

R. TITSWORTH.

GANGWAY.

APPLICATION FILED DEC. 31, 1915.

1,224,045.

Patented Apr. 24, 1917.

3 SHEETS—SHEET 1.

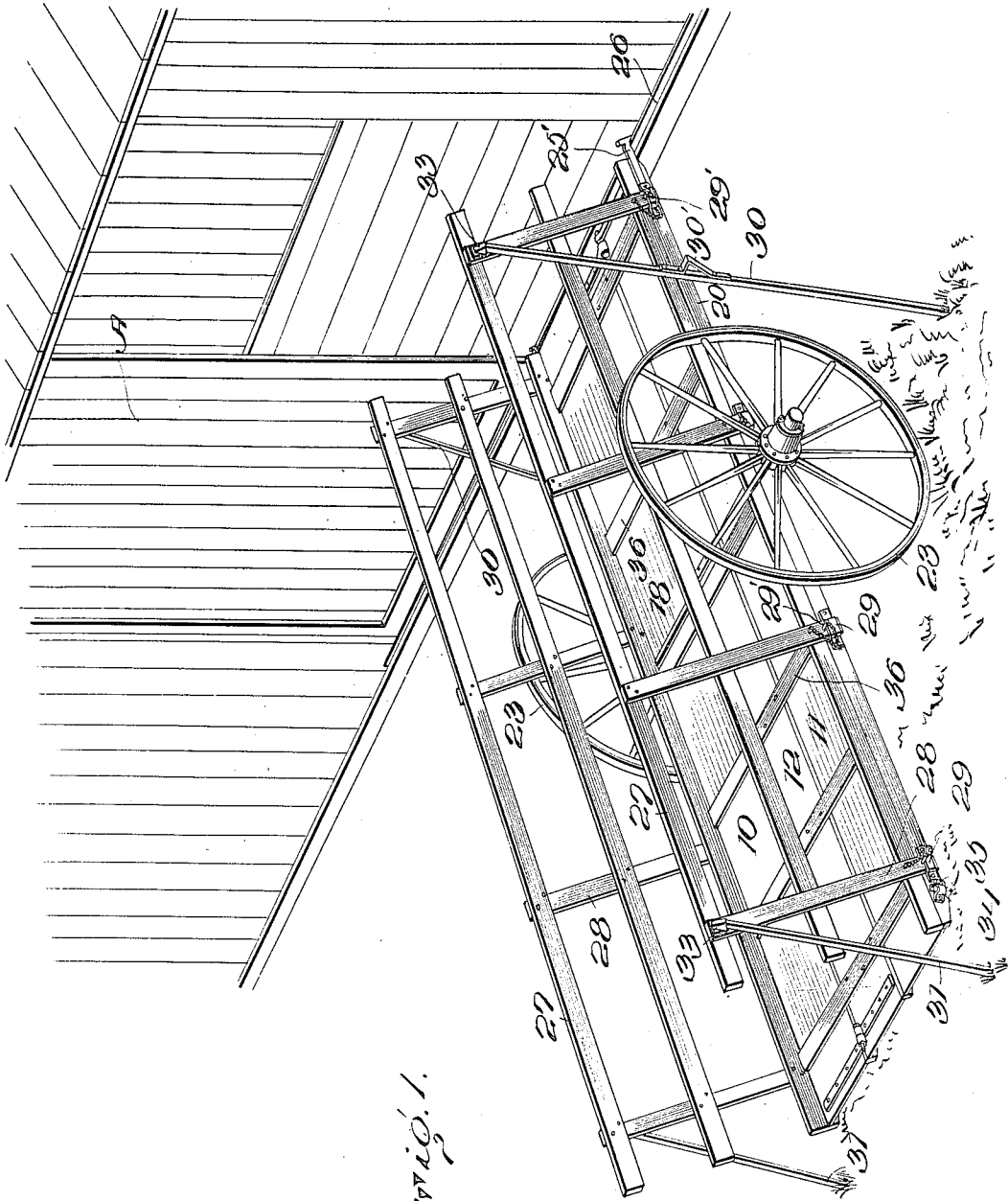


Fig. 1.

