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APPARATUS FOR HANDLING BRICKS AND PAVING BLOCKS OR STONES.

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1,239,879.

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Fig. 1.

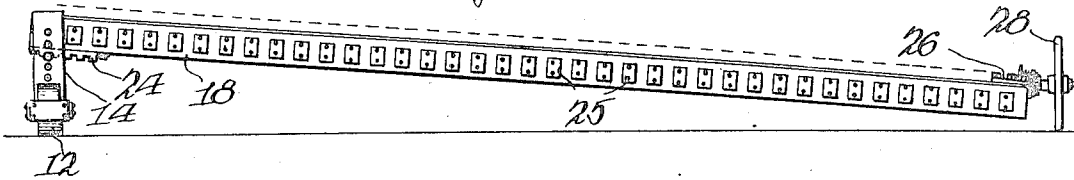


Fig. 2.

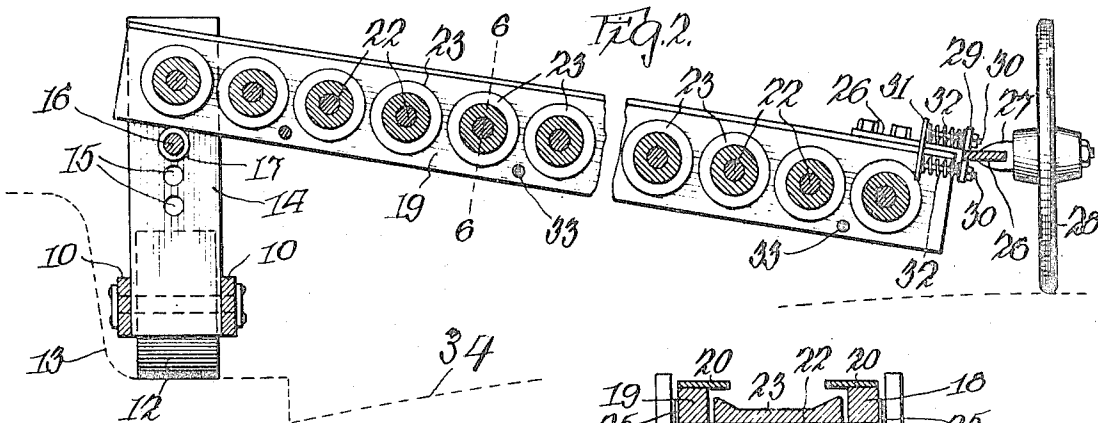


Fig. 3.

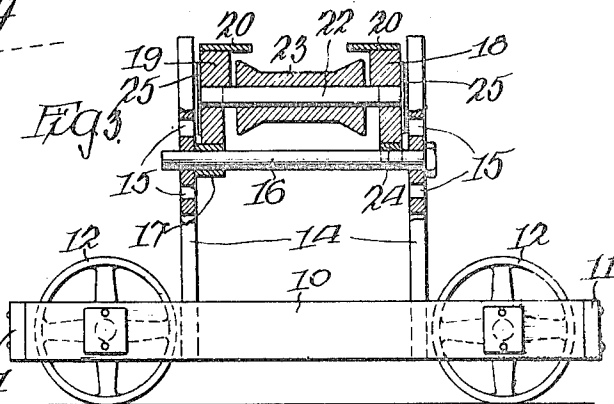


Fig. 4.

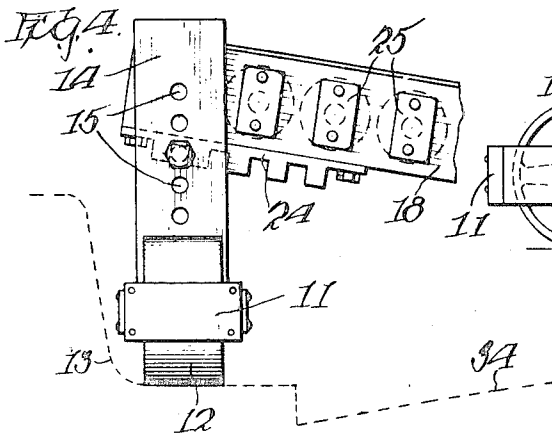


Fig. 6.

