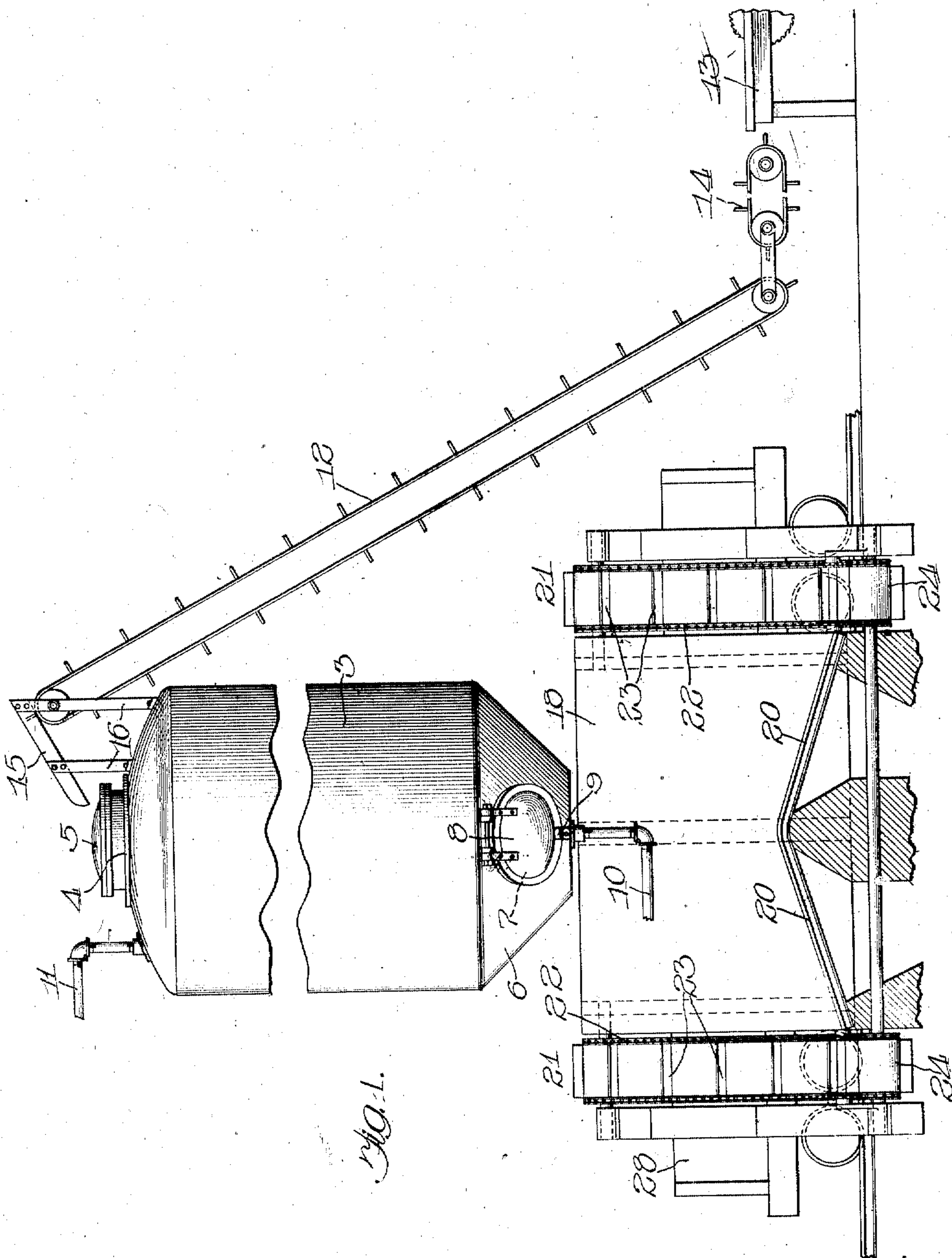


J. B. CARD & F. McARDLE.
 APPARATUS FOR TREATING WOODEN BLOCKS.
 APPLICATION FILED JAN. 2, 1909.

985,392.

Patented Feb. 28, 1911.

