May 3, 1927. 1,626,644

G. H. STOVER

APPARATUS FOR HANDLING BRICKS

Filed July 27, 1925 2 Sheets-Sheet 1

Fig. 1

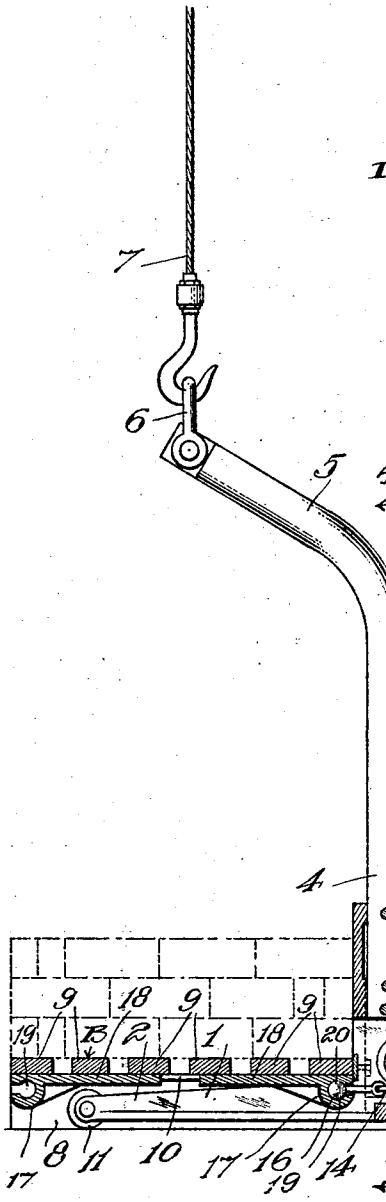


Fig. 2

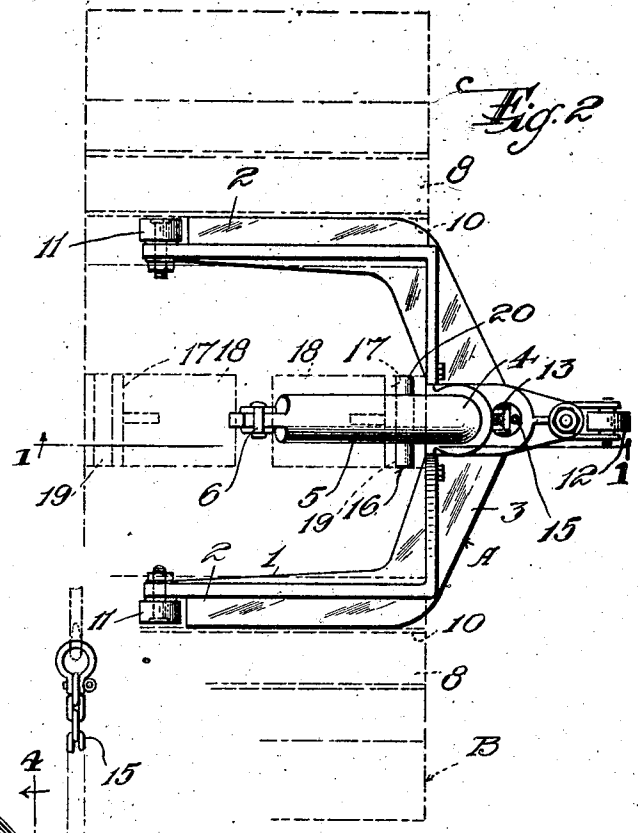
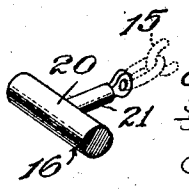


Fig. 6



INVENTOR.
George H. Stover,
BY
Everett Cook,
ATTORNEYS.

