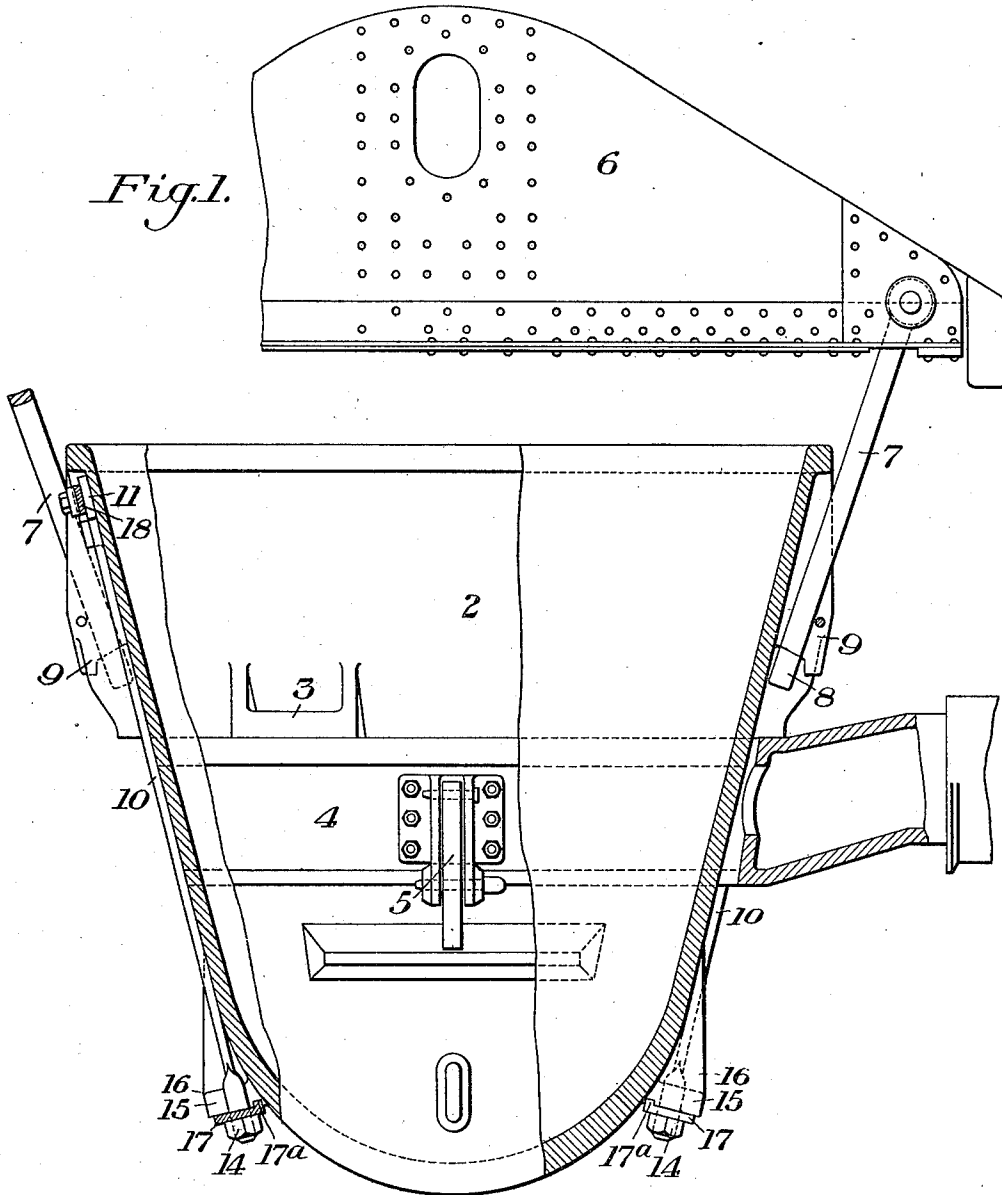


E. C. SHERMAN.  
CINDER CAR AND THE LIKE.  
APPLICATION FILED MAR. 31, 1911.

997,639.

Patented July 11, 1911.

