J. B. LADD.

METHOD FOR HANDLING BRICKS.

APPLICATION FILED SEPT. 14, 1917.

1,373,513. Patented Apr. 5, 1921.

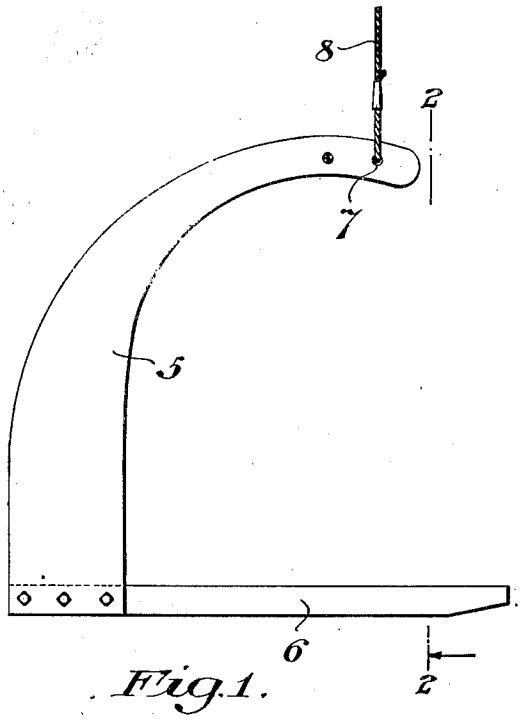

Fig. 1.

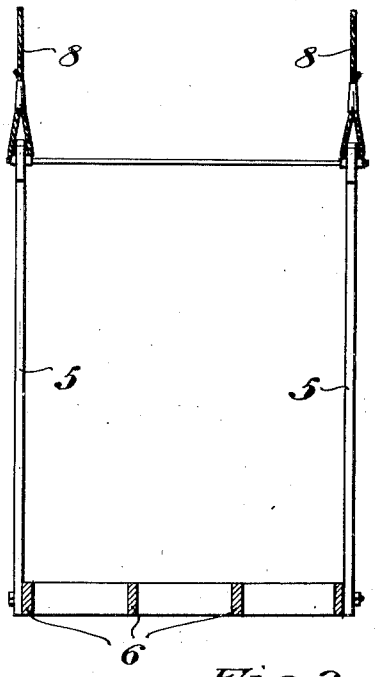

Fig. 2.

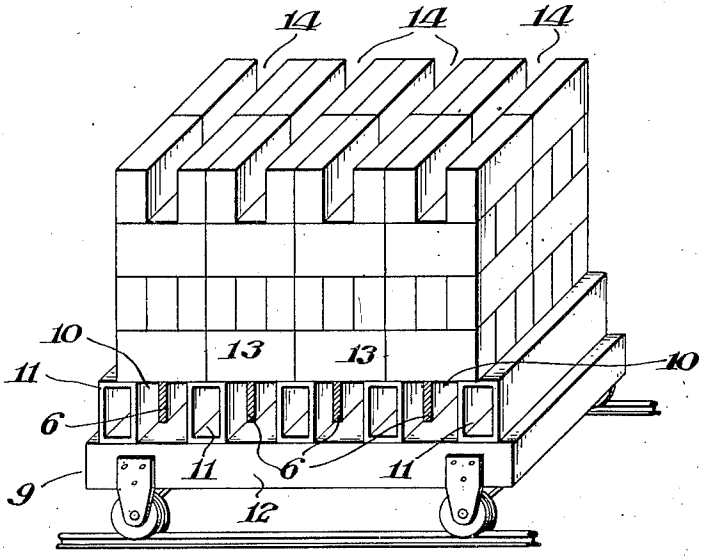

Fig. 3.

Inventor.
James B. Ladd,
By Mother & Del
Attorney.

UNITED STATES PATENT OFFICE.

JAMES B. LADD, OF ARDMORE, PENNSYLVANIA.

METHOD FOR HANDLING BRICKS.

1,373,513. Specification of Letters Patent. Patented Apr. 5, 1921.

Application filed September 14, 1917. Serial No. 191,333.