Inventor
R. T. Tisworth

By

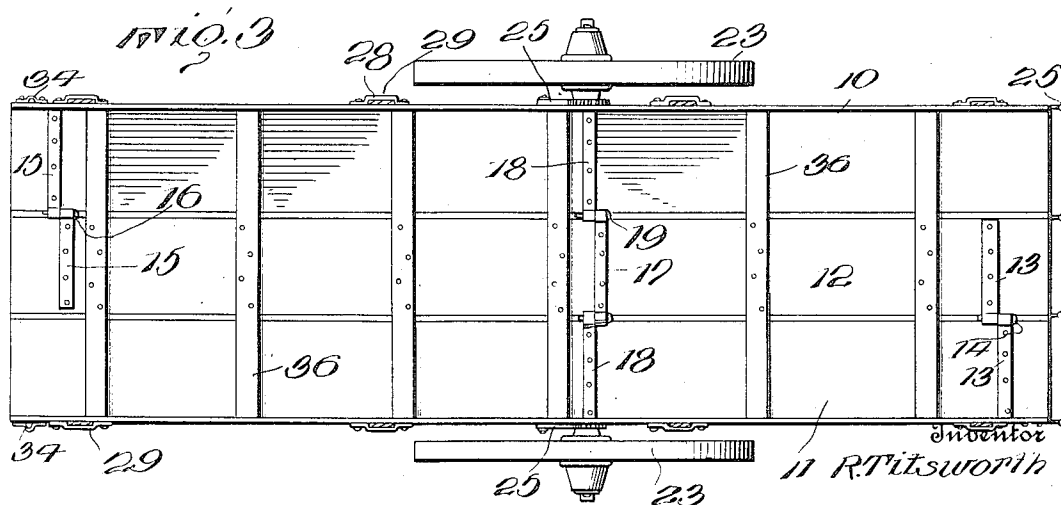
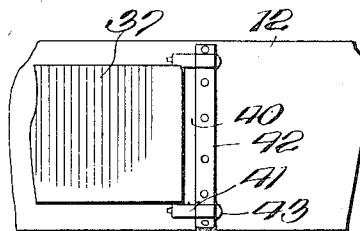
W. H. H. H. H.

Attorneys

APPLICATION FILED DEC. 31, 1915.

Patented Apr. 24, 1917.

3 SHEETS—SHEET 2.

 $\mathbb{B}_y$

John R. Sacey, Attorneys.

R. TITSWORTH.

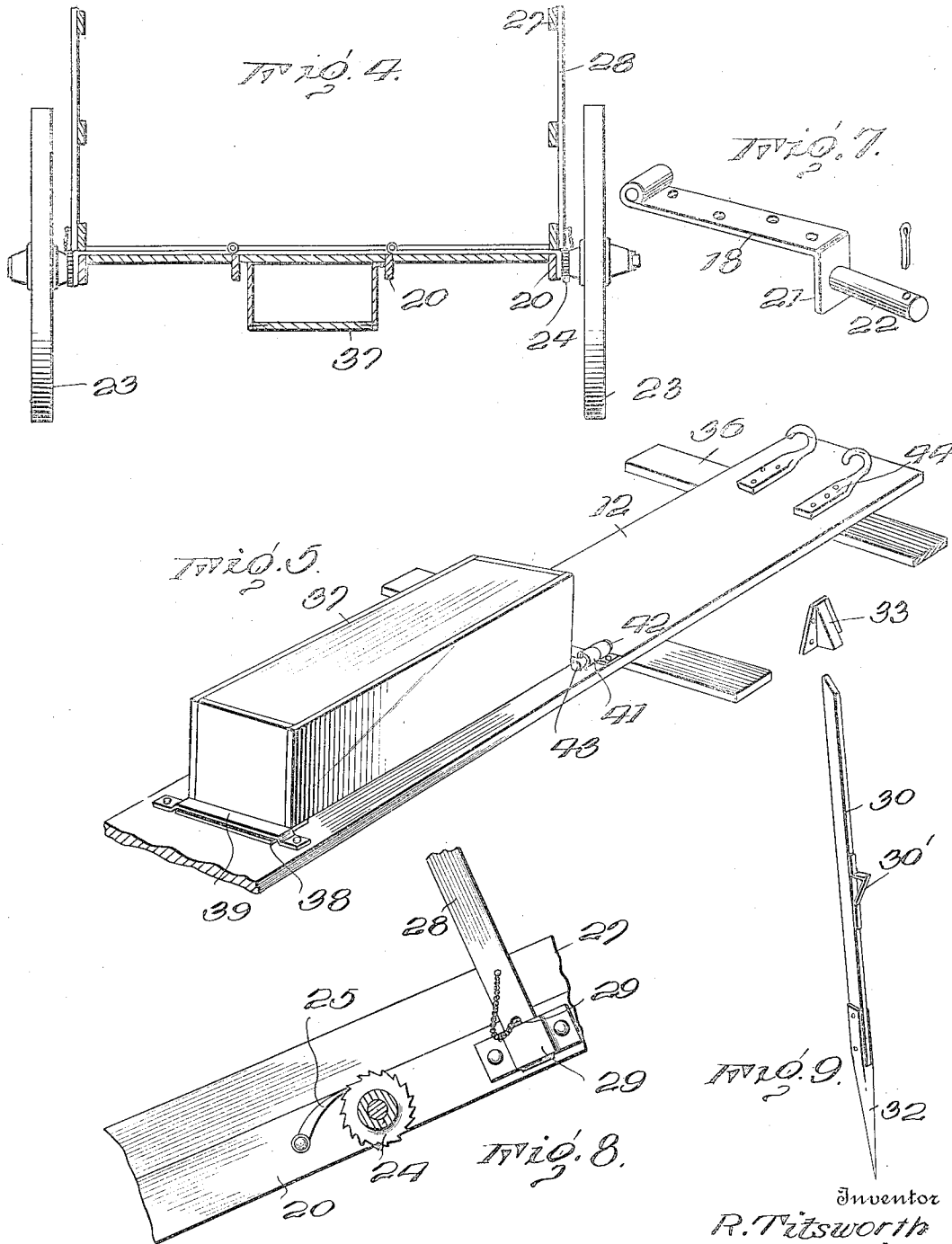
GANGWAY.

