Aug. 31, 1926.

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J. A. COLE

DUMPER FOR CARBOYS AND THE LIKE

Filed May 6, 1921

Fig. 1.

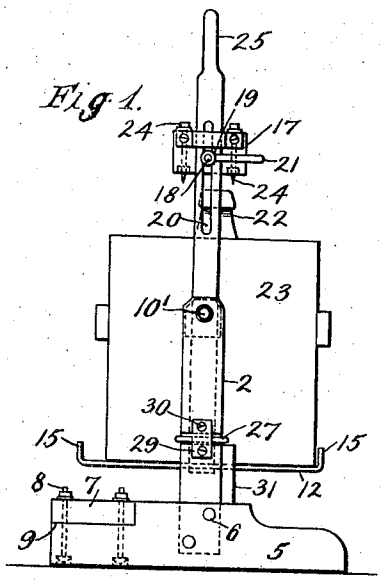



Fig. 2.

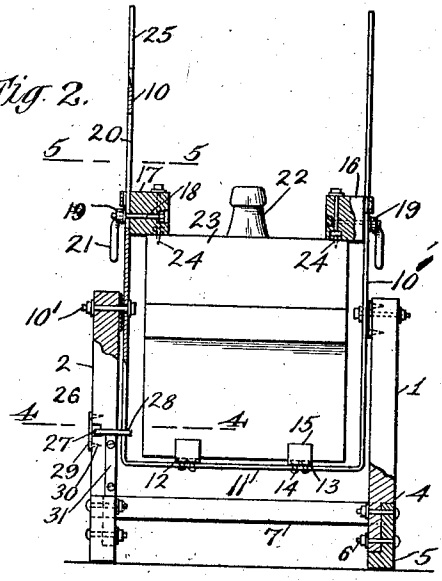



Fig. 3.

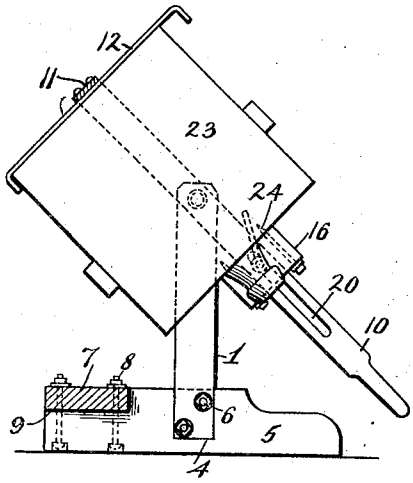



Fig. 5.

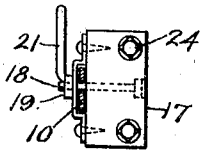
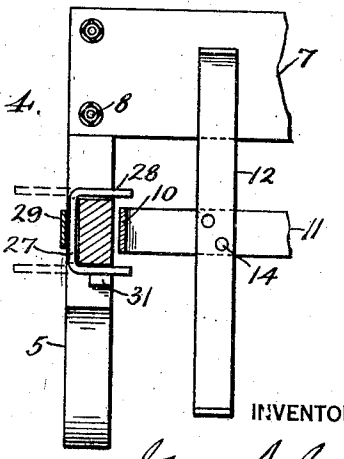



Fig. 4.




INVENTOR

James A Cole

BY Lib ATTORNEYS

Philip Thompson Rice Kenner

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# UNITED STATES PATENT OFFICE.

JAMES A. COLE, OF WATERBURY, CONNECTICUT, ASSIGNOR TO SCOVILL MANUFACTURING COMPANY, A CORPORATION OF CONNECTICUT.

## DUMPER FOR CARBOYS AND THE LIKE.

Application filed May 6, 1921. Serial No. 467,457.

This invention relates to certain improvements in dumping devices for large liquid containers, as carboys, bottles, and the like, which are of considerable weight and therefore difficult to manipulate when removing the contents therefrom by dumping.

It is the especial object of the invention to provide a dumping device or holder of simple form and construction so that it will be inexpensive to manufacture and in which the parts are so arranged that the container may be tipped sufficiently to dump all the contents therefrom, and easily and readily manipulated during the dumping operation.

A further object of the invention is to provide a dumping device or holder in which the container is securely held in the device so that it cannot become accidentally misplaced and spill the contents, and in which the dumping means will also include means for assisting in balancing the container as it is tipped, and which may be manipulated by the operator from a sidewise position so as to give clear access to the nozzle or other pouring point of the container during the dumping with little likelihood of the contents of the container being spilled on the operator or lost in pouring.

It is a further object of the invention to provide such a dumper in which adjustable means are provided for holding the container in place so that various sizes of containers may be dumped from the same device.

With these and other objects not specifically referred to, the invention consists in certain novel parts and combinations, a preferred form of which is shown in the accompanying drawings in connection with which the invention will be described in detail, and the novel features thereafter pointed out in the claims hereunto annexed.

Referring now to these drawings:

Figure 1 is a side elevation of an improved dumper.

Figure 2 is an end view partly in section of the dumper shown in Fig. 1.

Figure 3 is a view similar to Fig. 1, partly in section and partly broken away, showing the dumper tipped to bring the container to dumping position.

Figure 4 is a partly broken away and partly sectional plan view on a large scale, the section being taken on line 4—4 of Fig. 2, of certain details; and

Figure 5 is a detail view, partly in section, the section being taken on line 5—5 of Fig. 2, on an enlarged scale showing other details.