2 SHEETS—SHEET 1.



WITNESSES

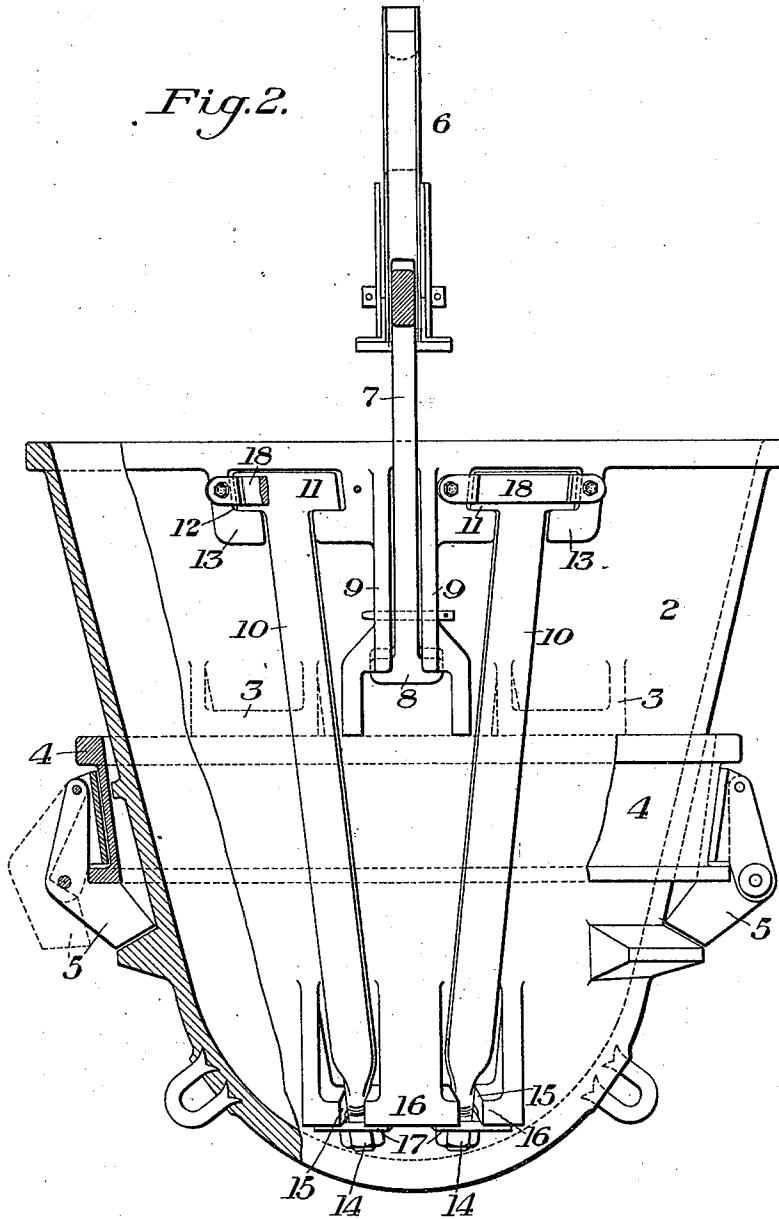
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997,639.

2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

ERWIN C. SHERMAN, OF YOUNGSTOWN, OHIO, ASSIGNOR TO THE WILLIAM B. POLLOCK COMPANY, OF YOUNGSTOWN, OHIO, A CORPORATION OF OHIO.

CINDER-CAR AND THE LIKE.

Specification of Letters Patent.

Patented July 11, 1911.

997,639.

Application filed March 31, 1911. Serial No. 618,223.

*To all whom it may concern:*

Be it known that I, ERWIN C. SHERMAN, of Youngstown, Mahoning county, Ohio, have invented a new and useful Improvement in Cinder-Cars and the Like, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of a pot embodying my invention, and also showing a portion of a pot-lifting mechanism in side elevation, and Fig. 2 is an elevation, partly in section, at right angles to Fig. 1.

My invention has relation to certain new and useful improvements in pots for holding material of various kinds, and which are required to be lifted, and in which the material composing the pot is not of such character as to make its handling safe. It is more particularly useful in connection with pots for holding cinder from open hearth steel furnaces, which must often be lifted when full of hot cinder. These pots are usually made of cast iron, and the heat to which they are subjected frequently causes them to crack, and thus become weakened. My invention is designed to provide reinforcing means which will transfer the lifting strains to the lower portion of the pot, and thus prevent accident in case of breakage of the pot.

