Dec. 26, 1922. 1,440,065

W. T. DONNELLY.
TRANSFER SYSTEM.
FILED NOV. 12, 1920.

Fig. 1.

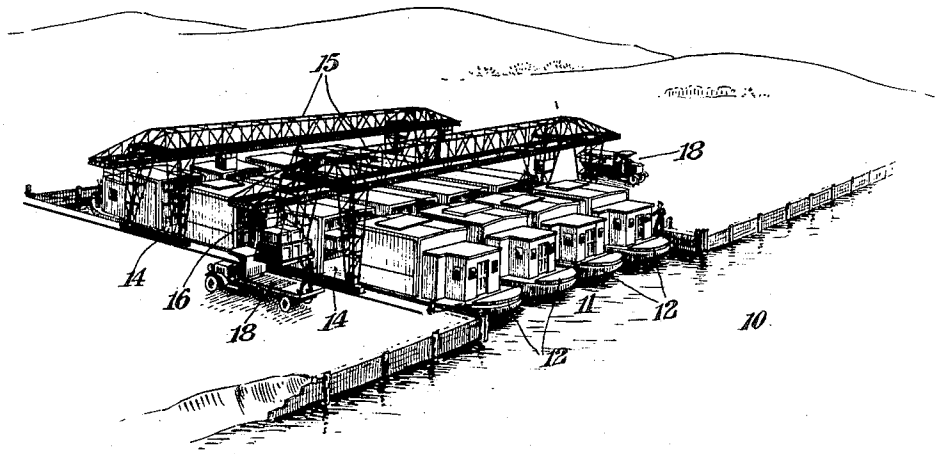
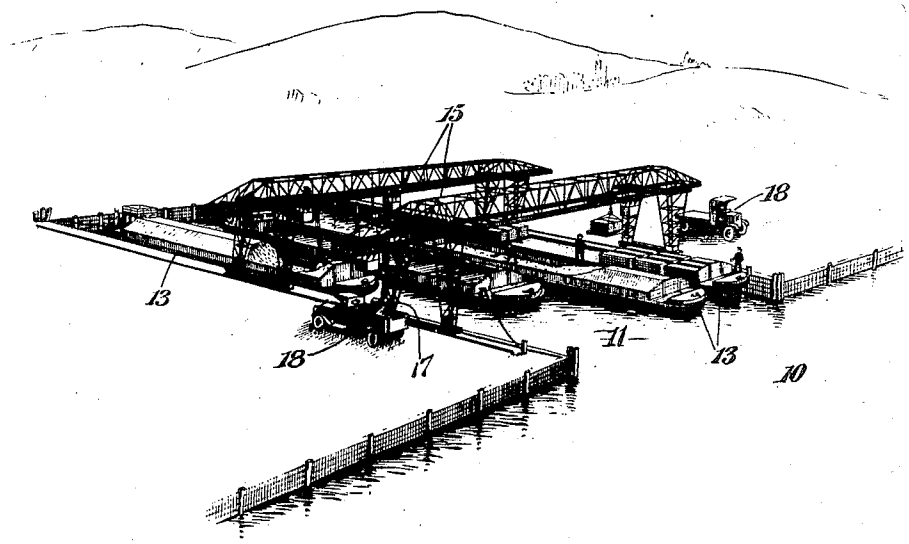


Fig. 2.



INVENTOR
William T. Donnelly
BY
Dell & Schuett
ATTORNEY

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UNITED STATES PATENT OFFICE.

WILLIAM T. DONNELLY, OF BROOKLYN, NEW YORK.

TRANSFER SYSTEM.

Application filed November 12, 1920. Serial No. 423,716.

To all whom it may concern:

Be it known that I, WILLIAM T. DONNELLY, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Transfer Systems, of which the following is a specification.

