(No Model.)

C. CARLSON.

MORTAR HOD.

No. 456,504. Patented July 21, 1891.

Fig-1-

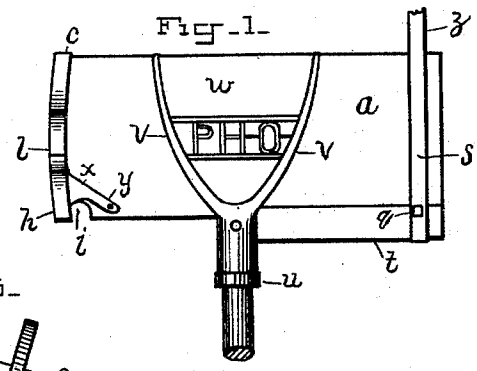


Fig-4-

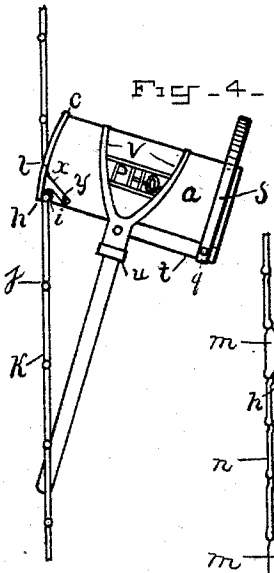


Fig-5-

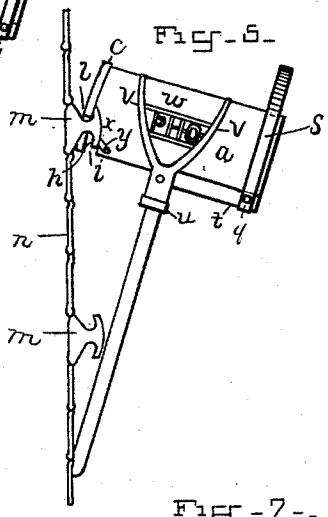


Fig-2-

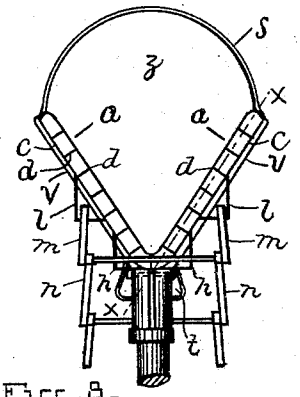


Fig-7-

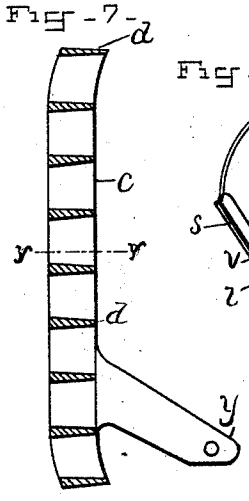


Fig-8-

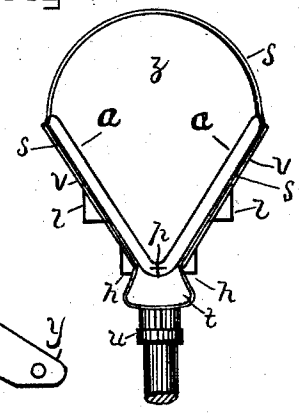


Fig-6-

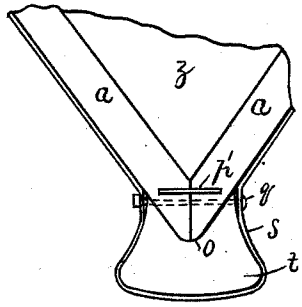
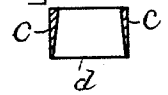


Fig-8-



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UNITED STATES PATENT OFFICE.

CONRAD CARLSON, OF BROOKLYN, NEW YORK.

MORTAR-HOD.

SPECIFICATION forming part of Letters Patent No. 456,504, dated July 21, 1891.

Application filed November 18, 1890. Serial No. 371,868. (No model.)

To all whom it may concern:

Be it known that I, CONRAD CARLSON, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Mortar-Hods, of which the following is a specification.

My invention consists in the construction of hods for carrying mortar and bricks, the objects of which are to protect the open end from battering up and splitting by the concussions to which it is subject in dumping the contents; also, to prevent the sides from warping through the effects of the inside exposed to wet and the outside being dry; also, to prevent leaking through the bottom joint; also, to provide better means of suspending them on the elevator-chains, and also to provide strengthening-stays of the side bars of the handle-socket in an arrangement affording simple and ineffaceable distinguishing marks of ownership for protection against piracy, which is very common among the users of hods, all as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of my improved hod. Fig. 2 is an elevation of the open end. Fig. 3 is an elevation of the closed end. Fig. 4 is a side elevation of the hod hanging on the so-called "ladder-chain elevator" by the contrivance which I provide for the purpose. Fig. 5 is a side elevation of said hod hung on the so-called "hod-elevator chain" of a different construction by another contrivance which I also provide for such elevators. Fig. 6 is an elevation of part of the closed end, on an enlarged scale, to illustrate more fully the contrivance for preventing the joint of the two sides from leaking. Fig. 7 is a sectional elevation of part of the skeleton frame for protecting the sides from battering up and from warping, taken on line $x\ x$ of Fig. 2 and drawn to a larger scale. Fig. 8 is a transverse section of part of said frame on line $y\ y$, Fig. 7.

