H. PHILLIPS.

COAL CONTAINING BUCKET FOR COAL BARGES.

APPLICATION FILED FEB. 11, 1916.

1,207,208.

Patented Dec. 5, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

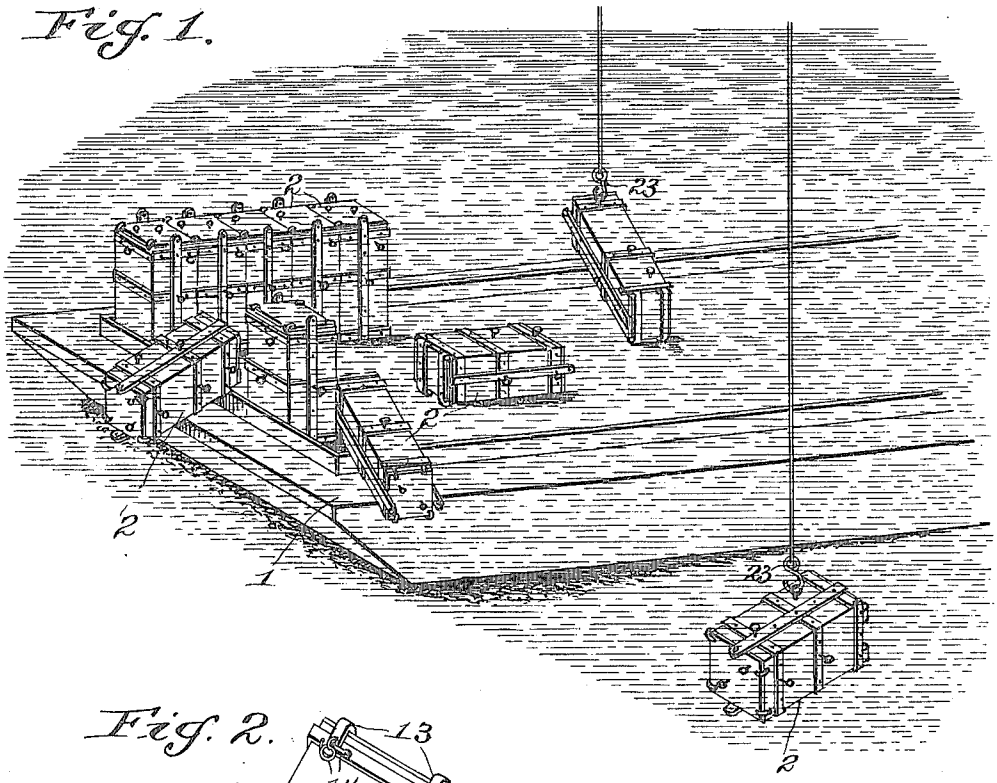
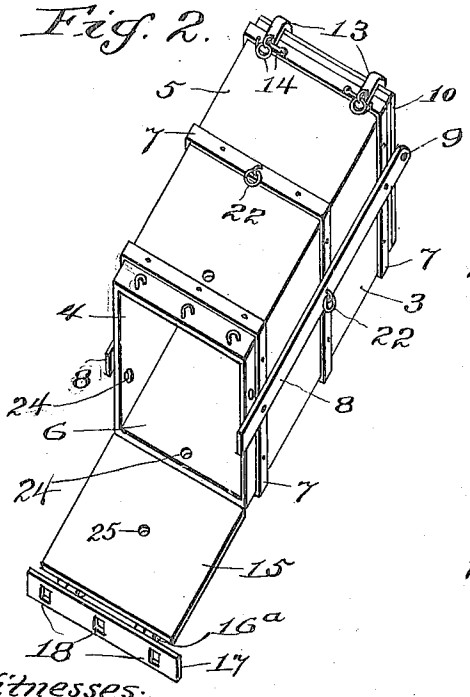
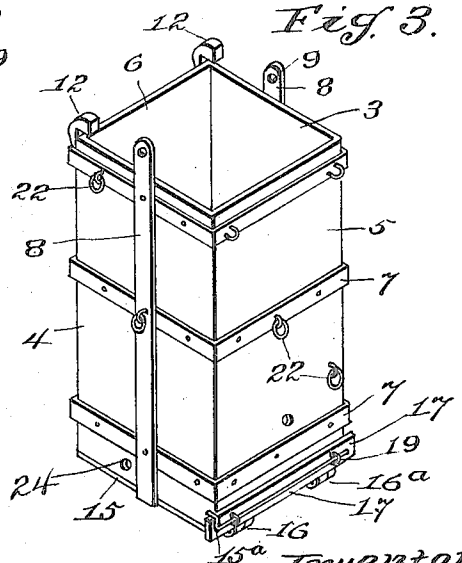


Fig. 2.



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Fig. 3.



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2 SHEETS—SHEET 2.

Fig. 4.