May 3, 1927. 1,626,644

G. H. STOVER

APPARATUS FOR HANDLING BRICKS

Filed July 27, 1925 2 Sheets-Sheet 2

Fig. 3

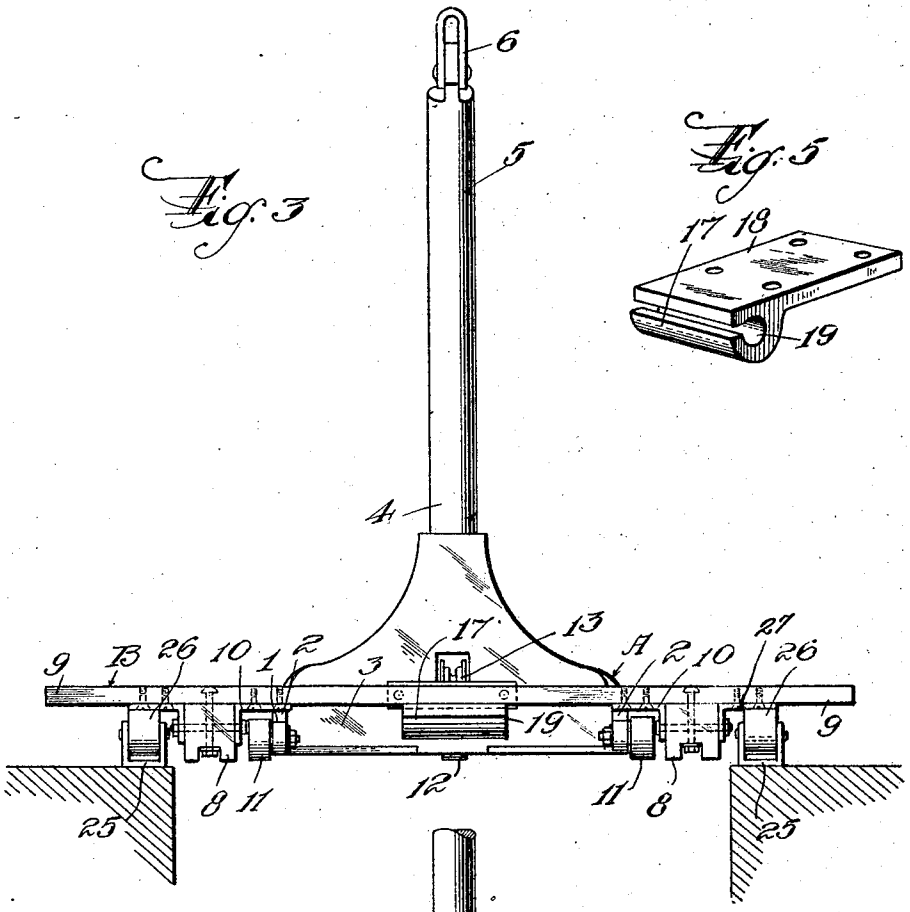
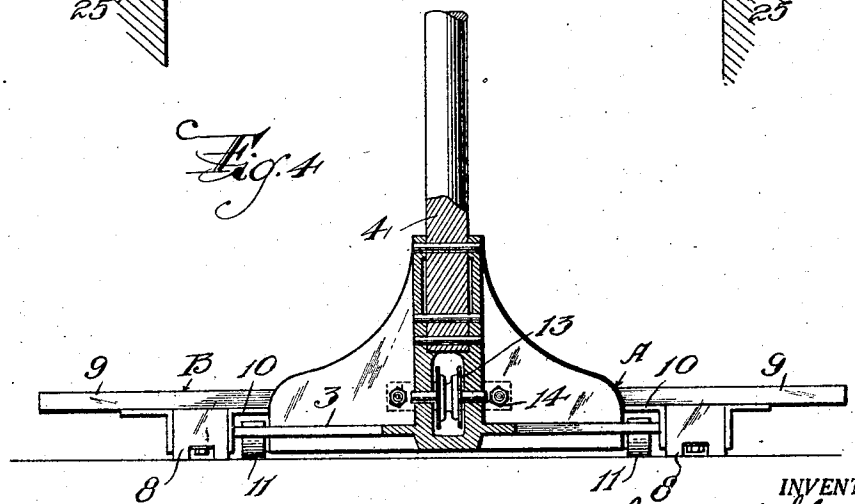


Fig. 5

Fig. 4



INVENTOR.
George H. Stover,
BY
Everett W. Cook,
ATTORNEYS.

Patented May 3, 1927. 1,626,644

UNITED STATES PATENT OFFICE.

GEORGE H. STOVER, OF NEW YORK, N. Y.

APPARATUS FOR HANDLING BRICKS.

Application filed July 27, 1925. Serial No. 46,217.

This invention relates in general to article handling devices and particularly to a device for handling a large number of piled or stacked bricks or the like at one time.

One object of the invention is to provide a novel and improved device for handling bricks or the like including a hoisting frame to be separably connected to a hoisting apparatus such as a derrick and having a separable platform or skid upon which the bricks may be stacked or piled, whereby the bricks may be piled upon the platform at the kiln or other source and conveyed to their destination, for instance the building scaffold, without being dumped or individually handled during transit.

