No. 737,449. PATENTED AUG. 25, 1903.

G. McELHANY.

BUCKET.

APPLICATION FILED MAR. 18, 1903.

NO MODEL.

Fig. 1.

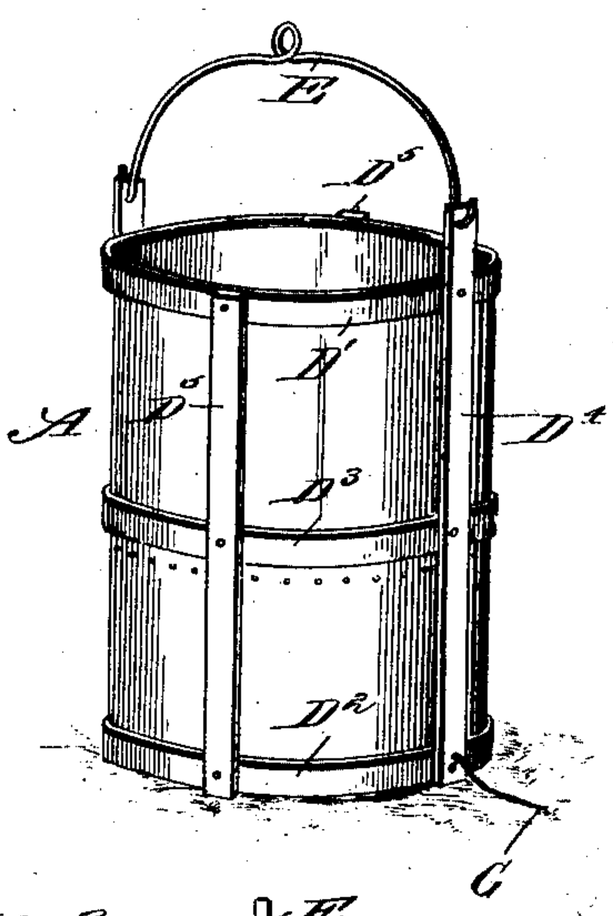


Fig. 2.

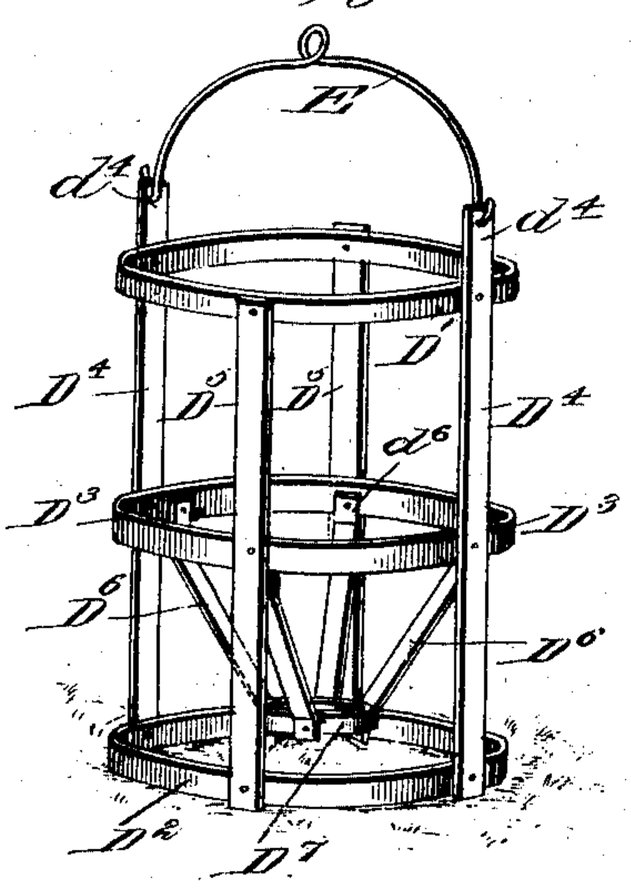


Fig. 3.