To all whom it may concern:

Be it known that I, JAMES B. LADD, a citizen of the United States, residing at Ardmore, in the county of Montgomery, State of Pennsylvania, have invented a new and useful Method for Handling Bricks, of which the following is a specification.

My invention relates to handling bricks. The object is to provide improved method for lifting and transferring bricks in stacked units.

The invention comprises improvements in the method of operating upon the stacks of bricks.

The handling devices generally used provide for lifting a stack of brick from a flat top car, and therefore the bricks must be arranged with channel spaces through the lower course, which arrangements make the lifting of the lower course difficult unless means are provided for clamping this bottom course of bricks and lifting the same with the superimposed pile or stack.

The clamping mechanism is of course expensive and more or less complicated. One of the purposes of the present invention is to eliminate such complicated mechanism, and to provide means for lifting the stack and for transferring and depositing the same in any desired position, solely by a supporting structure without the aid of any clamping device.

This is accomplished by providing a preliminary support for the brick stack, so that the fixed fingers of a crane element or the like, may be inserted beneath the lowest course of the stack to be lifted, and then upon raising the fingers, the lowest course or bottom layer will rest upon the top of the fingers and, with the superimposed layers constituting the stack, will be lifted and carried without requiring any clamping mechanism.

On comparing my device with others it will be noticed that I use a stack of bricks with a full flat bottom course and a channel spaced top course whereas the reverse formation of the stack is common practice.

Referring to the drawings, which illustrate merely by way of example suitable means for effecting my invention:—

Figure 1 is a side elevation.

Fig. 2 is a sectional elevation on line 2, 2 of Fig. 1.

Fig. 3 is a perspective view of a stacked unit, showing the lifting fingers in position for lifting the same.

Similar numerals refer to similar parts throughout the several views.

The lifting device includes the crane element comprising the frame part 5, carrying the horizontal fingers or elements 6, and having attached thereto, as at 7, suitable cables 8 which may run to the usual electric crane not shown.

The method of supporting the stacked units makes possible the use of this simple lifting device without the necessity of clamping or other supplementary means. This is secured in two principal ways. The supporting top surface of the drying car 9 is provided with channels or slots 10 made, in the present example, by elements 11 resting on the suitable framework 12 of the truck or car proper. The bricks are laid with the lower course in any way such, for example, as shown in Fig. 3, so as to bridge the channels 10. The superimposing courses obviously may be laid in any suitable way, preferably bonded together, provided the top course is laid in spaced formation, such for example, as shown in Fig. 3, securing the channels 14 in substantial alinement with the channels 10. It is also to be noted that the bricks are arranged in separate unit piles, a single unit pile superimposing each channel 10.

The bricks, as now stacked upon the drying car, are subjected to the drying process, after which they are ready to be stacked in the kiln.

This stacking in the kiln is accomplished by inserting the fingers 6 of the crane element between the elements 11 so that their upper horizontal edges will be beneath the middle portions of the lower course of bricks, and obviously when the fingers are raised each finger supports a single unit pile on the stack of piles and the entire stack is lifted from the drying car to be deposited at any desired point in the kiln.

It will be understood that the first stack in the kiln must be placed upon a formation or floor or platform having corresponding channels for receiving the fingers beneath the supporting surface of said formation. This may be accomplished by laying a course of bricks similar to the top course shown in Fig. 3, or by any other similar device, such for instance as the formation corre-

sponding to the supporting surface of the drying car.

Each stacked unit forms a suitable support for a superimposed stacked unit. The channels 14 provide means for depressing the fingers beneath the unit which they are carrying, for withdrawing the fingers therefrom, and also correspondingly provides means for inserting the fingers beneath the unit when it is desired to lift the same from the kiln after the burning operation.

It will be obvious that these channels for receiving the fingers may be run in opposite directions, or modified in any way to suit the circumstances or requirements of a particular situation.

What I claim is:—

The method of handling bricks which consists in forming stacked units with the top course arranged to form parallel channels, the channel forming bricks suitably spaced to form a support for a similar superimposed unit and at the same time to provide recesses for receiving lifting elements beneath said superimposed unit when resting upon said channel forming layer, and for permitting the withdrawal of said elements therefrom, and translating said stacked unit by inserting the lifting elements into said channels beneath the unit and moving same.

JAMES B. LADD.