

Jan. 8, 1924.

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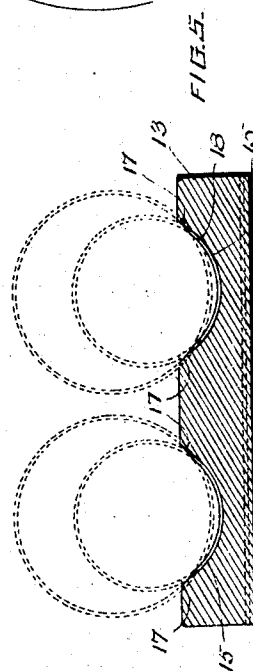
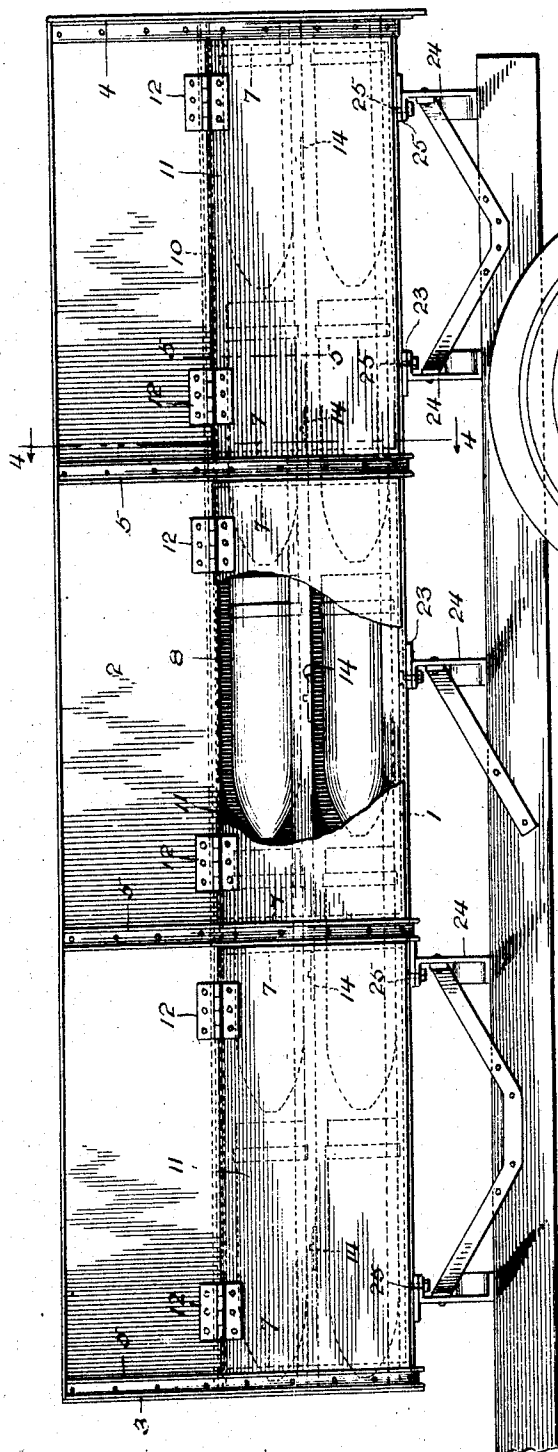
W. T. DOVE

TRUCK BODY

Filed June 10, 1919

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FIG. 1.