APPLICATION FILED DEC. 31, 1915.

Patented Apr. 24, 1917.

3 SHEETS—SHEET 3.

1,224,045.



Inventor
R. Titsworth

By

Hansley Attorneys

UNITED STATES PATENT OFFICE.

RICHARD TITSWORTH, OF FORT BLISS, TEXAS, ASSIGNOR OF ONE-THIRD TO THOMAS J. WALSH, OF FORT BLISS, TEXAS.

GANGWAY.

1,224,045.

Specification of Letters Patent.

Patented Apr. 24, 1917.

Application filed December 31, 1915. Serial No. 69,636.

To all whom it may concern:

Be it known that I RICHARD TITSWORTH, a citizen of the United States, residing at Fort Bliss, in the county of El Paso and State of Texas, have invented certain new and useful Improvements in Gangways, of which the following is a specification.

This invention contemplates an improved gangway especially designed for army purposes in field use and has as its primary object to provide a device of this character which may be easily moved from place to place and which may be readily employed in loading stock or wagons upon cars or other carriers.

The invention has as a further object to provide a device of this character which will be collapsible so that it may be loaded for transportation to occupy a minimum space. And a still further object of the invention is to provide a gangway having the floor thereof formed of sections and wherein certain of the sections will be adapted to provide ramps for loading wagons upon a car or other carrier.

Other and incidental objects will appear as the description proceeds and in the drawings wherein I have illustrated the preferred embodiment of the invention and wherein similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a perspective view showing my improved gangway in connection with a conventional type of railway car,

Fig. 2 is a similar view showing certain of the sections of the floor of the gangway used as ramps in connection with a conventional type of car,

Fig. 3 is a plan view more particularly showing the manner in which the sections of the floor of the gangway are connected,

Fig. 4 is a transverse sectional view showing the arrangement of the tool box provided upon the floor of the gangway,

Fig. 5 is a fragmentary perspective view of the section of the floor carrying the tool box and more particularly showing the mounting of the said box as well as the hook provided for connecting the gangway to a wagon so that the gangway may be drawn about with the wagon,

Fig. 6 is a fragmentary plan view particularly showing the manner in which the tool

box is connected to the floor of the gangway,

Fig. 7 is a detail perspective view of one of the members employed for connecting the sections of the floor of the gangway and provided with an axle for receiving a supporting wheel for the gangway,

Fig. 8 is a fragmentary side elevation partly in section and particularly showing the pawl and ratchet mechanism associated with the supporting wheels for the gangway whereby the said wheels may be locked to hold the gangway abutting the side of a car or platform, and

Fig. 9 is a detail perspective view of one of the stakes or brace members employed for supporting the side frame members of the gangway and also showing the type of sockets which are carried by the said frame members for receiving the inner ends of the stakes.