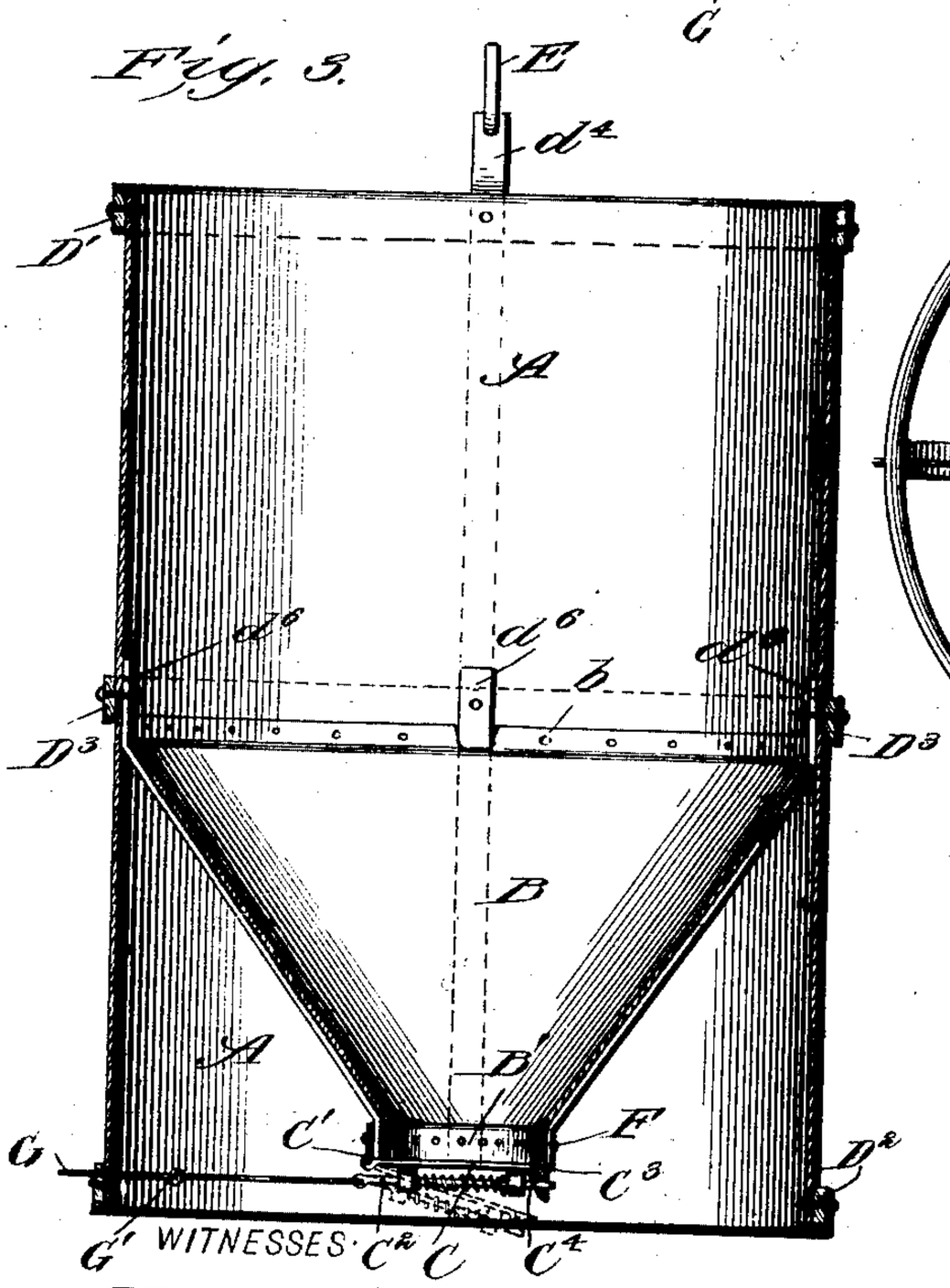


Fig. 4.

