No. 869,654. PATENTED OCT. 29, 1907.

E. V. RIDEOUT.

GANG PLANK.

APPLICATION FILED MAY 3, 1907.

Fig. 1.

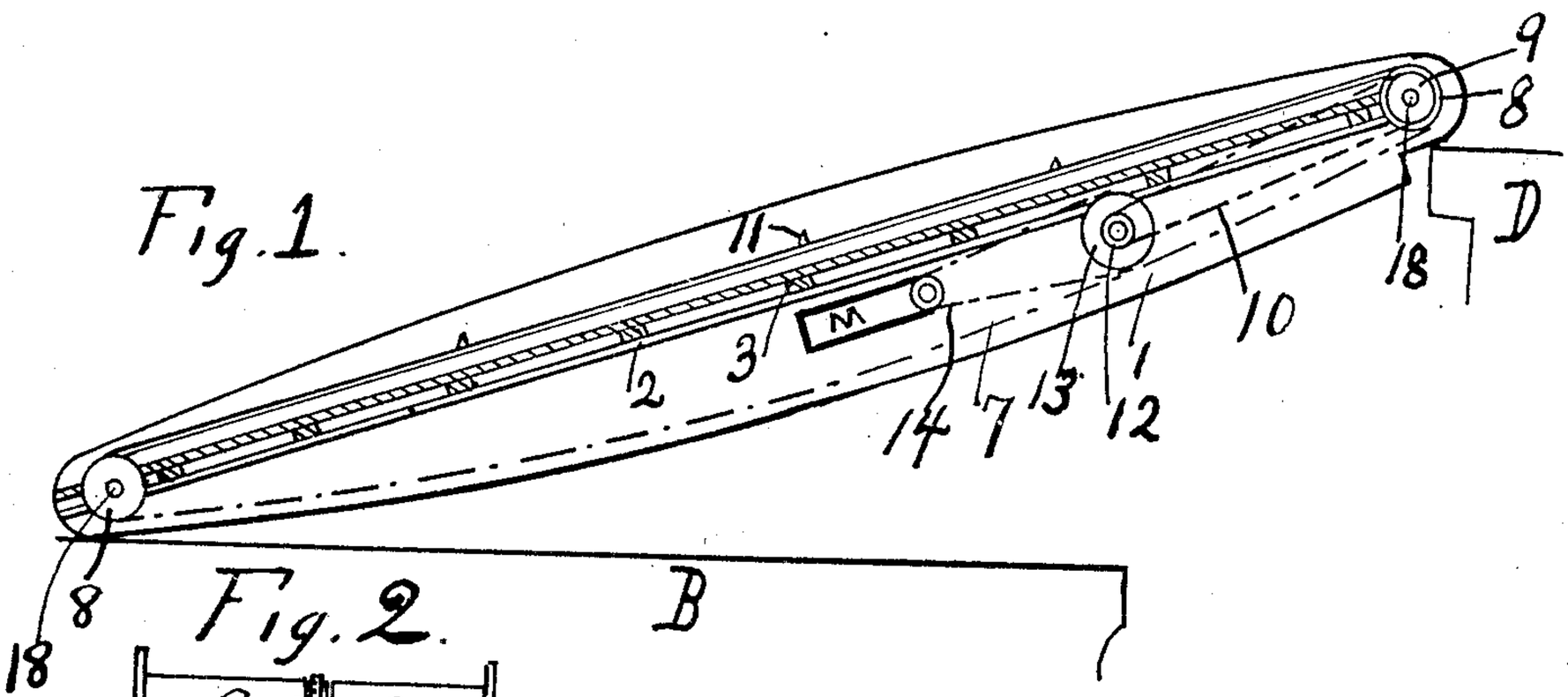


Fig. 2.