For the protection of the sides a of the hod at its open end both from battering and warping I provide the V-shaped skeleton frame of malleable iron, consisting of two parallel side bars c, located about the thickness of the sides a apart, or a little less, and joined together at the ends and at suitable intervals along them by the cross-webs d, both the bars and the cross-webs being wedge-shaped in cross-section, as shown in Figs. 7 and 8, and drive it onto said ends of the sides, forcing the webs d into the wood, and thus provide substantial iron-clad ends of great durability in resisting the shocks to which the hods are exposed when said ends are let fall on the mortar-board or the edge of a plank in discharging the contents. This frame is very rigid transversely and effectually prevents the sides from warping by the effects of the wet mortar on the inside, while remaining dry outside. I construct it with the laterally-projecting angle-ears h, one on each side, flush with the lower end, and make the notch i in the wood behind them, and thus provide for hooking the hod onto the rungs j of the ladder-chain k at two points sufficiently distant from each other to prevent the hod from swinging sidewise and sometimes wrenching off, to which it is subject as commonly made, with only one hook at the center for so hooking on the rungs. I also construct it with other laterally-projecting ears l farther up the sides of the frame (where pins have commonly been fastened to the sides a of the hod) for lodging in the hook-links m of another form of elevator-chain, as n, frequently used. The advantages of this arrangement are the simpler method of providing these ears, which are cast together with the frame, and they are more substantial, and I also construct said frame with an integral arm x, extending from each outside bar c backward and obliquely downward along and so as to have bearing contact with the sides c to a suitable distance back of the end and near the lower edge to receive a fastening-bolt y to prevent the frame from being thrust off by the shocks.

I make the joint o between the two sides a by beveling them so as to meet in a vertical line and saw a kerf at right angles thereto in each edge and insert a thin metal strip p, extending from end to end, which makes a water-tight joint and prevents leaking onto the shoulder of the carrier. At the rear end I apply an endless band of iron s, extending all around, including head z, and insert the bolt q to bind all the parts together. The V frame secures

said joint at the open end. It will be seen that with the ends of the two sides bound together by the frame and band, and the packing-strip fitted in the kerfs of the meeting edges the nailing of the edges is not required, for although the joint may open slightly by the effect of wetting and drying it will not leak in consequence of the packing-strip. By dispensing with the nails much splitting caused by them is avoided.

Besides packing the joint tight the metal strip *p* affords a material protection against a common practice among hod-carriers of appropriating to themselves the hods of hod-elevating companies, which are longer than the hods that are to be carried up, and disguising them by sawing them short.

At the present time hods having a metallic socket *u* for the handle have the plain branches *v* extending up the sides *c* without a cross-stay between them, which, though not a very essential requirement, is useful for greater strength; but besides the application of such a stay for greater strength I propose to utilize it also for a distinguishing owner's mark by constructing it in the form of initial letters, as *w*, or any other distinctive mark, made integral with the branches, so that it cannot be effaced without showing the mutilation incident to its removal.

The common practice of marking is by branding the sides; but the brands can be readily scraped out so as to leave no sign.

I claim as my invention—

1. The combination, with the sides of a mortar-hod, of the V-shaped metallic re-enforcing and stiffening frame consisting of side bars and integral cross-webs driven on the ends of the sides, substantially as described.

2. The combination, with the sides of a mortar-hod, of the V-shaped metallic re-enforcing and stiffening frame consisting of side bars and integral cross-webs driven on the ends of the sides, and the laterally-projecting integral arms of said frame for hooking on the elevating-chains, substantially as described.

3. The combination, with the sides of a mortar-hod, of the V-shaped metallic re-enforcing and stiffening frame consisting of side bars and integral cross-webs driven on the ends of the sides, and the laterally-projecting integral ears of the side frame, flush with the lower end of said frame, for hooking on the elevator-chain, said hod having the notch in the bottom behind said frame, substantially as described.

4. The combination, with the sides of a mortar-hod, of the V-shaped metallic re-enforcing and stiffening frame consisting of side bars and integral cross-webs driven on the ends of the sides and the rearwardly-extended arms along the sides *a* and bolted thereto, substantially as described.

5. The combination, with the sides *a*, having the beveled and kerfed meeting lower edges, of the flat metal packing-strip inserted in said kerf, the V-frame fastening the sides together at the front end, and the metal band and bolt binding said sides and the head together at the rear end, all substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 31st day of October, 1890.

CONRAD CARLSON.

Witnesses:
W. J. MORGAN,
W. B. EARLL.