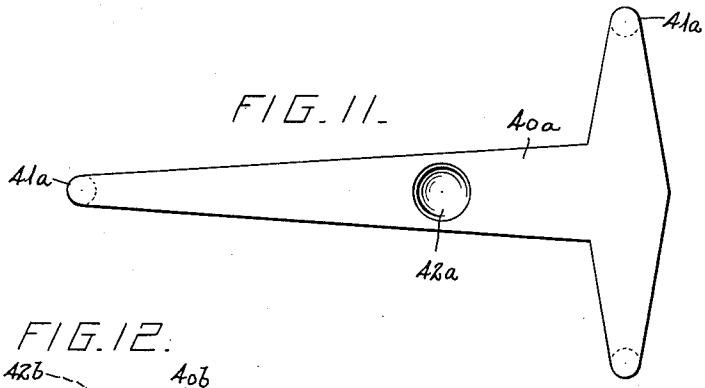



FIG. 12.

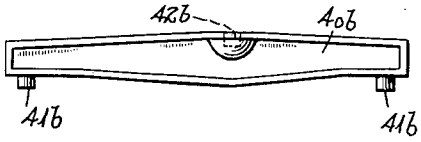



FIG. 13.

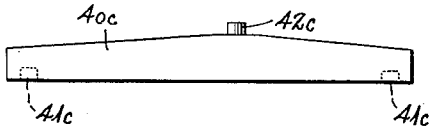
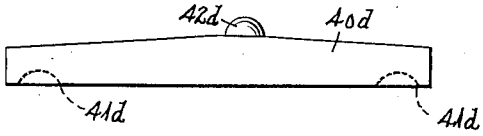



FIG. 14.




Inventor:

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Patented Sept. 6, 1927. 1,641,848

# UNITED STATES PATENT OFFICE.

SAMUEL P. GRIFFIN, OF SULPHUR SPRINGS, FLORIDA.

## HOUSE-MOVING TRUCK.

Application filed September 2, 1926. Serial No. 133,238.

The present invention relates to trucks such as are used for moving houses, buildings and other large objects, and it is an object of the invention to provide house moving trucks having novel and improved features of construction to enhance the utility and efficiency thereof.

Another object is the provision of novel means for assembling a front and two rear trucks and for supporting the load therefrom.

The invention has for a further object the improvement of the construction generally in its details and arrangement of parts, so as to increase the efficiency and practicability of the device.

With the foregoing and other objects in view, which will be apparent as the description proceeds, the invention resides in the construction and arrangement of parts, as hereinafter described and claimed, it being understood that changes can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of a group or set of house moving trucks with a three point bearing member thereon for assembling the trucks and supporting the load.

Fig. 2 is a plan view illustrating the timber receiving and supporting members on the trucks.

Fig. 3 is a longitudinal section on the line 3—3 of Fig. 1.

Fig. 4 is a cross section on the line 4—4 of Fig. 1.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 is a section on the line 6—6 of Fig. 2.

Fig. 7 is a detail view illustrating a modification in the rear axle clamp of the truck beam.

Figs. 8 and 9 are elevations illustrating modifications in the connections between the front axles and beams of the trucks, with the axles and beams turned into substantially the same plane.

Fig. 10 is a detail view illustrating a further modification in the front axle joint of the truck beam.

Fig. 11 is a plan view of a modified form of three point bearing member to be used in lieu of the corresponding member shown in Fig. 1.

Figs. 12, 13 and 14 illustrate modified forms of bearing members that may be used.

As shown in Figs. 1 and 2, there is employed a set or group of trucks, including one front truck and two rear trucks disposed side by side, and such trucks are of the same construction so that they may be used interchangeably. Each truck has two pairs of wheels, including the front wheels 20 mounted on an axle 21, and rear wheels 22, preferably of larger diameter, mounted on the axle 23. The wheels may be of wood, metal, or other suitable material.

Each truck has a beam 24 disposed between the wheels of the two pairs, and the beam 24 has a split clamp at its rear end, including a removable cap member 25 secured in place by bolts 26 or other securing elements, for tightly embracing the axle 23 between the wheels 22. The member 25 has a depending apertured lug 27 for the connection of a chain, cable, or the like, for pulling a truck from place to place or for connecting the trucks in a train so as to trail one in rear of the other. The rear end portion of the beam 24 is provided above the member 25 with a hook 28 for the engagement of a draft tongue, pole, rod or the like, and in front of the hook 28 is an inclined abutment 29 which will prevent the tongue or pole jumping upwardly when moved out of the hook 28, thereby preventing accidental separation of the parts.