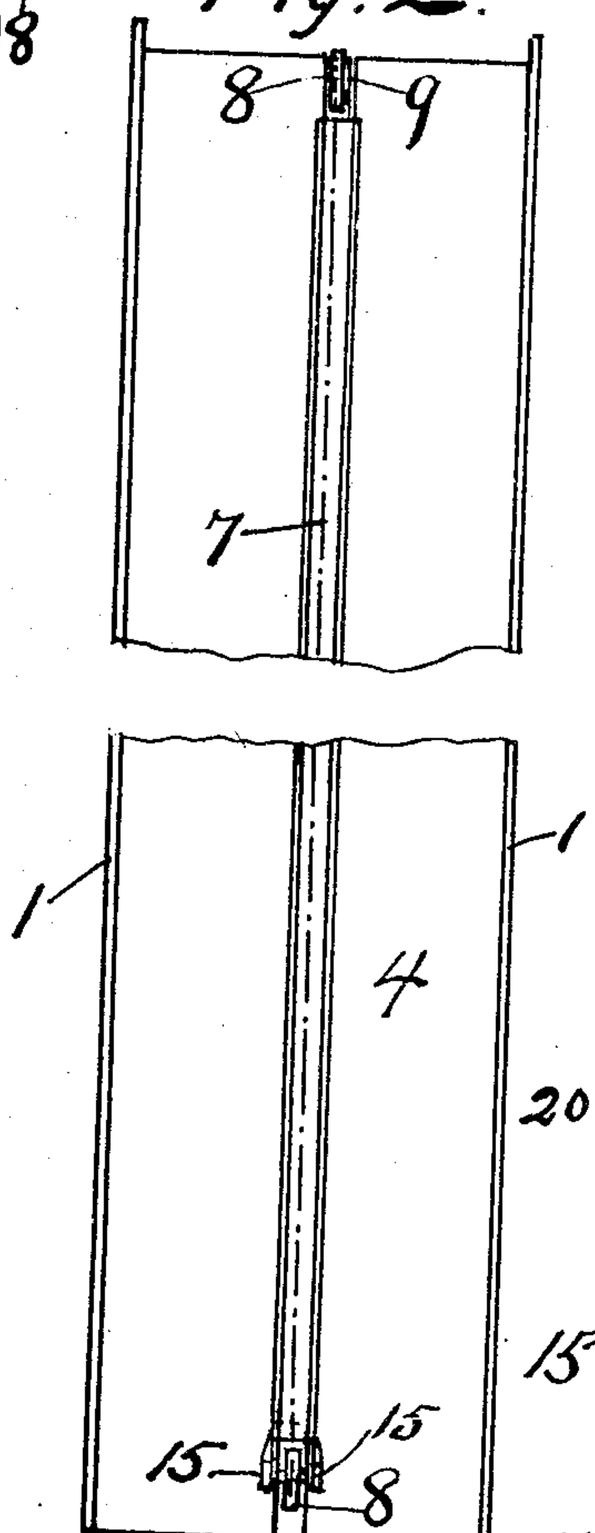


Fig. 4.

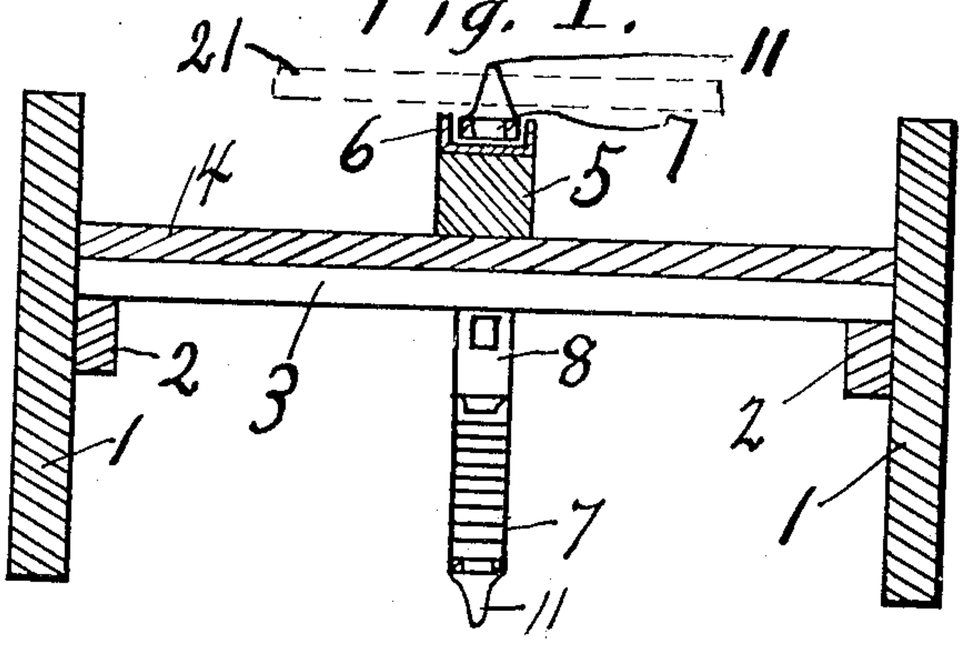


Fig. 3.