The invention relates to a system for transferring materials and commodities of various kinds from marine vessels to land vehicles and vice versa. It has for its object to facilitate and expedite the transfer by avoiding conflict between the transfer to and from the vessels, which operation may be carried on simultaneously; also, to provide for installation in any convenient location. For example, in accordance with the method proposed, it is necessary merely to cut in a suitable slip or basin from a waterway, of capacity sufficient to accommodate a plurality of barges or like vessels, and span same with conveying apparatus in manner hereinafter set forth. The arrangement is such, moreover, that there will be no conflict in the transfer operations, the same being effected upon opposite sides of the slip or basin and with the greatest possible speed. An installation of this character is suitable, moreover, for use in both urban and rural districts; and if it be further equipped with a power supply system, as more particularly set forth in my co-pending application, filed of even date herewith, it will be entirely independent of any local source of power.

The nature of the invention, however, will best be understood when described in connection with the accompanying drawings, in which—

Fig. 1 is a perspective view of my invention as embodied in connection with the transfer of material from and to barges of the closed or covered type; and Fig. 2 a similar view illustrating my invention as embodied in connection with the transfer from and to barges of the open or uncovered type.

Similar characters of reference designate corresponding parts thruout the several views.

Referring to the drawings, 10 designates a suitable waterway in which has been provided a slip 11 for receiving a plurality of barges. These may be of the closed or covered type 12, illustrated in Fig. 1; or, of the open or uncovered type 13 illustrated in Fig. 2, and one or more of each type may be active simultaneously in the same slip. However, I prefer to employ barges of the same type for a particular operation and as is set forth in the drawings.

In the embodiment illustrated in Fig. 1, the barges 12 are located in the slip 11 and alined in manner such that common passageways 14 are provided transversely of the plurality of barges. In the form illustrated in Fig. 2, where open barges are employed, the position of the barges is not so material and the same may be located variously longitudinally of the slip for most convenient operation of the transfer mechanism.

In order to expedite the transfer from and to the barges and to avoid conflict during simultaneous operation of transfer from and to same, there is provided over a slip so as to span same a gantry crane or cranes 15. These cranes are provided with suitable traveling heads provided with hooks 16 or buckets 17, or other suitable and well-known devices for handling material as may be required, and the same are designed to travel over the entire slip and project beyond both sides thereof. In this manner, the heads may travel thru the passageways 14 of the barges 12, Fig. 1, to remove a load from, for example, a far barge by means of one of the traveling heads of the crane and simultaneously therewith supply a load to said barge thru the other traveling head of said crane. It is to be understood, that the material to be transferred will always be received at one side of the slip and that to be removed from a barge delivered at the other side of the slip, respectively from and to suitable land vehicles or conveyances 18. In this manner, there will be no conflict in the operations and the work proceeds smoothly and with the greatest expedition.

I claim:—

1. The method of effecting a rapid transfer of material between a plurality of marine vessels and land vehicles, consisting in providing a suitable basin to accomodate the former, moving over the basin conveying apparatus spanning same, simultaneously transferring thereby material from and to said plurality of vessels, and directing land vehicles upon opposite sides of said basin to receive the material and supply same re-

spectively from and to the conveying apparatus.

2. In a system for transferring material between marine vessels and land vehicles, the combination with a slip adapted to receive a fleet of barges; of a gantry crane spanning said slip and having two heads arranged to move over the fleet of barges to simultaneously transfer material from and to same.

3. In a system for transferring material between marine vessels and land vehicles, the combination with a slip adapted to receive a fleet of barges; of a gantry crane spanning said slip and having two heads arranged to move over the fleet of barges to simultaneously transfer material from and to land vehicles operating upon both sides of said slip, the one to receive and the other to deliver material respectively from and to said crane.

4. In a system for transferring material between marine vessels and land vehicles, the combination with a slip adapted to receive a fleet of barges; of a crane spanning said slip and having two heads adapted to move over the fleet, land vehicles upon both sides of the slip cooperating with the movable heads to receive and deliver material respectively from and to said crane, material being removed by one head of a crane from a particular barge and supplied to said barge by the other head of the particular crane.

Signed this 12th day of November A. D. 1920.

WILLIAM T. DONNELLY.