A swivel connection is used between the front axle 21 and front end of the beam 24 of each truck. Thus, a casting or member 30 is provided with a split clamp, including a removable cap member 31 fastened in place by the bolts 32 or other securing elements, to tightly embrace the axle 21 between the wheels 20. The member 30 has an upper recess 33 receiving a depending pivot stud 34 with which the forward end of the beam 24 is formed, and the bottom of the recess 33 and lower end of the stud 34 are rounded. The front and rear walls of the recess 33 bear against the cylindrical surface of the stud 34, but the side walls of the recess 33 diverge upwardly, as at 35, thereby permitting the axle 24 and member 30 to oscillate

transversely relatively to one another, such as when the wheels 20 and 22 pass over uneven surfaces. The member 30 has a forwardly opening recess 36, and said recesses of the front and rear trucks receive the rear ends of the respective draft bars 37' and 37, which are pivoted within said recesses on transverse bolts or pins 38 extending through the members 30 within said recesses 36.

The beam 24 of each truck is arched to permit the front wheels 20 to move under said beam when turning the axle 21 and member 30 around the vertical axis of the pivot stud 34. The beam 24 is provided with an upper recess 39 intermediate the ends thereof for the pivotal engagement of the load supporting member.

As shown in Figs. 1 and 3, the load sustaining member 40 is of metal, and is Y-shape, with its limbs preferably of I section. The member 40 is disposed with its fork facing rearwardly, and said member is formed at its extremities with depending pivot studs 41 whose lower ends are rounded so as to fit in the concaved bottoms of the recesses 39 of the truck beams 24, thus permitting a universal movement of the beams relatively to the member 40. The cylindrical walls of the recesses 39 are also spaced slightly from the cylindrical surfaces of the studs 41 so as to permit slight movements of the studs 41 in the recesses 39. It is thus possible for the three trucks to oscillate in various directions relatively to the load sustaining member 40, and said member has a three point bearing so as to distribute the load from said member proportionately between the three trucks. The member 40 is provided at an intermediate point with a recess 42 to receive a member on which the building or load rests, in order that the load will be transmitted to the three trucks.

In order to cause the rear trucks to trail in rear of the front truck, a transverse bar 43 extends under the member 40 near the front end thereof, and is pivoted on a depending pivot stud 44 with which the member 40 is provided, and a suitable retaining element 45 engages said stud for holding the bar 43 thereon. The forward terminals of the draft bars 37 of the rear trucks are pivoted to the terminals of the bar 43 by means of bolts 46 or other pivot elements, and as shown, the forward portions of the bars 37 are offset upwardly and extend over the bar 43 thereby permitting the front truck to be turned without interference. The draft bars 27 are thus trailed from the evener bar 43 to guide the rear trucks, and the bars 43 and 37 are free to oscillate so that the trucks may pass over uneven surfaces without any of the parts binding. The draft bars 37 have holes 47 in their forward terminals for the connection of chains, cables or other elements used for pulling the trucks, or for connecting the trucks one behind the other when used in that arrangement.

Figs. 2, 5 and 6 illustrate the use of timber supporting members 48 on the trucks in order to accommodate and support two parallel longitudinal timbers 49. One of said members 48 is used on each truck, and said members are duplicates, with the members of the rear trucks arranged longitudinally and the member of the front truck disposed transversely. Said members are of such form that they may accommodate the timbers 49 as shown in Fig. 2. Each member 48 comprises an elongated horizontal plate 50 provided between its ends with a depending pivot stud 51 to seat in the recess 39 of the corresponding truck. The studs 51 of the members 48 correspond with the studs 41 of the member 40, for mounting the members 48 for oscillatory motion on the truck beams. The plate 50 of each member 48 has upstanding flanges 52 at its opposite edges and between the ends of the plate, forming a channel in which one timber 49 is adapted to fit snugly. The edges of the flanges 52 are thickened or reinforced, as at 53, and the end portions of the plates 50 project beyond said flanges to receive the beams 49 thereon, as seen in Fig. 5. Thus, by turning the members 48 of the rear trucks longitudinally the timbers 49 will fit on the plates 50 between the flanges 52, and by turning the member 48 of the front truck to a transverse position the timbers 49 may extend across and rest on the terminal portions of the plate 50 of the front member 48. The members 48 may thus be used interchangeably.