In the accompanying drawings, the numeral 2 designates a cinder pot, which is in general of any usual or suitable character, and which has the brackets 3, by means of which it is supported on the usual trunnion ring 4.

5 designate suitable pot locking devices or dogs.

6 designates a lifting beam having depending lifting hooks, one of which is shown at 7, and which have headed lower ends 8 adapted for engagement with the slotted lifting lugs 9 on opposite sides of the pot.

10 designate two straps or tension members, having T-heads 11 at their upper ends, which seat in T-shaped slots 12 formed in lugs 13 on the sides of the pot near its upper edge. The lower ends of the members 10 are preferably made of cylindrical form, and are threaded to receive the nuts 14. The threaded end portions of the rod engage slots 15 in lugs 16 on the lower

portion of the pot. The nuts 14 are screwed on the threaded ends of the members at the under side of the lugs and upwardly against washers 17. These washers are preferably provided with the upward projections 17<sup>a</sup>, which fit corresponding recesses in the lugs 16, and thus prevent the members 10 from being disengaged by lateral movement. The upper headed ends of the members 10 are likewise secured against lateral disengagement by the straps 18. Two of the straps 10 are preferably arranged at each side of the pot, one at each side of the lifting lugs 9, and these lifting lugs are preferably integral with the lugs 13, in which the headed upper ends of the straps are seated. These straps or tie members extend across the portion of the pot where the cracks are most likely to occur, and serve to transfer the lifting strain to the lower portion of the pot and below the point where cracks usually develop. The straps or tension members 10 may be of a metal of greater tensile strength than the material of which the pot is composed; and can be put under any desired degree of tension by screwing up the nuts 14, thus putting the material of the pot from the top to the bottom, under a compression stress. The lifting members or hangers 7, being inclined, engage the lifting lugs 9 close to the pot and thus relieve the tendency to distort the shape of the pot in lifting. The straps or tie members may be arranged in various ways, and I do not wish to limit myself to the particular construction and arrangement shown.

What I claim is:—

1. A pot of the character described, having a separate reinforcing bar extending from a point near the top of the pot to a point near the bottom, and means for securing both ends of said bar to the pot; substantially as described. 95

2. A pot of the character described, having exteriorly arranged tension members or straps extending from and secured to points near the top of the pot to points near its bottom, and tensioning means for said members or straps; substantially as described. 100

3. A pot of the character described, having a separate reinforcing bar extending from a point near the top of the pot to a point near the bottom, and means for securing both ends of said bar to the pot, to— 105

gether with means for putting said bar in tension and the material of the pot between its top and bottom in compression; substantially as described.

- 5 4. A pot of the character described, having a reinforcing member arranged to hold the material of the pot from its upper to its lower portion, under compression; substantially as described.
- 10 5. A pot of the character described, having a reinforcing member arranged to hold the material of the pot from its upper to its lower portion, under compression, the pot also having lifting projections, and lifting means engaging the said projections close to the shell of the pot and extending upwardly in oblique lines; substantially as described.
- 15 6. A pot of the character described, having a reinforcing member arranged to hold the material of the pot from its upper to its lower portion, under compression, the pot also having slotted lifting projections, and lifting members or hangers passing obliquely downward through the slots of said

projections, and having a lifting engagement therewith at their lower ends; substantially as described.

7. A pot of the character described, having a tension member connecting its upper and lower portions, said member being threaded at one end and having a head at the opposite end, and the pot having seating means near its top and bottom for the said member; substantially as described. 30
8. A pot of the character described, having exteriorly arranged tension members or straps extending from and secured to points near the top of the pot to points near its bottom, and tensioning means for said members or straps, said members being arranged in pairs, and the pot having lifting means between the pairs of members; substantially as described. 35

In testimony whereof, I have hereunto set my hand. 40 45

ERWIN C. SHERMAN.

Witnesses:

H. C. DITMANSEN,  
A. M. GALVIN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."