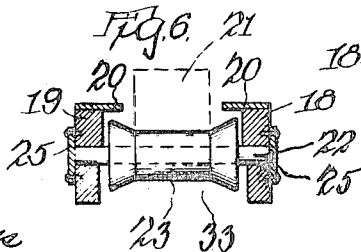
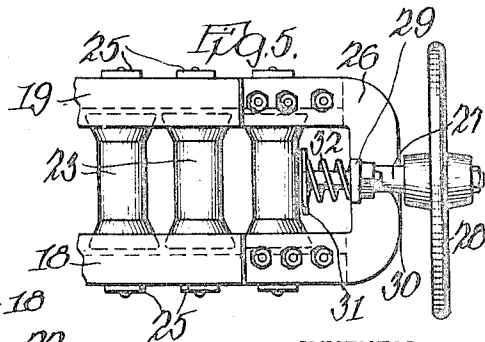


Fig. 5.



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APPARATUS FOR HANDLING BRICKS AND PAVING BLOCKS OR STONES.

1,239,879.

Specification of Letters Patent.

Patented Sept. 11, 1917.

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To all whom it may concern:

Be it known that I, OSCAR CARLSON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in an Apparatus for Handling Bricks and Paving Blocks or Stones, of which the following is a specification.

10 This invention relates to improvements in an apparatus to be used in the operation of paving or making streets and roads, and particularly for handling or conveying brick or paving blocks or stones for the surface
15 of the streets or roads, from piles, stacks or wagons located at or near the curbs of the streets, or sides of the roads, toward the middle or cross-wise thereof, in the desired quantities and at the proper time for laying
20 them, and it consists in certain peculiarities of the construction, novel arrangement and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

25 The principal object of the invention is to provide an apparatus of the above-named general character, which shall be simple and inexpensive in construction, strong, durable, and efficient and labor-saving in operation,
30 to the end that the brick or blocks may be automatically conveyed cross-wise or to the middle of the road, by the apparatus, after they have been placed thereon, thus obviating the necessity of manually carrying them.

35 Various other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In the accompanying drawing, which serves to illustrate an embodiment of the invention,
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Fig. 1, is a side view of the apparatus.

45 Fig. 2, is an enlarged longitudinal sectional view, showing the roller carrying frame shortened for the convenience of illustration and by dotted lines a fragment of the road or street bed and side or curb thereof.

50 Fig. 3, is a rear end view, partly in section and partly in elevation, showing the truck which carries the end of the frame adjacent to the curb of the street or side of the road.

55 Fig. 4, is an enlarged view in side elevation, of one end of the truck and a portion of the roller carrying frame.

Fig. 5, is a fragmental plan view of the

opposite end of the roller carrying frame, showing a wheel supporting the same, mounted thereon, and

Fig. 6, is a cross sectional view taken on line 6—6 of Fig. 2, looking in the direction indicated by the arrows.

Like numerals of reference, refer to corresponding parts, throughout the different views of the drawing.

65 The reference numeral 10, designates the parallel side pieces of the truck upon which one end of the roller carrying frame is mounted, and said pieces are transversely connected at their ends by bars or members 11, which securely hold the pieces 10, in parallelism with one another. Journaled between the pieces 10, near each of the ends thereof, is a wheel 12, which is adapted to travel in the gutter or road bed longitudinally near the side of the curb 13 thereof, as is clearly shown in Fig. 2, of the drawing.
70 Mounted between the side pieces 10 and between the wheels 12 thereon, are a pair of uprights 14, each of which is provided with a number of openings 15, for the reception of a rod 16, or shaft, employed for supporting the roller carrying frame. This rod has mounted thereon inwardly of one of the uprights 14, a roller 17 for the purpose
75 presently to be explained.

80 The roller carrying frame includes a pair of parallel side bars 18 and 19 which may be of any suitable size, length, and material, but by preference, sufficiently long to reach from the curb of a street of the ordinary width, or from the side of a road of the ordinary width to about the middle of the street or road bed. As is clearly shown in Fig. 6 of the drawing, each of the side bars 18 and 19 is provided at its upper edge with an inwardly extended over-hanging flange 20, the inner edges of which are spaced apart sufficiently to allow of the easy insertion of the bricks or blocks 21, one of which is illustrated by dotted lines in Fig. 6, of the drawing.
85 It will also be seen by reference to Figs. 3 and 6 of the drawing, that the bars 18 and 19 are reduced, or are of less thickness below the roller shafts than they are above said shafts. Transversely journaled in the bars 18 and 19 are a series of roller shafts 22, upon each of which is mounted a spool or roller 23, each of which has each of its ends inwardly tapered as is clearly shown in Figs. 3 and 6 of the drawing. The rollers or spools 23, are mounted on the shafts
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105
110