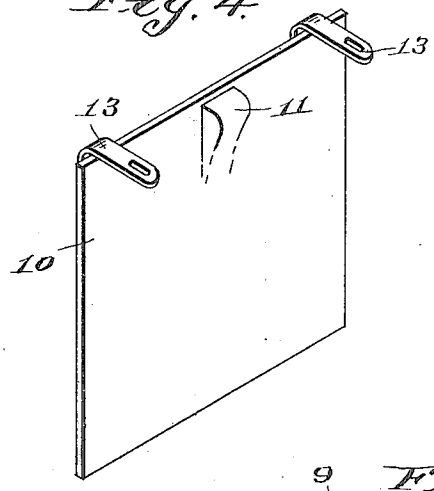


Fig. 5.

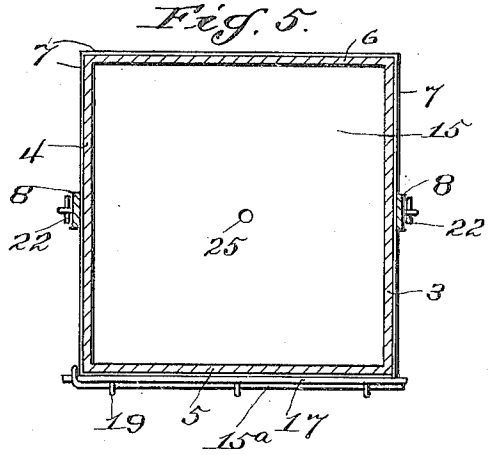


Fig. 6.

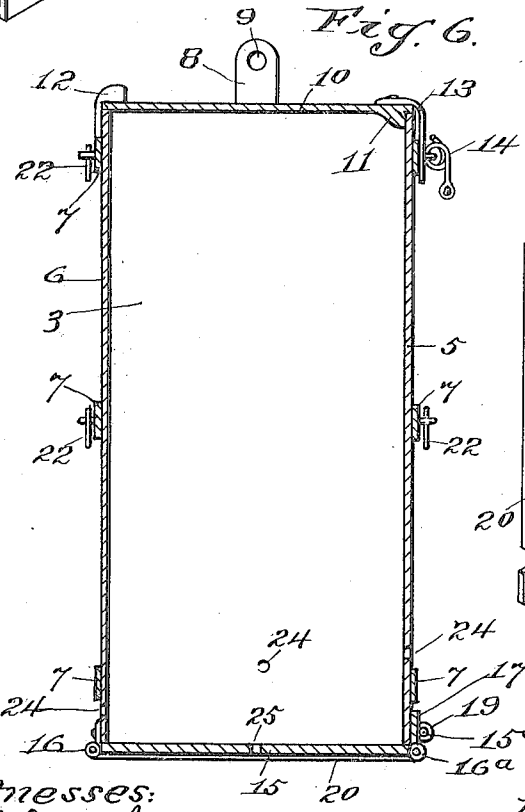
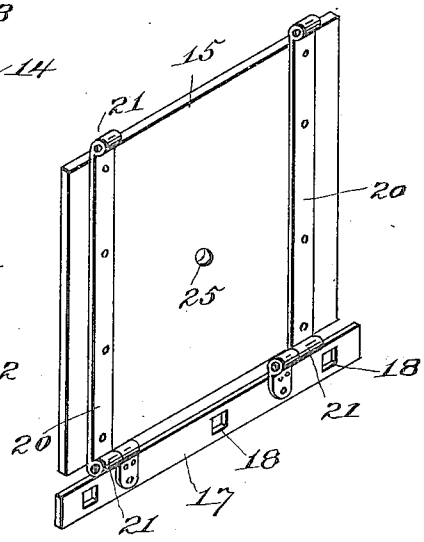


Fig. 7.



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UNITED STATES PATENT OFFICE.

HOMER PHILLIPS, OF VIROPA, WEST VIRGINIA.

COAL-CONTAINING BUCKET FOR COAL-BARGES.

1,207,208. Specification of Letters Patent. Patented Dec. 5, 1916.

Application filed February 11, 1916. Serial No. 77,598.

To all whom it may concern:

Be it known that I, HOMER PHILLIPS, a citizen of the United States, residing at Viropa, in the county of Harrison and State of West Virginia, have invented certain new and useful Improvements in Coal-Containing Buckets for Coal-Barges, of which the following is a specification.

This invention relates to coal storing, transportation, and preservation, and pertains especially to appliances for coal barges, scows, and similar navigating vessels for the transportation of coal contained in hoisting buckets, and for the recovery of the buckets with the coal contained therein in the event of sinking of such vessels laden with coal filled buckets.

It is well known that there is a great waste and loss of coal and coal receptacles by the sinking of coal laden vessels. The purpose of this invention is to furnish means in avoidance of such waste and loss, and to provide means for recovering the coal filled buckets from sunken vessels which are ordinarily used for transporting coal.

