My invention relates generally to apparatus for receiving particles or material in a pourable semi-fluid state, such as concrete mix, from a source such as a truck or concrete mixer, and conveying the material to a selected point elevated above the source or otherwise out of reach of said source, the primary object of my invention being to provide apparatus of this character which can be readily moved from place to place and adjusted to deliver the material to points of different elevation and/or distance from said source.

Another important object of my invention is to provide apparatus of the character indicated especially adapted to handle concrete mix for building operations which comprises a readily portable unit comprising a suitable flat bed truck which can be towed or moved under its own power from one job to another or from place to place on the same job as required, the truck bed having rising thereon a suitable framework providing rotary and pivotal support for a boom thereby carried on the truck, along which boom a conveyor bucket is operable by cable operated by a cable drum on the truck, the boom having depending therefrom an adjustable brace frame which can reach the ground to provide support for the overhanging part of the boom.

Another important object of my invention is to provide apparatus of the character indicated above which is unusually simple and lightweight in construction while being amply rugged for the use for which it is intended and capable of being manufactured at sufficiently low cost to warrant its general adoption.

Other important objects and advantages of my invention will appear from a reading of the following description and appended drawings, wherein for illustration only a presently preferred embodiment of my invention is set forth in detail.

In the drawings:
Figure 1 is a general side or end elevation showing said embodiment set up for use in one of its several possible positions.
Figure 2 is a fragmentary transverse section on an enlarged scale taken through the boom, the bucket, and a delivery chute, showing the bucket opening trip lever about to strike the trip bar adjacent to the chute.
Figure 3 is a substantially horizontal section on a similarly enlarged scale taken on the line 3—3 of Figure 2.
Figure 4 is a fragmentary side elevation on an enlarged scale of the lower end of the boom, showing the mounting of the boom on the truck, and
Figure 5 is a fragmentary bottom plan view on an enlarged scale of the upper end of the boom, showing the disposition of the cable pulleys thereon.

Referring in detail to the drawing, the numeral 6 generally designates the truck upon which the other components of the device of the invention are mounted during their employment and for movement from one place to another, the truck having a flat bed 7 on which is fastened a tripod or other suitable frame 8 anchoring and supporting the standard 9 having a tubular upper part having a heavy bearing flange 10 on its upper end.

Rotatably telescoped into the standard 9 is a short plow-like upright 11 which has a heavy bearing flange 12 which turnably bears upon the flange 10 so that the upright 11 can turn in the standard 9.

The upper part of the upright 11 carries a heavy cross bar or rod 13 having a head 14 on one end and a nut 15 on the other end. The rod traverses the feet 16 on the lower ends of the side members 17 of the boom 18. Diagonal braces 19 may be provided between the rod 13 and the upright 11.

The boom 18 comprises two outturned channel side members 19 which are braced and connected at intervals of their length by bars 20 forming an open lattice, and further braced and connected by bolts or rods 21 located at the level of at least one and permissibly several delivery chutes 22, which when in use extend at desired angles from the back of the boom and are braced by detachable links 23 hooked or bolted to the boom above the chutes.

In use the lower end of the boom 18 may rest upon the ground 24, as shown in Figure 1, and be held in this position by suitable overbalancing means, such as links connected to the truck bed 7.

Additional support for the overhanging part of the boom 18 in the illustrated position or in other more tilted positions thereof is provided by the brace frame 25 which is pivotally connected at its upper end to the upper part of the boom at 26 and depends to within reach of the ground 24 at the side of the truck 6. The brace frame has adjustable jack feet 27, preferably operated by handles 28 for engaging the ground.

The upper flanges 29 of the boom side members 19 have secured thereto, as shown in Figure 3, reversed angle iron 30, which with the flanges 29 define channel tracks for the bucket rollers 31, of which there are two on each end of the bucket 32, one above the other, and mounted on the outer ends of axles 33 which pass through lugs 34 on the boom side of the bucket, with collars 35 fixed on the axles and engaging the inner sides of the lugs to prevent sideworking of the bucket 32.

The bucket 32 is inverted V-shaped, the rear wall 36 carrying the axles 33, with the front wall 37 having at its lower end the fixed trip lever 38
which has a part extending between the boom side members at right angles thereto and terminating in a finger arranged to operate

suitably angulated plates on the boom side members, between which the bucket can pass, are provided on the boom side members at each chute to guide the material from the bucket into the adjacent end of the chute when the bottom of the bucket is opened.

The bottom of the bucket is constituted by a pair of bent plate-like elements which are hinged at the outside of the front and back of the bucket and which when together provide an impervious closure holding the contents of the bucket in place, as shown in Figure 2.

Lugs on the lower part of the elements carry pivots on which are connected the lower ends of levers supported in framework on the upper end of the boom, and which downwardly and forwardly the bucket adjacent to the trip rod for conveying the contents of the bucket to the desired place as the bucket bottom opens, and a brace member depending from the upper part of the boom for engaging the ground at said opposite side of the truck for supporting the boom at the selected angle.

2. Mobile apparatus of the character described, comprising a wheeled platform, a standard rising therefrom, an inclined boom pivoted intermediate on said standard for movement on horizontal and vertical axes, said boom comprising a pair of laterally spaced lattice connected side members each comprising a wheel track, a bucket having wheels on its opposite ends rotatably engaging the wheel tracks to suspend the bucket between said side members; said bucket comprising an openable bottom including a trip lever, a cable drum on said platform having a cable wound thereon, a sheave at the upper end of the boom over which the cable is trained from said drum and attached to said bucket whereby the bucket can be raised or lowered along the boom, a declining delivery adjustable chute on the boom extending from the back thereof to the place of delivery of the contents of the bucket, a trip rod on the boom adjacent to said chute to be operatively engaged by said trip lever as the bucket rises in the region of the chute so as to open the bucket bottom and discharge the contents thereof into the chute, said openable bucket bottom comprising a pair of elements hinged on the opposite sides of the bucket and on one of which said trip lever is mounted, a pair of levers pivoted at their lower ends to said elements and pivoted together at their upper ends, and a contractile spring stretched between the upper ends of the levers and an elevated part of an end of the bucket whereby the said bucket forming elements are forcibly closed whenever said trip lever is disengaged from said trip rod.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>592,650</td>
<td>Kendall</td>
<td>Oct. 26, 1897</td>
</tr>
<tr>
<td>854,920</td>
<td>Allen</td>
<td>May 28, 1907</td>
</tr>
<tr>
<td>892,914</td>
<td>Sweeney</td>
<td>July 7, 1906</td>
</tr>
<tr>
<td>2,196,634</td>
<td>Kuerz</td>
<td>Apr. 9, 1940</td>
</tr>
<tr>
<td>2,333,042</td>
<td>Richardson</td>
<td>Oct. 26, 1943</td>
</tr>
</tbody>
</table>