2 SHEETS-SHEET 1.



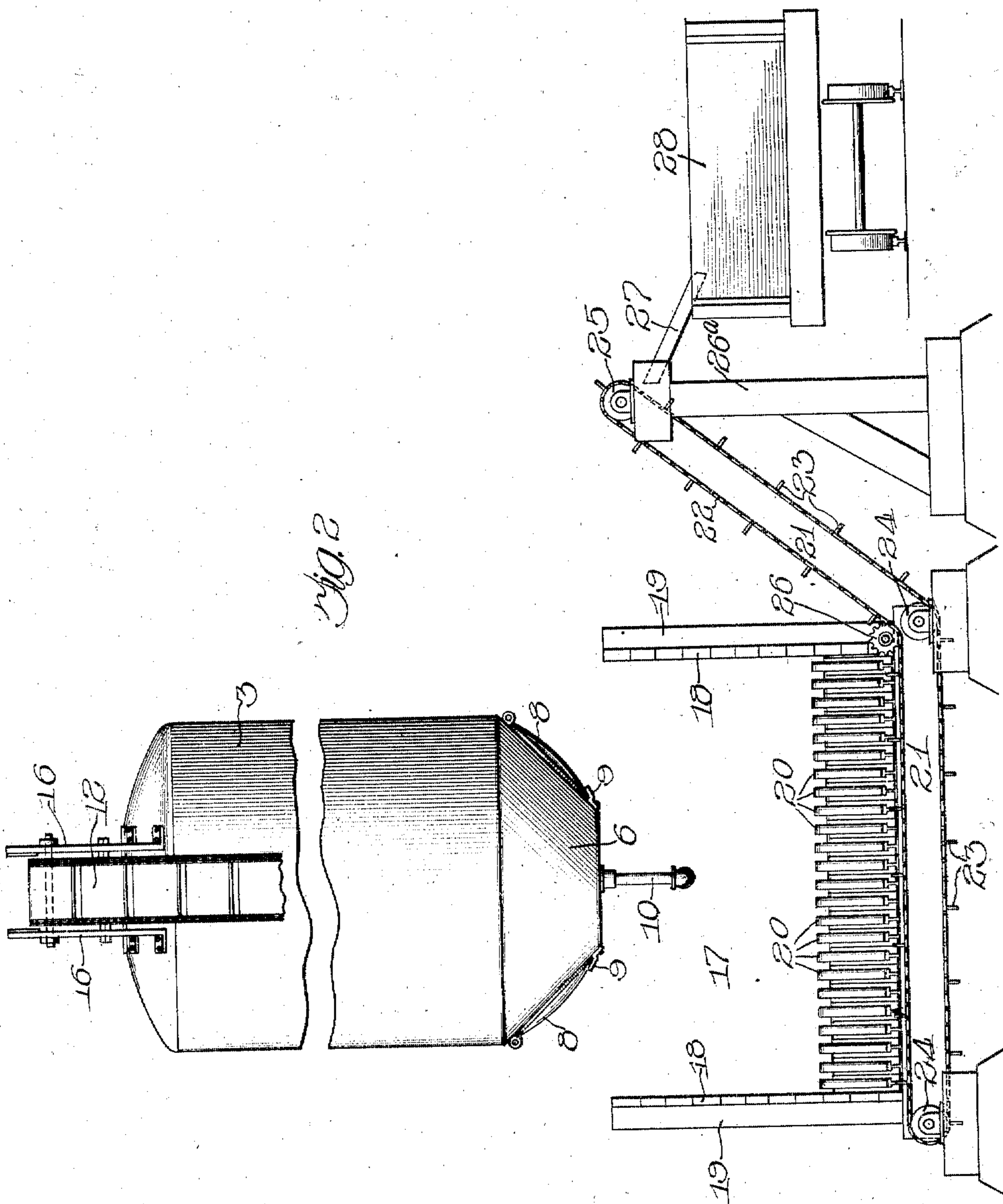
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UNITED STATES PATENT OFFICE.

JOSEPH B. CARD AND FRANK McARDLE, OF CHICAGO, ILLINOIS.

APPARATUS FOR TREATING WOODEN BLOCKS.

985,392.

Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed January 2, 1909. Serial No. 470,408.

To all whom it may concern:

Be it known that we, Joseph B. CARD and FRANK McARDLE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Treating Wooden Blocks, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to apparatus for treating wood and similar materials with preservative fluid, and its object is to provide a new and improved machine especially adapted for the treating of blocks, such as pavement blocks, and blocks of similar character, with preservative.

More particularly it is the object of our invention to provide a tank adapted for the treatment of wooden blocks and similar articles and mechanism connected therewith whereby the material to be treated may be fed into said tank at the top, discharged therefrom by gravity through the bottom and carried away without the necessity of loading such material upon cars or trucks, or similar conveyances, running the same into the treating tank and running them out after the material is treated.

In the accompanying drawings,—Figure 1 is an elevation, partly in section, showing the treating tank partly broken away; and Fig. 2 is another elevation, viewed from the right in Fig. 1, showing the treating tank partly broken away.

Referring to the drawings,—3 indicates a treating tank, which is provided with a receiving opening 4 at its top adapted to be closed tightly by a cover 5. The receiving tank 3 has a bottom 6 which is shaped like an inverted frustum of a cone and is provided with suitable discharge openings 7 which are provided with covers 8 which are preferably hinged and are adapted to be locked over the openings by a suitable lock 9 so as to be air and liquid tight, as is also the case with the cover 5. 10 indicates a pipe opening at the bottom of the treating tank 3, and 11 a pipe leading from its top. The pipes 10 and 11 are adapted to be connected with suitable pumps (not shown and of any well known form and description) by means of which steam may be blown through the tank, the air may be exhausted therefrom and preservative fluid of any well-known kind introduced into the tank,

put into pressure therein and removed therefrom when the treatment is over. As all these parts may be of any well-known form and description and form in themselves no part of my present invention, we have not illustrated and believe it is unnecessary to describe them more fully.