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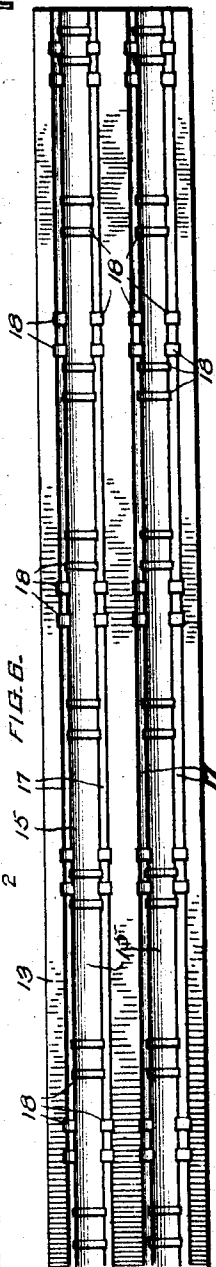
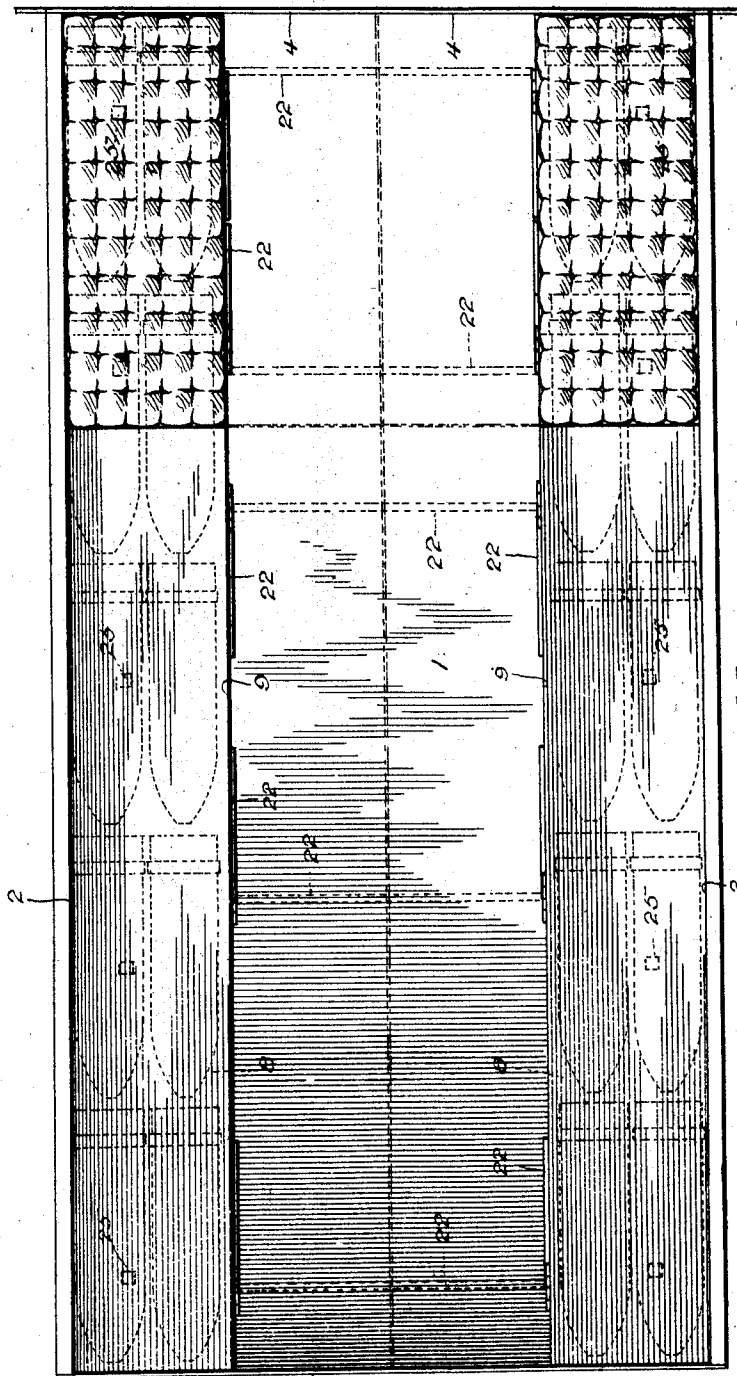
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FIG. 2.



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FIG. 3.

