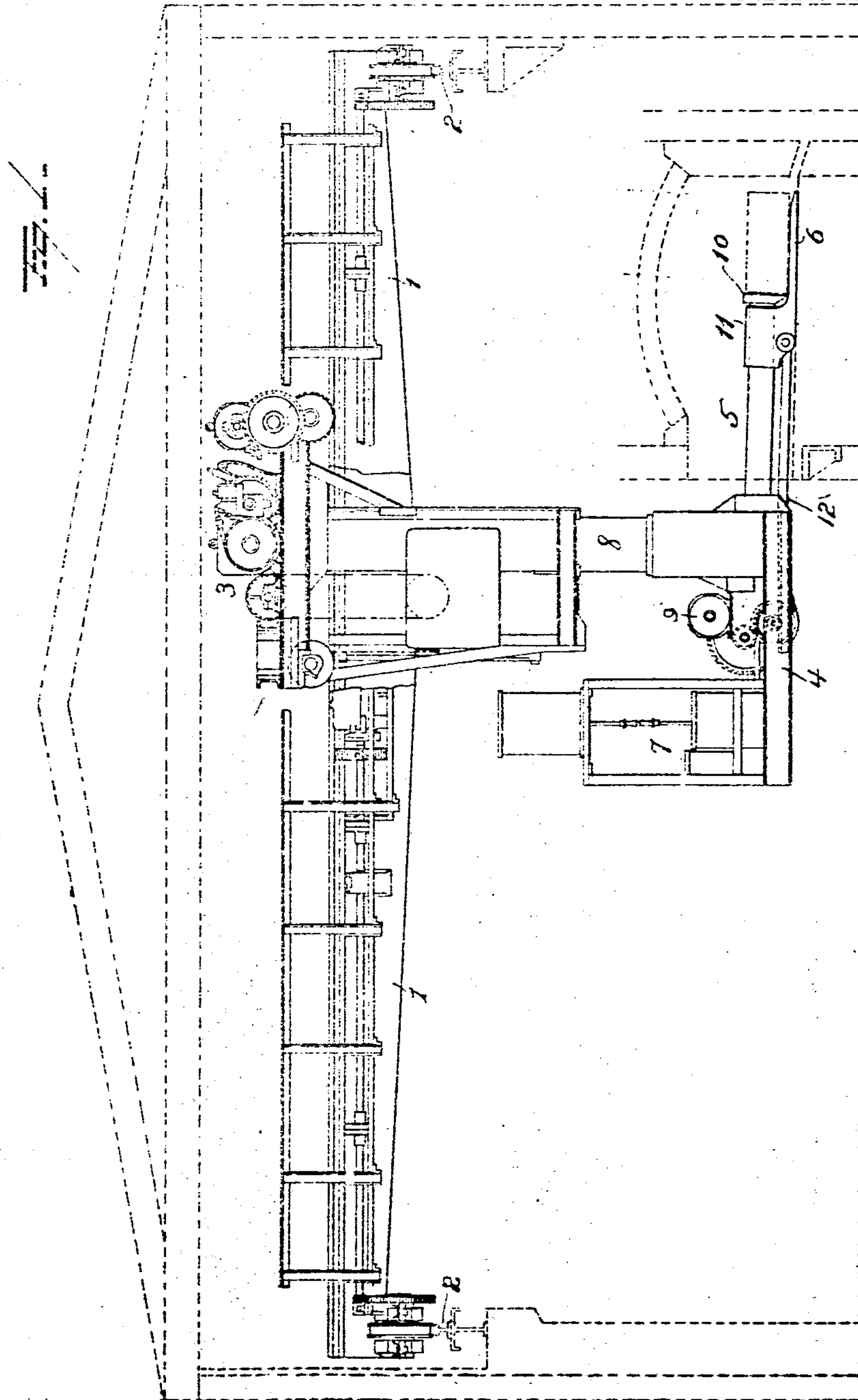


C. L. TAYLOR.
CHARGING CRANE.
APPLICATION FILED OCT. 1, 1907.

899,083.

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.