The object of the invention is to provide coal containing and shipping buckets of such special construction and arrangement of parts as to be filled, locked and loaded and adapted to be expeditiously unloaded or withdrawn from a sunken or disabled barge without waste or loss of coal from the buckets.

A further object of the invention is to provide a bucket, in which coal may be carried on coal transports, with special devices for holding coal therein in any position of the buckets, and with special devices for raising sunken buckets containing coal without losing any coal from the bucket.

A still further object of the invention is to provide novel and peculiar bottom and top end closures for the bucket which shall permit raising or hoisting the bucket from various submerged positions without opening the top or the bottom of bucket, and to furnish means in and adjacent to the bottom of the bucket for permitting exit of water from the coal contained in the bucket.

Various other objects, advantages and improved results will be found in the practical application of the invention as hereinafter fully described.

In the accompanying drawings forming part of this application: Figure 1 is an elevation showing the application of the coal buckets to an ordinary coal barge in submerged position and showing buckets as being hoisted. Fig. 2 is a perspective view of the bucket with the bottom open. Fig. 3 is a similar view with the top removed. Fig. 4 is a perspective view of the top. Fig. 5 is a cross section. Fig. 6 is a vertical section. Fig. 7 is a perspective view of the bottom.

The same reference characters denote the same parts throughout the several views of the drawings.

In carrying out my invention and for the purpose of ilustration, a flat deck scow or barge 1 is employed, upon which the buckets 2, filled with coal, are loaded in upright position, and as many of these buckets are used as the deck of the transport 1 will accommodate in accordance with the depth draft of the transport. The buckets 2 all being of the same construction only one of them will be described in detail. The bucket is preferably square in cross section, having lengthwise side walls 3, 4, 5 and 6, and brace bands 7, surrounding the walls. The bucket is further braced by plates 8 extending throughout the length of the two opposite walls 3 and 4 and projecting above the top or cover of the bucket, where said plates terminate in eyes 9 for inserting a grapple in unloading the buckets except in submerged condition of the buckets. The said eye ends 9 also form edge abutments for the lid or top 10 of the bucket. The inner face of the lid or top 10 is provided near one edge thereof with a lug 11 which engages the inner face of the wall 5, while the opposite edge of the lid fits in a pair of catch brackets 12 secured to and projecting from the wall 6. The lid is provided with a pair of angle keepers 13 which engage staples or loops on the wall 5, and are fastened thereto by means of open ring keepers 14. The bottom 15, of the bucket is hinged at 16 to the wall 6, and the free edge of the bottom has a locking bar 17 hinged or pivoted thereto 16^a. The bar 17 has a plurality of apertures 18 for engaging the same number of staples or eyes 19 upon the wall 5, adjacent to the bottom end thereof, and a locking rod 15^a extends through the staples or eyes 19, for securing the bottom in closed position. The bottom 15 is closed between a bottom projection of the plates 8. The locking bar 17 is preferably connected with the bottom 15 and the latter with the wall

6, by bars 20 extending across the bottom having a hinge member 21 at each end, so that these bars not only constitute means for swinging the locking bar on the bottom and the latter on the wall 6, but said bars form substantial braces for the bottom of the bucket. The ends of the locking bar project sufficiently to enable said ends to be grasped or operated upon for displacing the bar after the locking rod is withdrawn.

The walls, top, and bottom of the bucket are each provided with two or more swinging rings 22, adapted to be engaged by a hoisting hook 23, with the buckets submerged in any position they may assume on a sunken transport, or in any position the buckets may assume in falling from the transport. The walls have water ducts 24 adjacent to the lower ends thereof, and the bottom of the bucket has a central water duct 25, for permitting drainage of water from the coal in withdrawing the buckets from submerged positions. The buckets are filled after they have been placed upright on the barge.

It will be seen that the buckets, when filled, locked in closed position, on a transport, are capable of being upset and turned to assume various positions in case of the sinking or other accident to the transport, and in any of such positions, one or more of the catch rings are available for engagement by the hoisting hook for raising the buckets, without loss or waste of coal from the buckets. After a bucket has been raised by employing the hook and rings, it may be set upright so that the grapple may be used for further hoisting, swinging and discharge of the coal therefrom. Obviously the bottom and top locking devices are such as to hold the bottom and the top securely closed until said devices are operated for charging and discharging coal.

I do not wish to be understood as confining myself to any particular material in making the buckets, to any particular number of hoisting rings, nor to the application of the buckets to any particular transport, but reserve the right to make such changes therein as may come within the scope of the appended claim.

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

A coal transporting bucket comprising stationary side walls, catch brackets projecting from and above one of the side walls, a removable top closure fitting the brackets and having an inner lug engaging the inner face of the wall opposite the bracketed wall, grapple-engaging rings secured to the top and to the sides, and means for locking the top in closed position.

In testimony whereof I affix my signature in presence of two witnesses.

HOMER PHILLIPS.

Witnesses:

JOE GREEN,

JAMES his mark × BROOKS.

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