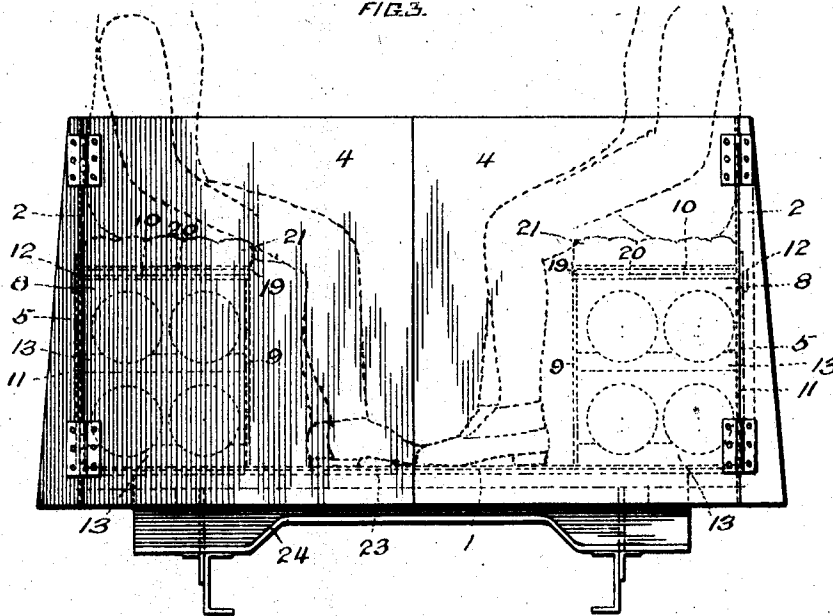
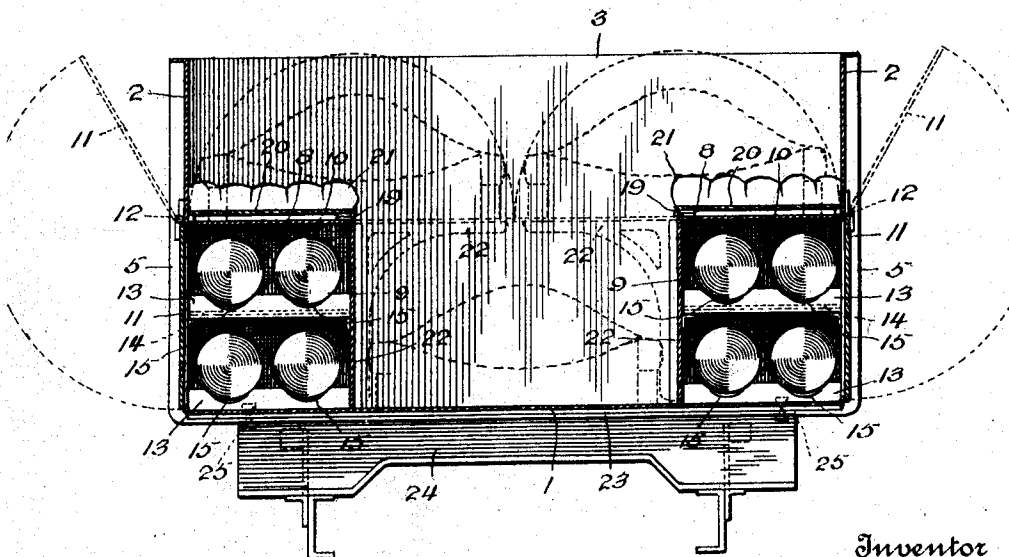


FIG. 4.



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UNITED STATES PATENT OFFICE.

WALTER T. DOVE, OF THE UNITED STATES ARMY, ASSIGNOR TO NEWTON D. BAKER,
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TRUCK BODY.

Application filed June 10, 1919. Serial No. 303,220.

(FILED UNDER THE ACT OF MARCH 3, 1883, 22 STAT. L., 625.)

To all whom it may concern:

Be it known that I, Captain WALTER T. DOVE, Ordnance, United States Army, a citizen of the United States, stationed at Washington, District of Columbia, have invented an Improvement in Truck Bodies, of which the following is a specification.

The invention described herein may be used by the Government, or any of its officers or employees in prosecution of work for the Government, or by any other person in the United States, without payment of any royalty thereon.

This invention relates to improvements in vehicles for army purposes and consists in an improved combination body, especially adapted for the transportation of ammunition, as an ambulance and also as a troop transporting medium or as a vehicle wherein all of the above uses may be combined.

An object is to provide a vehicle of such a construction as to permit convenient and expeditious loading and unloading and avoid second handling of the projectiles in either operation.