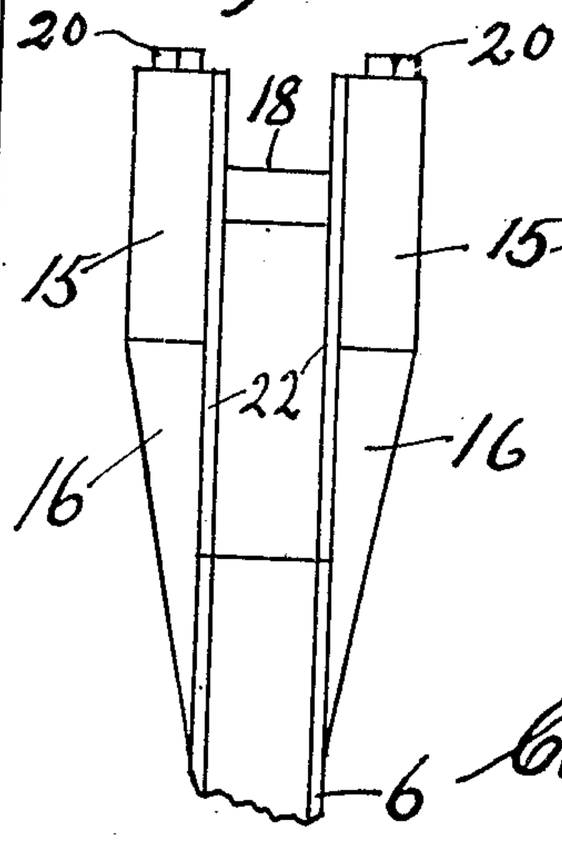
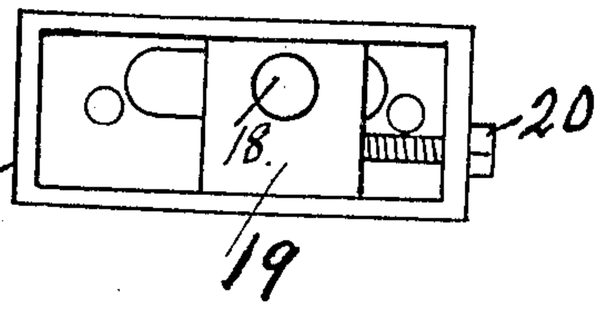


Fig. 5.



WITNESSES:

F. B. Griffin

C. R. Olney.

INVENTOR

E. V. Rideout

BY

Carlos P. Griffin

ATTORNEY

UNITED STATES PATENT OFFICE.

ERNEST V. RIDEOUT, OF SAN FRANCISCO, CALIFORNIA.

GANG-PLANK.

No. 869,654. Specification of Letters Patent. Patented Oct. 29, 1907.

Application filed May 3, 1907. Serial No. 371,570.

To all whom it may concern:

Be it known that I, ERNEST V. RIDEOUT, a citizen of the United States, and a resident of the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Gang-Planks, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to gangplanks used for unloading ships and steamers or other vessels, and its object is to expedite such unloading by assisting the men to run the trucks full of merchandise up to the wharf, or up to the deck of the boat, as the case may be.

On rivers and on bays there is nearly always some considerable difference in elevation between the decks of the boats and the level of the floors of the docks. When it happens that the boat is higher than the dock it is easy enough to run the loaded trucks off the boat, but it is very difficult for the men to run the loaded trucks up to the deck, and the opposite difficulty occurs when the boat happens to be lower than the dock.

In the drawings in which like numerals and letters of reference are applied to like parts throughout, Figure 1 is a longitudinal section of the gangplank near its center, and in the position in which it is used. Fig. 2 is a plan of the plank shortened for purposes of illustration. Fig. 3 is a plan of the boxing at the takeup end of the chain. Fig. 4 is a section near the ower end of the plank and ooking to the left in Fig. 1, and Fig. 5 is a detail of the boxes used on the takeup end of the chain.

The plank is made of the two sides 1, which are about 24 feet long, and which are of sufficient depth near the center to sustain a heavy load. The planks are provided on their inner sides with the cleats 2 which run their entire length, and on these cleats are placed the cross pieces 3, which latter support the floor 4. This floor extends from side to side of the plank and from one end to the other, and it is wide enough for an ordinary wheeled hand truck to travel between the sides 1. In the center of the floor is placed a long rail 5 and on the top of this rail is placed a channel iron 6 for the chain 7 to travel in. This chain passes over the wheels 8 at each end of the plank, the upper of which drives it by means of the small wheel 9, the chain 10, wheels 12 and 13 and chain 14 from the motor M. This motor may be of any type, steam, electric, or gas, and is placed in the center of the plank in such manner as to be out of the way when the plank is to be moved.