Fig. 7 illustrates a modification in the rear end portion of the truck beam $24^a$, which has a hook $26^a$ receiving one end of the cap member $25^a$, and the other end of said member is held by a bolt 26. There is also shown an undercut portion $29^a$ opposite to the hook 28 to prevent the member which engages the hook from jumping out when said member is slackened.

Fig. 8 illustrates a modification in the connection between the truck beam $24^b$ and the front axle 21. A member $34^b$ is swivelled within a plate or member $33^b$ secured to the forward depending end of the beam $24^b$, to permit rotation about a vertical axis, and a sleeve $30^b$ embracing the axle 21 is pivoted, as at $35^b$, to the member $34^b$ to permit oscillation about a horizontal axis at right angles with the axis of the axle 21.

Fig. 9 illustrates an upstanding spindle $34^c$ pivoted, as at $35^c$, to the sleeve $30^c$ which embraces the front axle 21 of the truck, and the forward depending terminal of the beam $24^c$ has a socket $33^c$ receiving said spindle. The upper ends of the spindle and socket are rounded to provide for the free rotation

of the spindle in the socket. Fig. 10 shows a similar arrangement excepting that the upper ends of the socket $33^d$ and spindle $34^d$ are spaced apart, and the spindle has a collar or shoulder $34^e$ on which the forward depending end of the beam $24^d$ seats.

Fig. 11 illustrates a modified form of three point bearing member to be used in lieu of the member 40. Thus, the member $40^a$ shown in Fig. 11 is of T-shape, with the studs $41^a$ at the extremities thereof, and the recess or portion $42^a$ at an intermediate point.

Figs. 12, 13 and 14 illustrate modifications in the members to be mounted on the beams of the three trucks. Fig. 12 shows the member $40^b$ having depending studs $41^b$ at its extremities and a corresponding recess $42^b$ at the top intermediate the extremities. Fig. 13 illustrates the member $40^c$ as having recesses $41^c$ at its extremities to engage studs similar to the studs $41^b$ that project upwardly from the truck beams, with the member $40^b$ having an upstanding stud $42^c$ intermediate its extremities. Fig. 14 shows the member $40^d$ with concaved recesses $41^d$ at its extremities and with a convex stud $42^d$ between its extremities. The members $40^b$, $40^c$ and $40^d$ may be either Y-shaped or T-shaped in plan according to the members 40 and $40^a$ shown in Figs. 1 and 11, respectively.

The present apparatus is an improvement over the house moving trucks disclosed in my Patent No. 1,544,448 granted June 30, 1925.

Having thus described the invention, what is claimed as new is:—

1. A house moving apparatus comprising a front truck, two rear trucks disposed side by side, each truck having front and rear wheels and a longitudinal beam connecting them, and a load sustaining member having a front terminal and two rear terminals, the terminals of said member and all three beams having contacting portions fitting together for turning and oscillatory motions and providing a three point bearing for said member.

2. A house moving apparatus comprising a front truck; two rear trucks disposed side by side; each truck having front and rear axles, wheels on said axles, a longitudinal beam connected to the rear axle and having a flexible joint with the front axle, and a draft bar extending forwardly from the front axle; a load sustaining member having a direct point of contact with each longitudinal beam of said trucks; and means connecting the draft bars of the rear trucks with said member.

3. A house moving apparatus comprising a front truck; two rear trucks disposed side by side; each truck having front and rear axles, wheels on said axles, a longitudinal beam connected to the rear axle and having a flexible joint with the front axle, and a draft bar extending forwardly from the front axle; a load sustaining member having a direct point of contact with each longitudinal beam of said trucks; and a transverse evener bar pivoted between its ends to said member and pivotally connected near its extremities with the draft bars of the rear trucks.

4. A house moving apparatus comprising a front truck; two rear trucks disposed side by side; each truck having front and rear axles, wheels on said axles, a longitudinal beam connected to the rear axle and having a flexible joint with the front axle, and a draft bar extending forwardly from the front axle; a load sustaining member having a front and two rear terminals; the terminals of said member and all three beams having contacting portions fitting together for turning and oscillatory motions; and means connecting the draft bars of the rear trucks with said member.

In testimony whereof I hereunto affix my signature.

SAMUEL P. GRIFFIN.