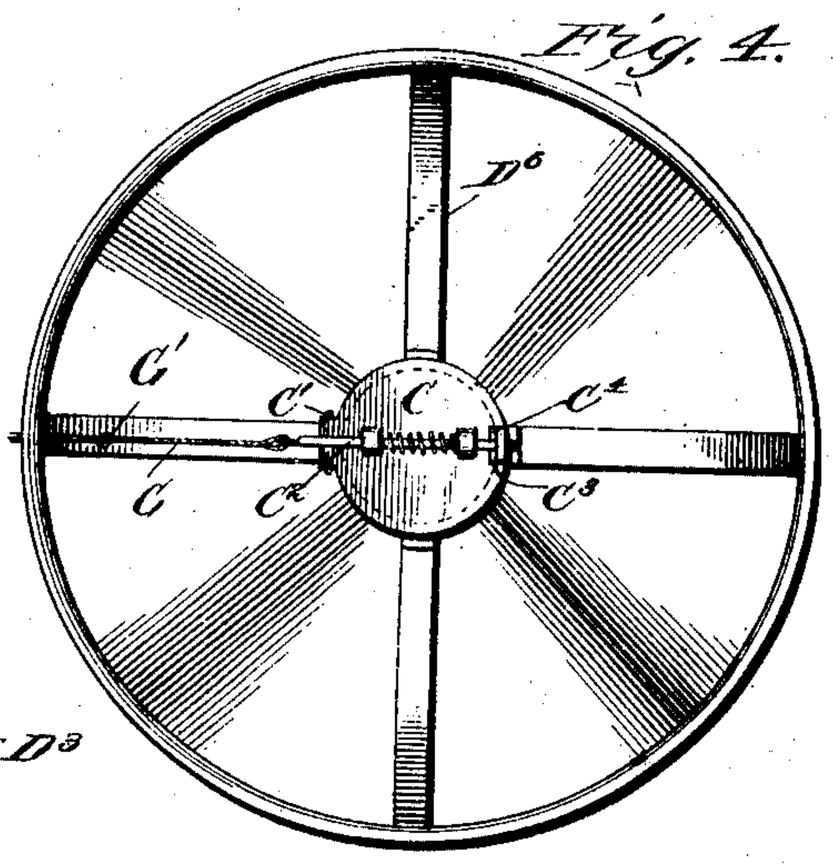
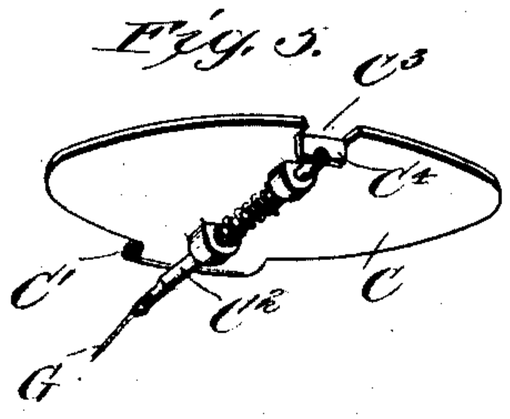


Fig. 5.



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No. 737,449. Patented August 25, 1903.

UNITED STATES PATENT OFFICE.

GRANT McELHANY, OF WATERTOWN, SOUTH DAKOTA.

BUCKET.

SPECIFICATION forming part of Letters Patent No. 737,449, dated August 25, 1903.

Application filed March 18, 1903. Serial No. 148,382. (No model.)

To all whom it may concern:

Be it known that I, GRANT MCELHANY, a citizen of the United States, residing at Watertown, in the county of Codington and State of South Dakota, have made certain new and useful Improvements in Buckets, of which the following is a specification.

My invention is an improvement in buckets, and especially in buckets designed for use in elevating grain and the like; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a bucket embodying my invention. Fig. 2 is a detail perspective view of the harness or brace frame of the bucket. Fig. 3 is a vertical section of the bucket. Fig. 4 is a bottom plan view of the bucket, and Fig. 5 is a detail perspective view of the door.

My bucket is especially designed for use in elevating grain where it is desired to raise grain for filling bins from an upper floor. It becomes desirable in such connection to provide a bucket of large capacity which will be of sufficient strength to sustain the weight and stand hard usage and which will be provided with a dumping-door arranged to be released by a tripping-rope, so its contents can be discharged by the operator standing at a distance. The bucket, as shown, comprises the main or outer casing A, the inner or funnel-shape casing B, and the bracing-frame, together with the dumping bottom or door C. The casing A is cylindrical in form and extends below the funnel B, so it will protect the latter at all times.