Another object is to provide a novel and improved apparatus for handling bricks comprising a system or plurality of similar tracks or runways at intermediate points in the route of transit, for instance between the kiln and freight cars, between the cars and the truck and between the truck and a building scaffold elevator, etc., a platform or skid upon which the bricks may be piled to commonly roll upon any and all of said tracks, and a hoisting frame to be connected to a hoisting apparatus such as a derrick and to separably receive said platform for hoisting the platform from one system of tracks to another, whereby a plurality of bricks may be transported without dumping or individual handling in transit.

A further object is to provide in such a device novel and improved means for separably connecting said platform to the hoisting frame.

Other objects are to provide novel and improved means for dumping the bricks from said platform when such is desired; to provide a device of the character described which is simple and inexpensive in construction and operation, and to obtain other results and advantages as may be brought out by the following description.

Referring to the accompanying drawings, in which like numerals of reference designate the same parts throughout the several views,

Figure 1 is a transverse vertical sectional view through a brick handling device embodying my invention, taken on the line 1—1 of Figure 2;

Figure 2 is a top plan view of the hoisting frame with the load supporting platform or skid detached;

Figure 3 is an end elevation of the device;

Figure 4 is a transverse vertical sectional view, taken on the line 4—4 of Figure 1;

Figure 5 is a detached perspective view of one of the parts of the separable connector for connecting the platform to the hoisting frame, and

Figure 6 is a similar view of the other part of the separable connector.

Specifically describing the present embodiment of the invention, the reference character A designates a substantially L-shaped hoisting frame having a load supporting portion 1 to receive a platform or skid B upon which is adapted to be placed the bricks or other articles to be handled. The load supporting portion 1 of the hoisting frame is preferably U-shaped in plan and includes spaced and parallel arms 2 connected by a base portion 3. Arranged at substantially right angles to the plane of the load supporting portion 1, is a shank 4 the free end of which extends inwardly over the load supporting portion, as indicated at 5, and is adapted to be connected by a clevis or other suitable connecting means 6 to a hoisting cable 7 of any suitable hoisting apparatus, such as a derrick.

The platform B may be of any suitable construction, but preferably comprises a pair of spaced and parallel cleats 8 to which are secured slats or planks 9, the cleats 8 being spaced apart a distance greater than the arms 2 of the hoisting frame so as to receive said arms between them. Preferably, angle irons 10 are secured to the adjacent sides of the cleats 8 and to the planks 9 to serve as bearings for the load supporting portion 1 of the hoisting frame.

In operation of the device so far described, the load, such as bricks, is piled upon the platform as indicated by dot and dash lines in Figure 1, the planks 9 being spaced from the floor or other support by the cleats 8. The load supporting portion 1 of the hoisting frame is then pushed beneath the platform, as shown in Figures 1 and 2, and the hoisting frame A elevated in any suitable manner as by a derrick whereby the platform and the load may be hoisted to the desired position. It will be understood that the shank 4 will be so related to the hoisting portion 1 of the hoisting frame as to maintain the platform in substantially horizontal position during the hoisting operation.

In accordance with the invention, means

is provided for forcing the hoisting frame into load supporting relation to the platform B by means of power, it being understood that the hoisting frame A is large and heavy due to the necessity for size and strength in supporting heavy loads, such as one thousand (1000) bricks. Accordingly, the hoisting frame is provided at the ends of the arms 2 with rollers 11 and is also provided with a caster 12 at the center of the base portion 3, said rollers and the caster permitting the hoisting frame to be easily rolled over a support and the caster serving to facilitate in steering the frame.

For forcing the hoisting frame beneath the platform by power, a sheave or pulley 13 is journaled upon a horizontal stub shaft 14 in the center of the base portion 3 of the hoisting frame, and a chain or other flexible connector 15 passes around said sheave with one end carrying a substantially T-shaped part 16 of a separable connector to cooperate with another part 17 secured to the platform B, the other end of the chain being adapted to be connected by any suitable means to a source of power such as the second line of a two-line derrick. The part 17 of the separable connector preferably includes a base 18 having a slot 19 key-hole shaped in cross-section, as clearly shown in Figure 5, while the connector part 16 preferably includes a head 20 to slidably fit the large portion of the slot 19, and a shank 21 which may project from the narrow portion of the slot 19. When it is desired to place the hoisting frame in load supporting position to a platform, the head 20 of the connector part 16 is slipped longitudinally into the slot 19, after which the chain 15 is tightened whereupon the hoisting frame is drawn beneath the platform, it being understood that the platform remains stationary due to its weight. With this construction, it will be observed that the platform is positively held against displacement from the load supporting portion 1 of the hoisting frame during the hoisting operation, but may be quickly disconnected from the hoisting frame by removal of the connector part 16 from the slot 19.