22, with a driving fit or so as to turn with said shafts, and as shown, are spaced apart at their ends a slight distance from the inner surfaces of the uprights 18 and 19 between
 5 which they are mounted so as to permit dirt or chips from the brick to pass between the ends of the rollers and said side bars, and to assist in the passage of said particles the lower portions of said side bars are made
 10 thinner than their upper portions, thus providing greater space for the passage of any particles that might get in between the ends of the rollers and the inner surfaces of the side bars 18 and 19 of the roller supporting
 15 frame. One of these side bars, usually the one indicated by the reference numeral 18 is provided at its lower edge near or at its rear end with a rack bar 24, to engage the supporting rod 16 near one of its ends. The
 20 other side bar or member 19 of the roller carrying frame rests on the roller 17, on the rod 16, as is clearly shown in Fig. 3, and it is obvious that by placing the rod 16 in openings 15 of the uprights 14, the rear
 25 portion of the roller carrying frame can be adjusted to the desired height, or to give the desired inclination to said frame. By referring to Fig. 3, it will be seen that the roller carrying frame is slightly spaced at
 30 its sides from the uprights 14 and that the ends of the shafts 22 are covered by plates 25 secured to the outer surfaces of the bars or members 18 and 19. Mounted on the front or discharging ends of the bars 18 and
 35 19, and constituting a portion of the roller carrying frame, is a forked member or casting 26 which has extended forwardly therefrom a stud shaft or axle 27 on which is mounted a wheel 28 used for supporting and
 40 moving the front or discharging end of the roller carrying frame. About midway between the prongs of the member or casting 26, and vertically mounted thereon, is an apertured plate 29, through which aper-
 45 tures, a pair of bolts 30, are extended. Mounted on the inner ends of the bolts 30 is a plate or buffer 31, against which the bricks or paving blocks will strike when they reach the front or discharging end of the roller
 50 carrying frame. A coil spring 32 surrounding each of the bolts 30 is interposed between the plates 31 and 29 so as to give resiliency to the plate or buffer. The side bars 18 and 19 may be connected at suitable points by
 55 means of tie-rods 33 which will assist in securely holding said bars.

The operation of the apparatus is simple and as follows:—

When it is desired to transfer bricks or
 60 paving blocks or stones, from the side of the road or curb of the street, to the middle or

cross-wise thereof, the truck is placed longitudinally with respect to the road or street so that its wheels 12, will be located at one side or near the curb of the road or street, 65 the bed of which is indicated by dotted lines at 34 in Figs. 2 and 4 of the drawing, when it is apparent that the roller carrying frame will extend transversely with respect to the road or street, and that the inner or 70 discharging end will be movably supported by means of the wheel 28, which wheel together with the truck will permit the apparatus to be moved as desired, or as will be necessary, as the operation of paving the 75 street or road requires. When thus located it is manifest that the bricks or blocks can be placed longitudinally between the flanges 20 of the roller carrying frame, when they will rest on the rollers 23, and by reason of 80 their weight will travel downwardly from the rear end of the said frame to its front end, from which point they may be removed for use in paving. By employing the buffer 31 at the discharging end of the apparatus it 85 is apparent that said buffer will yield sufficiently to prevent the bricks or blocks becoming chipped or marred when striking against each other.

As the roller carrying frame is loosely 90 mounted between the uprights 14 of the truck, or so as to allow of some lateral "play," it is apparent that should the wheel 28 be moved while the truck remains stationary, the roller 17 on the shaft 16 will 95 permit one side of the said frame to move while the other side of the frame will be held on the shaft 16, by means of the rack 24, and that thus the up-setting of the truck will be prevented. 100

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

In an apparatus of the character described, the combination with a truck hav- 105 ing a pair of spaced apart uprights provided with holes one above the other, a shaft mounted transversely on said uprights in a pair of the holes, a frame including a pair of parallel bars loosely mounted near 110 one of its ends on said shaft between said uprights, a rack bar on one of the said parallel bars to engage said shaft, a roller on said shaft to support the other parallel bar, a wheel journaled on the opposite end of said 115 frame, and a series of rollers mounted transversely on said frame and side by side in parallelism with one another.

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Witnesses:

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