No. 890,745. PATENTED JUNE 16, 1908.

J. WYSZYNSKI.

DRIER CAR HANDLING APPARATUS.

APPLICATION FILED MAR. 30, 1908.

Fig. 1.

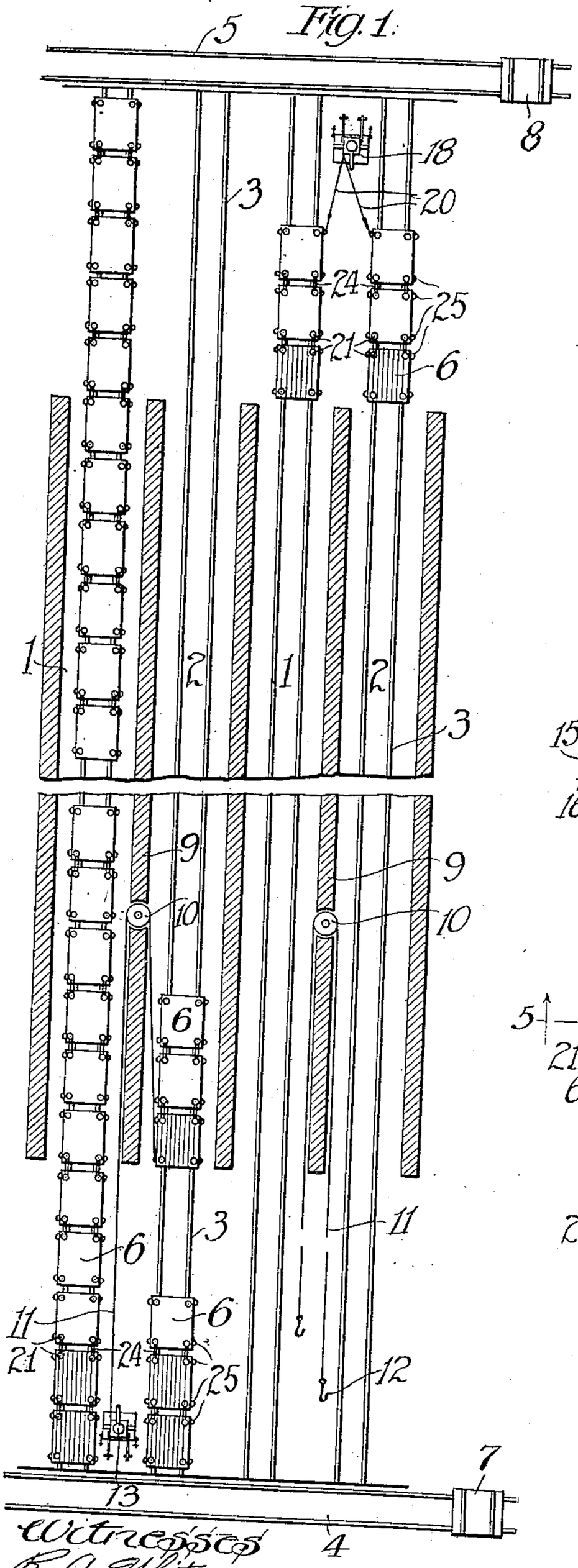


Fig. 2.

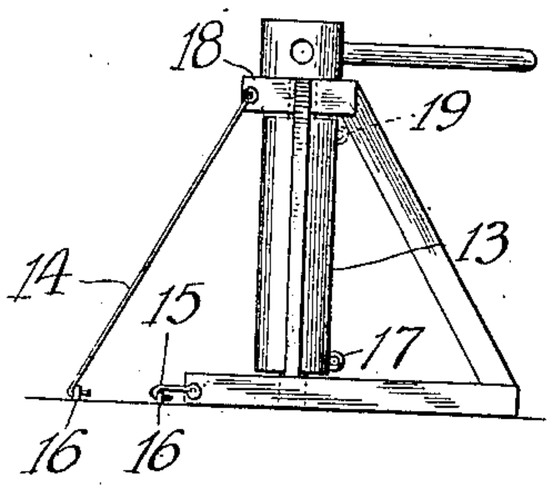


Fig. 3.