12 indicates a conveyer, which leads from any suitable source of supply, as, for instance, a sawing-table 13 and conveyer 14, to a discharge spout 15 supported on suitable supports 16 on the top of the tank and having its discharge end in registry with the opening 4 in the top of the tank. The function of this conveyer is to convey the material to be treated with preservative fluid, such, for instance, as paving blocks and similar blocks, from any suitable source of supply, as from the said sawing-table, to the top of the treating tank and deliver them into the same until the desired number of such wooden blocks are fed into the tank.

17 indicates a receiving frame, which is in the form of a box-like structure, which may be entirely open at its sides above the discharge guides, as illustrated in the drawings, so as to discharge the blocks upon the carrier hereinafter described. The frame is provided with sides 18 which may be formed of any suitable material, as by boards, fastened to uprights 19.

20 indicates guide-bars, which are located in the bottom of the receiving frame 17 and formed of iron bars, or any other suitable material, are sloped so as to direct the blocks discharged upon them from the treating tank for treatment toward the conveyers hereinafter described. Preferably, as shown in the drawings, these guide-bars are highest in the middle upon a line extending the length of the receiving frame at right angles to said bars and sloping downward and outward upon both sides of said central line extending to the open sides of the receiving frame.

21 indicates conveyers consisting of sprocket-chains 22 and conveying members 23 carried by said sprocket-chains. With the guide-bars 20 formed in the shape above described, these conveyers are, two in number, located one upon each open side of the machine. The conveyers 21 carried by guide-wheels 24—25 and a sprocket-wheel 26 which are driven in any well-known and approved manner extend horizontally the length of the series of guide-bars 20 and

then extending upward and outward to the top of standards 26^a are adapted to discharge the blocks received upon a discharge spout 27 to another suitable receiver such as a car 28.

The operation of the device is as follows:—The covers 8 being closed and the receiving opening 4 opened, the blocks or other similar wooden articles to be treated are carried by the conveyers 12 from the source of supply to the top of the treating chamber and delivered into said chamber until the chamber is filled to any desired extent. The cover 5 is then placed in position, closing the treating tank. The blocks are then treated by any well-known preservative process. We prefer to use the following process of treating, however. First through the pipe 10 steam from any suitable supply is forced through the chamber and out by means of the pipe 11. When the blocks have been sufficiently steamed the steam supply is shut off and the chamber is subjected to a partial vacuum by means of suitable pumps connected with said pipes in order to extract the air from the blocks. A suitable preservative fluid is then let into the tank until the tank is filled above the level of the contained blocks and the said fluid is put under pressure in said tank in any suitable manner until the blocks have become impregnated with the preserving liquid. The preserving liquid is then drawn off from the tank. When the blocks have been sufficiently treated by this or any other well-known process, the conveyers 21 are set in motion and the discharge covers 8 swung to open the discharge openings. The blocks thus treated fall through the openings into the receiving frame and falling upon the guides 20 are guided to the conveyers 21 to any suitable receiver. As has been said, the sides of the frame which lie over the outer ends of the guide-bars may be left entirely open. The sides 18, however, will prevent the blocks of wood as they are discharged from the treating tank from falling out at each end beyond the range of the guide-bars.

That which we claim as our invention, and desire to secure by Letters Patent, is:—

1. The combination with a receptacle having a discharge opening at its bottom, of conveyer mechanism adapted to convey material to be treated to and discharge the same into the top of said receptacle, a receiving frame below said receptacle, a conveyer upon each side of said receiving frame, and guide-bars mounted in said frame and slop-

ing downward at each side of their central longitudinal line toward said conveyers whereby material discharged from said receptacle will be guided by said guides upon said conveyers.

2. In an apparatus for treating wood and similar material, in combination a vertically-arranged treating-tank having receiving openings and discharge openings at its bottom adapted to be closed during the treating operation and to be opened for the reception and discharge of material, a receiving frame located below said tank, inclined guides on said receiving frame sloping downward and outward from a central position below said tank toward the sides of said receiving frame and adapted to receive material discharged from said tank and by the action of gravity guide it toward the edges of said frame, and conveyers upon the sides of said receiving frame in operative relation with the lower and outer ends of said guides.

3. In combination, a receptacle having a receiving opening and one or more discharge openings at the bottom adapted to be opened for the discharge of the contents of the receptacle, of a guide-frame located below said discharge openings and extending longitudinally some distance on both sides beyond the same, having its highest point below said discharge opening and sloping thence downward toward its outer edge, and a conveyer consisting of a horizontal portion extending longitudinally along the lower edge of said guide and thence upward therefrom.

4. In combination, a receptacle having a receiving opening and one or more discharge openings at the bottom adapted to be opened for the discharge of the contents of the receptacle, of a guide-frame located below said discharge openings and extending longitudinally beyond the same on each side, said guide-frame being highest along its central line below said openings and sloping thence downward to each side, and a conveyer located at the lower portion of said guide at each side thereof, each of said conveyers consisting of a substantially horizontal portion extending the length of the lower edge of said guide and of another portion extending upward therefrom.

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