The chain 15 also serves for dumping the load from the platform 13 when such is desired. Dumping action may be accomplished by holding the hoisting cable 7 stationary and taking up on the chain 15, or by holding the chain 15 stationary and lowering on the hoisting cable 7, either of these actions resulting in a tipping of the hoisting frame which will dislodge the load from the platform. Preferably, one of the connector parts 17 is disposed at each side of the platform so that the hoisting frame may be placed in load supporting relation to the platform from either side thereof.

A hoisting device of the character described is particularly adaptable to the handling of large numbers of articles, such as bricks, at numerous times and at different points in a route of transit, without individual handling of the articles or dumping thereof. For instance, a system of tracks may be laid at convenient relations to a brick kiln or other source of articles to be transported, to receive a plurality of platforms B so that the platforms may be loaded at one position and moved along the tracks to another point where they are individually lifted from the tracks by the hoisting frame A. Such a system is schematically illustrated in Figure 3, where the tracks are shown as comprising channels 25 in which are arranged at closely spaced intervals rollers 26, and the platform is provided with angle irons 27 on the sides of the cleats 8 opposite the angle irons 10 to form bearings for the rollers 26. The system of tracks 25, 26 might run from the brick kiln to the railroad car loading station, and the platforms B rolled on the tracks from the kiln to the freight car. The platforms would then be elevated from the tracks and deposited in the freight car by the hoisting frame A and a derrick. Another system of tracks 25, 26 could be laid between the freight receiving station and for instance a warehouse. Similarly, other systems of tracks could be laid at numerous other points at which handling of the bricks is necessary, and it will be observed that the hoisting device including the particular hoisting frame and the platform in connection with such a system of tracks enables easy and quick handling of a large number of articles, such as bricks, at one time and without possibility of injury thereto by successive individual handling, dumping, etc.

While I have shown and described the hoisting device as embodying certain details of construction, it will be understood that this is mainly for the purpose of illustrating the principles of the invention and that many modifications and changes may be made in the details of construction without departing from the spirit or scope of the invention. Therefore, I do not desire to be understood as limiting myself except as required by the following claims when construed in the light of the prior art.

Having thus described the invention, what I claim is:

1. Apparatus for handling bricks comprising a platform to receive bricks in stacked relation, tracks for conducting said platform from place to place, hoisting mechanism including a substantially L-shaped frame one arm of which may be inserted beneath said platform, and means connected to the other arm of said frame for elevating the frame to raise said platform from or place it upon said tracks.

2. Apparatus for handling bricks comprising a pair of tracks, a platform to move upon said tracks from place to place and having a portion normally spaced from a floor or like support, hoisting mechanism including a substantially L-shaped frame one arm of which may be inserted beneath said platform while the latter is resting upon either a floor or the like or said tracks, said arm being formed to enter beneath said platform between said tracks, and means connected to the other arm of said frame for elevating the frame to raise said platform from or place it upon a floor or the like or said tracks.

3. A hoisting device comprising a load receiving platform having a portion normally in spaced relation to a support, a hoisting frame to be connected to a hoisting apparatus and having a load supporting portion to underlie said platform, and means on said hoisting frame to separably connect to said platform and be connected to a source of power for moving said frame relatively to said platform and force said load supporting portion beneath said platform.

4. A hoisting device comprising a load receiving platform having a portion normally in spaced relation to a support, a hoisting frame to be connected to a hoisting apparatus and having a load supporting portion to underlie said platform, a sheave journaled on said frame, and a chain or cable passing over said sheave with one end to separably connect to said platform.

5. The device set forth in claim 2 in which said hoisting frame is provided with rollers to roll on a floor or the like upon which the platform rests.

6. A hoisting device comprising a load receiving platform having a portion normally in spaced relation to a support, a hoisting frame to be connected to a hoisting apparatus and having a load supporting portion to underlie said platform, a sheave journaled on said frame, a chain or cable passing over said sheave, and cooperating members upon said platform and one end of said chain or cable to separably connect said chain to said platform.

7. The combination wtih a two-line hoisting apparatus, of a hoisting device comprising a load receiving platform, a substantially L-shaped hoisting frame having one arm to underlie said platform and the other arm connected to one line of said hoisting apparatus, a sheave journaled on said frame, and a cable or chain passing over said sheave with one end separably connected to said platform and the other end connected to the other line of said hoisting apparatus.

GEORGE H. STOVER.