In carrying out my invention, the floor of my improved gangway is formed of a plurality of longitudinal sections including outer sections 10 and 11 respectively and an intermediate section 12. Secured to the sections 11 and 12 adjacent the inner extremity of the floor, are coacting straps 13 terminally provided at the free ends thereof with registering loops which receive a bolt or other suitable fastening device 14 for connecting the said sections. Secured to the sections 10 and 12 adjacent the opposite extremity of the floor, are coacting straps 15 which are also provided at the free ends thereof with registering loops which receive a fastening device 16 similar to the fastening device 14 for connecting the said sections. Secured to the section 12 at a point slightly nearer one end thereof than the other, is a strap 17 with which are arranged to coact, similar straps 18 which are respectively secured to the sections 10 and 11. The adjacent ends of the straps 17 and 18 are provided with registering loops which receive bolts or other suitable fastening devices 19 for connecting the several sections intermediate their ends. In this manner, the sections of the floor are firmly connected while, at the same time, the said sections may be easily detached from each other by simply removing the bolts 14, 16, and 19, respectively.

Secured to opposite longitudinal edges

of each of the sections 10 and 11 are coacting runners or cleats 20, and it will now be noted upon an inspection of Fig. 2 of the drawings that the straps 18 are, at their outer ends, provided with laterally directed terminals 21, as more particularly shown in Fig. 7, disposed to seat against the adjacent cleats 20 upon the outer edges of the sections 10 and 11. Extending laterally from the terminals 21 are stub axles 22 which detachably receive supporting wheels 23. The members 18 thus provide combined connecting and supporting wheel carrying members, the said members cooperating with the strap 17 in joining the sections of the floor of the gangway and receiving the supporting wheels 23. Fixed to the hubs of the wheels 23 at the inner extremities thereof are ratchets 24 particularly shown in Fig. 8 and mounted upon the sections 10 and 11 to cooperate with the said ratchets are pawls 25. It will now be noted that the gangway may be easily moved from place to place upon its supporting wheels 23 and for holding one end of the floor against a car, as conventionally shown at A in Fig. 1, the pawls 25 may be moved to engage the ratchets 24 and thus prevent retrograde movement of the supporting wheels. At the adjacent extremities thereof, each of the sections 10 and 11 is provided with a pair of double ended or T-shaped hooks 25' adapted to engage the rail 26 of the car for detachably connecting the gangway with the car.

Associated with the floor of the gangway are side members or frames 27 each provided with a plurality of vertically extending strips 28 which, at their lower extremities are received within loops 29 secured to the adjacent cleats 20 upon the outer edges of the sections 10 and 11 of the floor. Detachably connecting the frame members to the floor are a plurality of pins 29' which are carried by the frame members and are fitted in registering openings formed in the strips 28 and in the sections 10 and 11 of the floor. The pins 29' are preferably connected to the strips by short lengths of chain to prevent the accidental loss thereof. Supporting the frame members 27 adjacent their inner extremities or at the ends thereof contiguous to the car A, is a pair of stakes 30 while a pair of similar stakes 31 are arranged to brace the said frame members adjacent their outer extremities, the pair of stakes 30, of course, being longer than the pair of stakes 31. All of these stakes are similar in construction and are of the type illustrated in detail in Fig. 9 of the drawings, being each provided at their outer ends with a suitable point or sharpened terminal 32 adapted to engage the ground. Secured to the pair of stakes 30 are brackets 30' the purpose of which will presently appear.

Secured to each of the frame members 27

adjacent opposite ends thereof and preferably connected to the outermost of the strips 28 at their upper extremities, are sockets 22 adapted to removably receive the inner extremities of the stakes.

It will therefore be seen that my improved gangway may be easily arranged adjacent a car or other carrier as shown in Fig. 1 with the floor of the gangway connected to the car by the hooks 25', as previously described, and with the supporting wheels held against retrograde movement in the manner heretofore set forth. The stakes 30 and 31 may then be easily positioned to properly support the side frames 27 of the gangway. Secured to the outer ends of the sections 10 and 11 are loops 34 adapted to removably receive stakes 35 which are driven into the ground for holding the outer end of the gangway against shifting movement. Live stock may then be directed over the gangway into the car and in order to provide a purchase for such live stock, the section 12 of the floor of the gangway at a plurality of longitudinally spaced points, is provided with a series of transversely extending cleats or members 36 secured in any suitable manner to the upper face of the said section with the ends thereof freely overlying the sections 10 and 11. The cleats will, therefore, also serve to brace the sections of the floor.