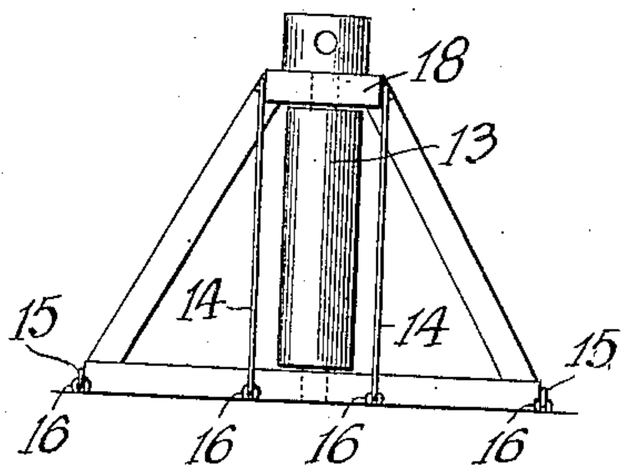


Fig. 4.

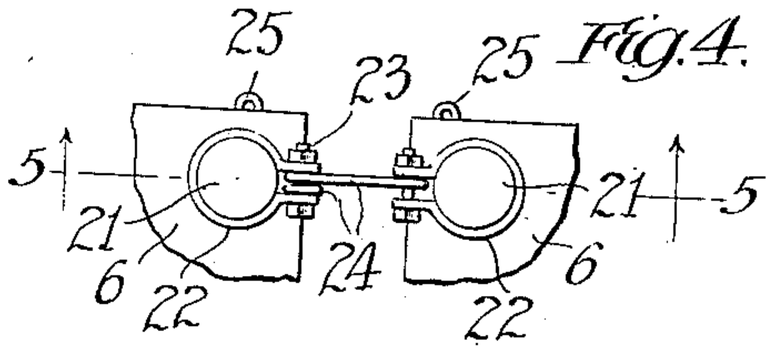
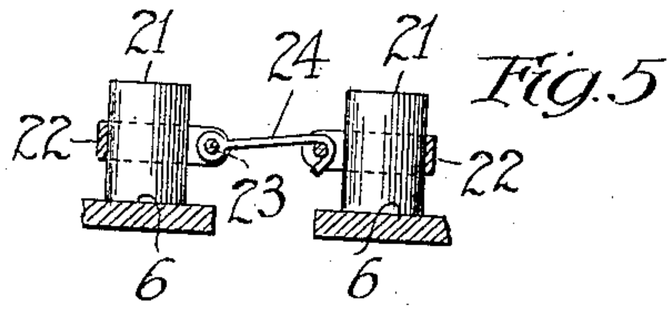


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

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DRIER-CAR-HANDLING APPARATUS.

No. 890,745. Specification of Letters Patent. Patented June 16, 1908.

Application filed March 30, 1908. Serial No. 424,165.

To all whom it may concern:

Be it known that I, JOSEPH WYSZYNSKI, a citizen of the United States of America, and a resident of Blue Island, Cook county, State of Illinois, have invented certain new and useful Improvements in Drier-Car-Handling Apparatus, of which the following is a specification.

The main object of this invention is to provide an improved apparatus for handling cars in brick driers and similar kilns which is simple, efficient and inexpensive in its construction and which is capable of effecting a large saving of labor in the operation of such kilns. This object is accomplished by the device shown in the accompanying drawing, in which—

Figure 1 is a fragmentary plan view of a battery of brick drying kilns provided with car handling apparatus constructed according to this invention, the side walls of the kilns being shown in section and the doors at the ends being omitted. Fig. 2 is a side elevation of one of the winches which form part of the apparatus shown in Fig. 1. Fig. 3 is a front elevation of the same. Fig. 4 is a top plan detail showing the method of connecting adjacent cars. Fig. 5 is a side elevation of the same, partly in section.

In the drawings, the brick drier is shown in one of the usual forms and comprises a battery of kilns or flues designated 1 and 2 arranged parallel to each other and side by side, adjacent kilns being separated by a single wall. Each kiln has a track 3 extending through it from end to end and a considerable distance beyond each end. Transverse transfer tracks 4 and 5 extend across the respective ends of the track 3. The bricks are stacked upon cars 6 which are brought from the brick making machine to the tracks 3 by means of transfer trucks 7 on the track 4. Similar transfer trucks 8 receive the cars from the opposite ends of the tracks 3 and carry them along the transfer tracks 5. The trucks 7 and 8 have tracks thereon which are level with the tracks 3, the tracks 5 being below the grade of the tracks 3.

In each of the alternate walls 9 which separate adjacent kilns a sheave 10 is journaled on a vertical axis at a point a considerable distance inward from the front end of the kilns. Each of the sheaves 10 is preferably of such diameter that the chain or cable 11 may extend around it and have its two ends extend along the kilns which are respectively at opposite sides of the sheave 10. Each end of the cable is provided with fastening means preferably comprising a hook 12.