WITNESSES

E. J. Nottingham
G. B. Downing

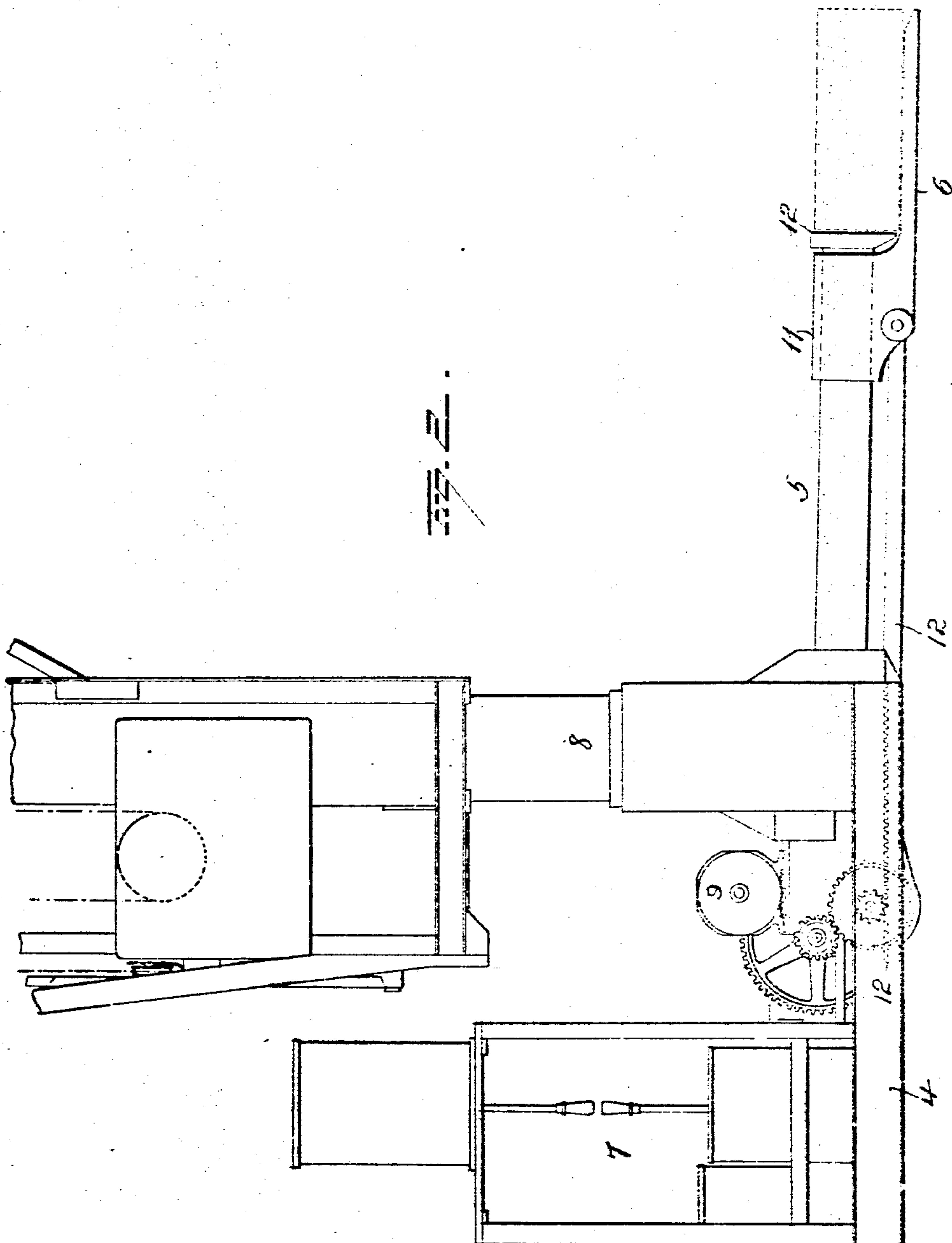
INVENTOR

C. L. Taylor
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Attorney

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3 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CLARENCE L. TAYLOR, OF ALLIANCE, OHIO, ASSIGNOR TO THE MORGAN ENGINEERING COMPANY, OF ALLIANCE, OHIO.

CHARGING-CRANE.

No. 899,083.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed October 1, 1907. Serial No. 395,441.

To all whom it may concern:

Be it known that I, CLARENCE L. TAYLOR, of Alliance, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Charging-Cranes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in charging cranes, adapted more particularly for handling slabs or sheets of copper in charging horizontal furnaces, the object being to provide means whereby the pack may be moved to any position within the furnace, and deposited therein by the withdrawal of the peel, without actuating the trolley while the pack is being deposited within the furnace.