Another object is to provide means whereby ammunition may be loaded or unloaded without disturbing either the troops or wounded that have been previously placed on the vehicle, and whereby it will be unnecessary to in any way interfere with the ammunition when loading the troops or wounded.

A further object is to provide for not only the prompt loading and unloading but also for loading and carrying the ammunition without damage to same.

Another object is to provide for the comfortable transportation of troops and severely wounded and also provide a convenient place for an attendant for the wounded or those that are not severely wounded and can travel in a sitting position.

Similar reference numerals indicate corresponding parts in all the figures of the drawing in which:—

Fig. 1 is a side elevation partly broken away of the improved ammunition truck body with parts of the chassis shown;

Fig. 2 is a plan view of the improved truck body;

Fig. 3 is a rear elevation with parts in dotted lines;

Fig. 4 is a transverse section on line 4—4 of Fig. 1.

Fig. 5 is an enlarged detail section on line 5—5 of Fig. 1; and

Fig. 6 is a detail plan view of one of the ammunition carrying or supporting members.

It has been found good practice in modern warfare to establish what is known as an ammunition dump a sufficient distance in rear of the front line to be outside the danger zone. Ammunition is conveyed in large quantities to the ammunition dump on railroad cars and there stored. From said ammunition dump the ammunition is distributed in trucks to the different artillery firing positions as required, said firing positions being in many instances several miles distant.

The infantry firing lines are usually from one half to two miles in advance of the artillery positions, and the troops occupying said infantry firing lines are transferred to rest areas located in many instances four or five miles in rear, and fresh troops brought up to replace them approximately each week or ten days. Under some conditions the troops above referred to are transferred all or part of the distance to and from the firing lines in trucks.

First aid stations are located at the infantry firing lines and also at the artillery firing positions. From these stations the wounded are conveyed at times to field hospitals located preferably about four or five miles to the rear and later from said field hospitals to base hospitals. These moves are usually made in ambulances.

The present material, available for the transportation of ammunition from the dump to the firing lines with special reference to projectiles for the 4.7, the 6 in. or 155 m/m rifles and howitzers, is the common form of truck having a rectangular pressed steel body. Therefore under service conditions it is generally necessary for the details of men assigned to trucks handling projectiles to ride in the body on them, and consequently the projectiles are always dirty, rotating bands gritty and often otherwise damaged due to their contact with the floor of the body and other projectiles. Considerable time is consumed in loading and un-

loading as it is impossible for more than one man to be at the tail gate at one time and it is also necessary to clean the projectiles and repair any damage to the rotating bands before they are in condition for use, said unloading, cleaning and repairing being performed under the most trying conditions, and when no time should be wasted.

With the present equipment when the wounded are to be transferred to the rear, an ambulance which is a specially constructed vehicle, that is useful for no other purpose is sent forward empty on the special mission referred to. The ambulances not only waste an empty outgoing trip, but congest the traffic and increase the damage to the road.

The present invention is designed to counteract all the defects above referred to in the old practice and equipment and consists of an improved body that may be used on the chassis of either Nash Quad or F. W. D. trucks, without alteration to either the chassis or transoms.

The body has the same general outline as the old bodies, and is of the same simple type of structure but is approximately 12 to 14 inches wider and consists of the bottom, 1, side walls 2—2, front wall 3 and rear end gates 4—4.

The usual body stiffener channels 5 are provided and between said stiffeners, the side walls are cut away as shown leaving narrow strips or flanges 7 parallel with the stiffeners. Ammunition compartments 8 are arranged along both sides of the body its entire length and are formed by the upright plates 9 and horizontal plates 10 properly braced to provide a substantial structure, said compartments each having about one eighth the cross sectional area of the entire body.

The compartments are accessible from the outside through the openings in the side walls, and between each of the stiffeners, doors or closures 11 are hinged at 12 along their upper edges.

The compartments are fitted with doubly grooved ammunition carriers 13 preferably of wood, the lower of which is arranged on the floor of the compartment, the other carrier being mounted on brackets approximately six and one-half inches above the lower carrier.