The chain 7 carries a series of flights 11 which extend above the top of the channel just far enough to allow them to catch the truck axles as the men run them on the plank, the position of an axle being illustrated in dotted lines in Fig. 4.

In order that any looseness of the chain may be taken up movable boxes are provided at the lower end of the plank. The boxes 15 are secured to plates 22, the edges of which show in Fig. 3 and which are secured to the long rail 5, the blocks 16 being provided to assist in holding the boxes in their proper position. These boxes are rectangular in shape and have a movable block 19 in which the shaft 18 of the wheel 8 is journaled. This block 19 may be moved back and forth by means of the threaded bolt 20, and in this way any slack of the chain 7 is at once taken up.

The manner of using the plank is as follows: The boat B being at a lower level than the dock D it is necessary for the men unloading the boat to have some assistance in pushing the hand trucks up the incline. A sheet of steel is placed at the lower end of the plank and the men run their trucks onto the plank, holding the truck in position long enough for one of the flights of the chain 7 to come around and catch the axle of the truck, as is shown in the dotted lines in Fig. 4, the chain then pushes the axle, and of course the truck, ahead of it, the man holding the truck in the upright position and walking behind it. As soon as the man has reached the top of the incline the truck runs off the plank down another piece of sheet steel placed at the upper end of the plank, the axle being quickly freed from contact with the flight of the chain 7. Several trucks may be coming up the plank at the same time, the only limitation being the power and the space required for each truck to stand on. This device is more adapted to use for this kind of work than an endless belt on which the trucks run, and up which both men and trucks are moved, for the reason that the men are moving all the time and have better control of the truck than when they are standing still on the conveyer. They can more easily run off the plank at the upper end where they are still walking than where the floor on which they are standing is moving, as in the case of an endless belt.

In order to keep the plank from shoving too far onto the wharf, or boat, as the case may be, there is a shoulder cut in the under side of the sides 1 at the top end as shown in Fig. 1.

All modifications of the invention coming within the scope of the appended claims are expressly reserved.

Having thus described my invention in such full and clear terms as will enable those skilled in the art to construct and use the same what I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In a gangplank, the combination of a plank near the center thereof, a rail projecting from the top of the plank, a chain passing over the rail and carried by a wheel at each end of the plank, and means to drive the chain, substantially as described.

2. In a gangplank, the combination of a plank, a rail projecting from the plank near the center thereof, a wheel at each end of the plank, a chain running over the wheels

and longitudinally of the rail, and a motor carried by the plank below the floor thereof to drive the chain, substantially as described.

3. In a gangplank, the combination of a plank, a wheel at each end of the plank and extending above the top of the plank, a rail projecting from the top of the plank, a chain passing over the wheels and rail, flights carried by the same and projecting above the chain on its upper run, means carried by the rail to hold the chain thereon and means to drive the chain, substantially as described.

4. In a gangplank, the combination of a plank consisting of two deep sides and a floor extending between the same, a rail projecting from the floor on its upper side near the center thereof, a channel iron carried by the rail, a wheel at each end of the plank, a chain passing over the wheels and in the channel, and a motor connected with one of the wheels and carried below the floor of the plank, substantially as described.

5. In a gangplank, the combination of a plank consisting of two deep sides and a floor extending between the same, a rail projecting from the upper side of the floor near its center and extending from a point near one end to a point near the opposite end of the plank, a channel iron carried by the rail, a wheel at each end of the rail, a chain passing over the wheels and in the channel iron, flights carried by the chain and projecting above the channel, and means carried by the plank to drive the chain, substantially as described.

6. In a gangplank, the combination of a plank consisting of two deep sides and a floor extending between the same, a rail projecting from the upper side of the floor near its center line, a channel iron carried by the rail, a wheel at each end of the rail, a chain passing over the wheels and in the channel, flights carried by the chain and projecting above the channel, and a motor connected with one of the wheels and carried below the floor of the plank, substantially as described.

7. In a gangplank, the combination of a plank consisting of two deep sides and a floor extending between the same, a rail projecting from the upper side of the floor near its center line, a channel iron carried by the rail, a wheel at each end of the rail, a chain passing over the wheels and in the channel, flights carried by the chain and projecting above the channel, means to tighten the chain at one end of the plank, and a motor carried by the plank on its under side and connected with the wheel at one end of the plank to drive the chain, substantially as described.

In testimony whereof I have hereunto set my hand this 27 day of April, A. D. 1907, at San Francisco, Cal., in the presence of two witnesses.

ERNEST V. RIDEOUT.

Witnesses:
J. H. WARE,
C. P. GRIFFIN.