Mounted upon the section 12 of the floor to depend from the lower side thereof, is a tool box 37. Extending laterally from the upper edge of this box at one end thereof, is a flange 38 adapted to detachably engage within a suitable bracket 39 secured to the member 12. At its opposite end, the box 37 upon the upper edge thereof, is provided with a laterally extending flange 40 as more particularly shown in Fig. 6 which is terminally provided with loops 41 adapted to register with the loops of the strap 42 carried by the member 12. Removably fitted through the said loops are bolts 43 for detachably connecting the tool box with the said member. Tools of any suitable character may be placed within this box so that the box will provide a convenient means for the transportation of the said tools.

Since my improved gangway is particularly designed for army field use, wherein it may often be desired to move the gangway from place to place, I have provided the device with a pair of hooks 44 which are secured to the section 12 of the floor of the gangway adjacent one extremity thereof. These hooks may be employed in attaching the gangway to the rear of a wagon so that the gangway may be pulled about with the wagon.

In Fig. 2 of the drawings, I have shown the manner in which the sections 10 and 11 of the floor are adapted to provide ramps

for loading wagons onto a car or platform. The side frames 27 particularly illustrated in Fig. 1 are first removed. The pair of stakes 30 are preferably then employed to lift one end of the gangway by placing the brackets 30' of the said stakes beneath the floor thereof when the supporting wheels 23 may be easily removed. The sections 10 and 11 of the floor are then disconnected from the sections 12 in the manner previously described. The said sections are then reversed from the normal position which they occupy when assembled with the section 12 to form the floor of the gangway and the hooks 25 thereof are engaged with the rail 26 of the car with the cleats 20 extending upwardly for guiding the wheels of vehicles over the said sections. The sections 10 and 11 are thus adapted to provide ramps when used in connection with a car as illustrated in Fig. 2 or, when used in connection with a platform in a similar manner, the said sections will provide an efficient means for loading wagons or other vehicles onto the car or platform.

It will therefore be seen from the preceding description, that I provide a very simple and efficient construction for the purpose set forth and it will be noted that the several parts of the gangway may be readily disconnected from each other so that the entire device may be loaded for transportation to occupy a minimum space.

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

1. A gangway including a sectional floor, means connecting the said sections, and runners carried by certain of the sections with the said last mentioned sections detachable to be reversed for providing ramps independent with respect to each other and having the said runners projecting upwardly to form guides for the wheels of vehicles passing over the said ramps.

2. A gangway including a sectional floor, a plurality of members respectively secured to and connecting the sections of the floor, and supporting wheels carried by certain of the said members.

3. A gangway including a floor, supporting wheels for the gangway, side members associated with the floor, and ground engaging stakes engaged with the side members for bracing the said members and provided with brackets adapted for engagement beneath one end of the floor with the opposite

end of the floor engaging with the ground and with the said stakes supporting the floor whereby the said wheels may be detached.

4. A gangway including a sectional floor, and a plurality of straps connected to corresponding sides of the floor sections one to each of the said sections with coacting ends of the said straps secured together for connecting the sections of the floor, certain of the floor sections being removable and formed upon the opposite sides thereof with unobstructed faces to provide complementary ramps independent with respect to each other.

5. A gangway including a sectional floor, means connecting the said sections, and double ended hooks carried by certain of the said floor sections with corresponding ends of said hooks adapted to support the floor at one extremity thereof, the said last mentioned sections being removable to be reversed for providing ramps adapted to be supported at the adjacent extremities thereof by opposite corresponding ends of said hooks.

6. A gangway including a sectional floor, a plurality of members secured one to each of the floor sections and connecting the said sections, axles formed on certain of the said connecting members, and supporting wheels carried by the said axles.

7. A gangway including a sectional floor, means including coacting elements secured one to each of the floor sections and connecting the said sections with the outermost sections removable to be reversed for providing ramps, and a plurality of reinforcing cleats connected to an intermediate section and overlying the outermost sections with the extremities of the said cleats acting to hold the said outermost sections against upward movement with respect to the said intermediate section.

8. A gangway including a floor, depending loops carried by the floor, a receptacle arranged beneath the floor to be closed thereby, a flange carried by one extremity of the receptacle and engaging in one of said loops, loops carried by the opposite extremity of the receptacle, and means connecting said last mentioned loops with the other of said first mentioned loops for securing the receptacle to the floor.

In testimony whereof, I affix my signature.

RICHARD TITSWORTH. [L. s.]