A portable winch 13 of the form shown in Figs. 2 and 3 is provided at the front end of the kiln. This winch is provided with attaching hooks 14 and 15 which are adapted to engage stationary eyes or staples 16 suitably located in front of the alternate dividing walls 9 in which the sheaves 10 are located. The drum of this winch is provided with a staple or eye 17 to which either of the hooks 12 of either of the cables 11 may be attached. A winch 18 similar to the winch 13 is provided for the rear end of the kiln and is attached to similar eyes 16. The eyes for the winches 18 are preferably located near the rear ends of the tracks 3, while those of the winch 13 are located near the front ends of the walls 9. The winch 18 is provided with an additional staple or eye indicated at 19 in Fig. 2, so that two cables 20 may be simultaneously wound upon the same winch for withdrawing cars from both of the adjacent kilns at one operation.

Each of the cars 6 is provided with four posts 21 at the corners thereof, and each of these posts is fitted with a clevis consisting of a strap 22 and bolt 23. A hook 24 is mounted on each of the bolts 23, and the spacing between the ends of the straps is in each case sufficient to permit another hook to be engaged with the bolt 23 at the side of the hook which is attached thereto. Staples 25 are provided at the side near each corner of the cars, to which the hooks 12 of the cables 11 and 20 may be attached.

The operation of the device shown is as follows:—When handling cars with the herein described apparatus, the work of pushing cars into the kilns and pulling others out is all accomplished by one man, who handles the cars by means of the winches 13 and 18, as will be hereinafter described. The cars are delivered to the tracks 3 by a second operator, by whom they are taken from the brick making machines on the trucks 7 and then pushed from said trucks upon the tracks 3. Another transfer operator removes the cars one at a time from the rear end of the tracks 3, and delivers them along the tracks 5 to their next destination. The cars are preferably handled in trains of three. The three cars of each train are fastened together by means of the hooks 24, and ordinarily

the trains abut one another so that the row of cars extends throughout the entire length of each kiln. In withdrawing trains of cars at the rear of the kiln, the operator attaches both of the cables 20 to hooks 25 at the front ends of the cars in two adjacent kilns 1 and 2, and by operating the winch the two trains which are at the rear of the respective kilns are withdrawn as illustrated in Fig. 1. The operator then transfers the winch 18 to a new position and withdraws trains of cars from the corresponding pair of kilns. After withdrawing all of the trains whose bricks have been completely dried, he passes to the front end of the kiln and pushes new trains of loaded cars into the kilns from which cars have been withdrawn. To push a train of the cars into one of the kilns 2, the corresponding hook 12 of the cable 11 is fastened to the rear end of the rear car of the train, as illustrated in Fig. 1, and the hook at the opposite end of the same cable is attached to the winch. Then by rotating the winch the train of cars is pulled into the kiln, and when it is entirely within the kiln the operator may disconnect the cable from it without entering the kiln. By removing the opposite end of the cable 11 from the winch, attaching it to the rear car of a train in front of the corresponding kiln 1, and then attaching the opposite hook 12 to the winch, a train may be pulled into such kiln without moving the winch. In this manner the trains in each pair of kilns are handled without changing the position of the winches at the opposite ends thereof and without necessitating the operator's entering the kilns. The winch 13 is shifted from one position to another, in a manner similar to that described in regard to the winch 18.

By means of this apparatus one man at the drier is able to accomplish the work which has heretofore required three men.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination of a pair of parallel kilns arranged side by side, a wall between said kilns, a track extending longitudinally through each of said kilns, a cable extending through said wall at a point a considerable distance inward from one end of the kiln and having its ends extending outward toward said end in different kilns, and a winch located at said end and adapted for hauling said cable for moving cars on each of said tracks.

2. The combination of a pair of parallel kilns, tracks extending longitudinally therethrough, a cable extending into one end of one of said kilns, then across to the other, and back within said other kiln to the corresponding end thereof, suitable guiding means for said cable, a winch adapted for hauling said cable in both directions, and cars in said kilns adapted to be attached to said cable.

3. The combination of a pair of parallel kilns, a dividing wall between them, tracks extending longitudinally through said kilns, a cable extending into one end of one kiln, through said wall and back along the other kiln to the same end, a sheave for guiding said cable through said wall, attaching means at each end of said cable, a winch located at the end of said kilns and adapted to haul each end of said cable, cars on said tracks, and means at the both ends of said cars adapted to engage said cable attaching means and permit the cars to be moved in each kiln and to be attached or detached from the cable without requiring an operator to enter the kiln.

Signed at Chicago this 27th day of March, 1908.

JOSEPH WYSZYNSKI.

Witnesses:

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