With this object in view my invention consists in the parts and combinations of parts as will be more fully described and pointed out in the claims.

In the accompanying drawing, Figure 1 is a view in side elevation of my improvement, and Fig. 2 is a view showing the gearing for moving the peel longitudinally.

1 represents a traveling bridge mounted to travel on rails 2, and 3 is a trolley mounted to travel on rails secured longitudinally on the bridge girders, in the usual and well known manner.

Supported from the trolley is a frame 4 carrying the fixed charging bar 5, peel 6 operator's cage 7 and motor and gearing for moving the peel longitudinally. This frame 4 is vertically adjustable, means being provided on the trolley for supporting elevating and lowering same, and for counterbalancing it, the special means employed being unimportant; as the invention herein claimed resides solely in the charging bar and peel. The charging bar 5 is secured to the front end of frame 4 in advance of the means 8 by which the frame is suspended from the trolley, the operator's cage 7 and motor 9 for actuating the peel, being on the opposite side of said means 8 so as to counter balance the weight of the charging bar and peel. The charging bar 5 may be cylindrical or angular in cross section, and is provided at its free end with a head 10 the lower edge of which is beveled so as to permit the hub of the peel to move closer up than it could if made with

a right angle edge. This head is larger than the end of the charging bar, and forms a support or abutment for the sheets or slabs resting on the peel or spade 6. This peel or spade is provided with parallel top and bottom surfaces, is of a size sufficient to receive and solidly supports the sheets or slabs, and is provided at its inner end with a hub 11 which latter is mounted to slide on the charging bar 5. This hub has free sliding movement on the charging bar between the head 11 and frame 4, and as the head 10 rests over this peel, with its lower edge adjacent to the top surface of the peel, it will be seen that as the peel is moved rearwardly, the slabs or sheets thereon will be held against rearward movement by the head 10 of charging bar 5, thus permitting the peel to be withdrawn from under the pack. The hub 11 is connected to a rock bar 12, actuated by gearing connected with the motor 9. By rotating the motor the hub and its peel can be moved to a position to receive a pack or rearwardly to discharge same, the controlling means for the motor actuating the peel and also the several motors on the bridge and trolley, being located in the operator's cage 7.

With this apparatus the bridge can be moved to a position over the furnace and after the frame 4 has been moved vertically, if necessary, to bring the peel and its load in a position to pass through the door of the furnace, the trolley is caused to travel on the bridge thus carrying the peel and its load into the furnace. After the proper position for the deposit of the pack has been reached, the peel is lowered onto the floor, and then by withdrawing the peel as previously explained, the pack will be deposited on the floor of the furnace.

It is evident that many slight changes might be resorted to in the relative arrangement of parts shown and described without departing from the spirit and scope of my invention hence I would have it understood that I do not wish to confine myself to the exact construction and arrangement of parts shown and described, but,

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

1. In a crane, the combination with a traveling bridge and a trolley thereon, of a frame suspended from the trolley, a fixed charging bar projecting from said frame, and

a peel adapted to be moved outwardly with relation to the head of the charging bar for discharging the slabs or sheets onto the floor of the furnace.

5 2. In a charging crane, the combination with a traveling trolley, of a frame suspended therefrom, a fixed charging bar carried by said frame, a peel movable outwardly with
10 relation to the head of the charging bar for discharging the sheets or slabs onto the floor of the furnace, and means for moving the peel.

3. In a charging apparatus the combination with a movable support and a fixed
15 charging bar carried thereby, of a peel mounted to move outwardly on the charging bar for discharging the sheets or slabs onto the floor of the furnace, and means for moving the peel.

4. In a charging apparatus, the combina-

tion with a movable support and a fixed charging bar carried thereby, the latter having a head at its free end, of a peel mounted to move outwardly on the charging bar for discharging the slabs or sheets, and means for
25 moving the peel.

5. In a charging apparatus, the combination with a movable support and a fixed charging bar carried thereby, of a peel located in a plane below the charging bar and
30 provided with a hub mounted to slide on said bar, and means for moving the hub longitudinally.

In testimony whereof I have signed this specification in the presence of two subscrib-
35 ing witnesses.

CLARENCE L. TAYLOR.

Witnesses:

N. C. TETTERS,
HARRY W. KING.