The bracing-frame or harness D is best shown in Fig. 2, and consists of the upper and lower rings D′ and D^2, the intermediate ring D^3, the upright rods D^4 and D^5, the downwardly-converging rods D^6, and the door-ring D^7, secured to and between the inner lower ends of the downwardly-converging bars D^6. At their upper ends the bars D^6 are secured to the inner side of the central ring D^3 at points opposite their respective upright bars D^4 or D^5, the whole constituting a strong bracing-frame for both the casing and the funnel, as will be understood from Figs. 1 to 4 of the drawings.

The casing A fits within the rings D′, D^2, and D^3 and is suitably riveted thereto. The upper ends of the bars D^6 project at d^6 above the funnel B and within the casing A, as best shown in Fig. 3, the funnel B being fitted within the cone-shaped basket formed by the bars D^6 and being riveted at its upper end at *b* to the casing A, adjacent to the ring D^3, and at its lower end to the door-ring D^7, within which the cylindrical nipple B′ at the lower end of the funnel B fits, as best shown in Fig. 3 of the drawings. The bars D^4 project at d^4 above the top ring D′ and afford connection for the bail E, as shown in Figs. 1 and 2.

The door C is hinged at C′ at the lower end of the funnel B and is provided with a spring-actuated sliding bolt C^2 for engagement with a depending lug F at the side of the ring D^7, opposite the hinge C′, the swinging edge of the door C being notched at C^3 to fit the lug F and the plate or wing C^4, formed by notching the door C, being turned down to afford a guide for the bolt C^2, as shown in Fig. 5 of the drawings. The bolt C has connected with it the rope G, which leads from the bolt through the casing A to convenient reach of the operator, so he can pull upon the rope or cord G to release the bolt and permit the door to open and the contents of the bucket to discharge. The rope G has a knot G′ to prevent the rope from pulling on the door after the bolt has been released.

By the described construction it will be seen I provide a bucket which will be strong and serviceable, as the casing is reinforced by the bars D^4 and D^5, and the upper, lower, and intermediate rings and the funnel-shape bottom is supported and reinforced by the frame therefor, consisting of the downwardly-converging bars D^6, supported from the bracing-frame of the casing and carrying at their lower ends the door-ring, which reinforces the discharge-orifice of the funnel-shape bottom and furnishes a strong support for the door and its latching devices.

In practice it is designed to make the buckets to hold from ten to twenty bushels and to rig them on a hoist, one horse being ordinarily able to handle about ten bushels and two horses twenty bushels. The bucket may be placed on the ground and filled with the grain and then drawn by the team to the proper height and carried along to the dumping-point,

and the operator by drawing on the check-rope can open the door in the bottom of the bucket, letting the grain discharge.

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

1. The improvement in buckets herein described, comprising the bracing or harness-frame consisting of the upper, lower and intermediate rings, the upright bars extending outside of and secured to said rings, the downwardly-converging bars secured at their upper ends to and within the intermediate ring, the door-ring secured to the lower inner ends of the converging bars, the casing secured within the upper, lower and intermediate rings, the funnel-shape bottom supported by the converging bars and secured at its upper end within the casing and at its lower end within the door-ring, the door for closing the lower discharge end of the funnel, the spring-actuated bolt for securing the door in its closed position, and the rope by which to release the said bolt, substantially as and for the purposes set forth.

2. A bucket substantially as described, comprising the outer casing, a bracing-frame therefor, an inner bracing-frame within the casing and diverging downwardly, the funnel-shape bottom supported by said converging frame, and the door for closing the discharge of said bottom substantially as set forth.

3. A bucket comprising the casing, the harness or bracing frame fitting around and secured to the casing and extending to the lower edge thereof and the funnel-shape bottom within the casing and terminating at its lower end above the lower end of the casing substantially as set forth.

4. The combination of the casing, the bracing-frame fitting around and secured to same, the funnel-shape bottom within the casing and the bracing-frame supporting said bottom and secured to the frame of the casing substantially as set forth.

5. The combination of the upper, lower and intermediate rings, the bars D^4 and D^5 extending between and secured to said rings, the bars D^4 being projected above the upper ring to afford connection for the bail, the bail, the downwardly-converging bars D^6 secured at their upper ends to the intermediate ring, the door-ring carried by the lower ends of the bars D^6, the casing, the funnel-shape bottom, and the door all substantially as and for the purposes set forth.

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Witnesses:
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