The ammunition carrier 13 for convenience in replacement, may be divided into two or more lengths; and may be braced or reinforced by metal pieces 14; said carriers are also provided with grooves in their upper faces to receive the projectiles and prevent their rolling in a transverse direction. The lower or deepest portion 15 of the grooves is on an arc corresponding to the smallest caliber projectiles and a small portion of the upper part of the grooves as

shown at 17 conforms to the arc of the largest caliber projectiles; (see Fig. 5) in this way the several sizes of projectiles will be firmly seated to prevent displacement.

The grooves are deepened at appropriate positions as shown at 18, to receive the rotating bands of the different sizes of projectiles to prevent injury thereto and longitudinal displacement of the projectiles.

Special reference is directed to the fact that with the above described construction of carrier, provision is made for the reception of projectiles of not only a variety of lengths and calibers but for variation in position of the rotating bands on the projectiles; said condition is obtainable only by the special form of grooving referred to and is shown in detail in Figs. 5 and 6.

Hinged at 19 to the upper inner corner 9 of the compartments, are plates 20 adapted to swing over on top of the upper plate 10 of the compartment and when in said position a cushion 21 is placed thereon to provide a comfortable seat running the entire length of both sides of the truck body about 18 inches above the floor or at the standard height of a chair.

The hinged plates 20 are preferably divided into forward sections of about six feet in length and rear sections about three feet in length, each being separately hinged.

The width of plates 20 is preferably one fourth the width of the truck and when swung upon the hinges 19 from a position overlying or resting upon the plates 10 to the position shown in dotted lines, Fig. 4, they will bridge the spaces between the compartments and form with the top plates 10 a shelf spaced from the floor and adapted to support light freight or litters with wounded.

It will be noted that the hinged plates 20 are of such a length that when the forward portion is adjusted into the litter carrying or ambulance position, there is provided space sufficient to accommodate one litter carrying a wounded man on the floor of the truck between the ammunition compartments and two litters on top of said false bottom.

The remainder or rear portion of the truck may be arranged to accommodate such as slightly wounded or those that may travel in a sitting position, or may be loaded with empty boxes or other freight.

Any preferred form of support may be provided for the hinged plate 20 when swung to center, for instance brackets 22 adapted to be pivotally mounted on the inner face of the ammunition compartment, that may be swung out to support the plates, or folded back against the face of the compartment, when not in use.

If found necessary to stiffen the body owing to its additional width, reinforcing

plates 23 may be provided, that match with the transoms 24 and the parts securely assembled by bolts 25.

The weight capacity of the present standard truck as used for the transportation of ammunition is from 2 to 3 tons or from four to six thousand pounds, this capacity is usually reached when a layer of either the 4.7 or 6" projectiles cover the bottom of the truck. The weight of a 4.7" round is about 67 pounds so that 64 rounds of ammunition would constitute a full load for a truck under favorable transportation conditions. This number of 4.7" rounds could be stored in one layer on the bottom of the ordinary truck. With the 6" round only 40 could be loaded on the bottom of the truck which would give a load approximately equal in weight to that of 64 4.7" rounds.

From this it will be seen that there is no loss in carrying capacity in the present design of truck body since ample space is provided for the number of rounds set forth.

The detail of men for handling the load of projectiles if they carry at the firing position is for instance, two or three hundred yards, is as many men as can be carried in the truck on top of the projectiles amounting at times to ten or even more men, who must stand on top of the projectiles or sit on the edge of the truck.

Any one familiar with the subject realizes

the value of affording the maximum comfort to the troops, since it is a well known fact that the efficiency of the men is in direct proportion to their personal comfort, and it will therefore be obvious that the present improved truck provides for the transportation of the weight capacity of projectiles, and comfortable accommodations for the detail of men up to fourteen on its outward bound trip and also possesses means for immediate conversion into an ambulance with a capacity of three litters and at the same time having sufficient space for four persons to sit, on its return trip.

It will also be clear that the construction of body shown will permit the transportation of crated projectiles such as 3" or 75 m/m which may be conveniently placed in the compartments.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:—

An army truck, including seats, movable parts attached to the seats for converting the seats into litter carriers and ammunition carriers beneath the seats, said carriers provided with grooves, the sides of the grooves formed of curved surfaces of different radii whereby ammunition of different sizes may be retained in the grooves.

WALTER T. DOVE.