Referring now to these drawings, the improved dumper will include a stand of any suitable material, such as wood, formed with a pair of spaced uprights 1, 2, these uprights being spaced a sufficient distance to permit a carboy or the like, and certain parts hereinafter referred to to be received between them. These uprights are of sufficient height so as to lift the carboy off the floor. To effect a strong rigid structure these uprights are joined, as indicated at 4 to feet 5, being secured thereto by bolts 6, these feet being of any suitable material, such as wood, and of sufficient length to give a firm support for the stand. The feet are preferably braced as by means of a block 7 secured to the feet by bolts 8, the feet being undercut, as indicated at 9, to form a recess to receive this block. This block is preferably secured to the feet at one end so as to leave the other end free and provide a wide open space in which to tip the carboy. This construction forms a firm and rigid structure for supporting the weight of the carboy or the like which is to be mounted therein.

Dumpers constructed in accordance with the invention will include a pivoted frame mounted to swing between the uprights and adjustable clamping means for clamping the carboys or other containers in the frame, and in devices constructed in the best form, weights will be provided for assisting the tipping movement of the carboy as it tips with the frame in the stand. While various specific constructions may be employed for effecting this, as illustrated there is provided a frame, made preferably of a strip of sheet metal of suitable thickness, this frame being bent to form side arms 10 connected by a bottom piece 11, this bottom piece when in its normal position being raised a sufficient distance above the floor to permit the container to swing sufficiently to dump its entire contents. Secured to this frame are what may be termed cross pieces or bars,

12, 13, which are in the form of metal strips secured to the bottom piece 11 of the frame as by rivets or bolts 14. These cross pieces and the cross piece 11 form a firm support for the carboy, and to prevent the carboy from sliding off the frame at the bottom these cross pieces are provided with end stops, which may be simply and readily formed by turning up the ends of the bars or strips as indicated at 15. The frame arms 10 are pivoted to the uprights as shown at 10'.

The side arms 10 of the frame will be extended upwardly above the height of the top of the carboy which is to be supported in the frame, and these arms will be provided with means for clamping the carboy in the frame, these clamps being arranged so as to be adjustably positioned in the side arms so they can be used in carboys of different heights. As shown there are provided a pair of blocks 16, 17 which are mounted so as to slide in the arms, and to bear when in operative position on the upper surface of the carboy or other container. These blocks are secured, in the construction illustrated in the side arms, being provided with bolts 18 having locking nuts 19 positioned outside the frame arms. These bolts extend through slots 20 in the arms and the blocks are clamped in position by rotating the nuts 19 up against the sides of the arms. This clamping may be simply accomplished and in a way to obviate the necessity of using a loose tool, such as a wrench, by providing handles 21 integral with the nuts. In certain uses of the dumper, and particularly where the dumper is used with carboys in the form of glass receptacles 22 enclosed in wooden cases 23 the clamps may be provided with projections, such as spikes 24 which will bite into the wood of the case 23 and act to very firmly hold the case in position. It will be understood, however, that these spikes are not necessary and may be omitted if desired. In the best constructions weights will be provided for assisting the tipping of the container, and where clamping blocks are used for clamping the container in the frame these blocks will be heavy blocks of metal or other heavy material to give the required weight, thus providing a very simple construction.

One or, preferably as shown, both of the side arms are extended somewhat above the highest position of the blocks and provide handles 25. These handles are provided at each side of the dumper and the dumper may be tipped by the operator standing at one side thereof so that there is no danger of acid or other injurious substance which is being dumped from the container getting on the hands of the operator or being lost through spilling. A very safe and economical construction is thus produced.

In dumpers embodying the invention in its best form means will be provided for holding the side arms fast between the supports 1, 2 so that the frame cannot be accidentally tipped when loading a carboy into it. While various holders may be employed, as shown, one of the supports, as support 2, is recessed, as indicated at 26 to receive a bar 27 having extending arms 28, one of these arms extending on each side of the frame, as clearly shown in Fig. 4, and preventing the frame from accidentally tipping. The bar is held in position by a plate 29 suitably secured to the support 2 as by means of screws 30, and when it is desired to release the frame the locking bar may be swung outwardly to the position shown in dotted lines in Fig. 4, and when this is done the frame can be tipped. A stop 31 may be provided for holding the bar in operative position, which may be in the form of a strip of wood secured to the face of the support 2 so as to lie in the path of the bar when it is in its turned-in or frame stopping position, as shown clearly in Fig. 2.

With the construction described a very simple and efficient dumper for carboys and like containers has been provided, one of few parts and which will accommodate carboys of varying sizes, which will permit the whole of the carboy to be dumped without danger to the operator, and in which the carboy is rigidly and firmly held. While the construction shown is that preferred, it will be understood that certain changes and variations may be made in the parts shown and described without departing from the invention as defined in the claims annexed hereto.

What I claim is:

1. In a dumper for carboys and the like, the combination of a base formed by a pair of spaced members having uprights rising therefrom, said spaced members being rigidly connected together so as to leave an open space between the spaced members at the points where the uprights are secured thereto, a carboy supporting frame including a bottom member and side arms, said side arms being pivotally secured to said uprights, cross pieces secured to the bottom of said frame, stops carried by the cross-pieces, adjustable clamps mounted on and projecting inwardly from the side arms, said clamps being arranged to engage a carboy and cooperate with the stops to prevent displacement of the same, means for locking said clamps in adjusted position, and adjustable weights carried by the side arms arranged to counterbalance the weight of the carboy.

2. In a dumper of the class described, the combination of a stand including a pair of connected supporting uprights spaced apart, a frame formed of a strip of metal bent to form side arms and a cross piece pivotally supported between the uprights, a handle on

the frame for tipping it, supporting bars in the form of metal strips having end stops secured to the cross piece of the frame and swinging therewith, a pivoted latch having arms taking on each side of a side arm latching the arm to an upright, clamping blocks adjustably secured in the frame arms, bolts on which the blocks are supported, and locking nuts provided with operating handles for locking the bolts to the side arms.

In testimony whereof, I have hereunto set my hand.

JAMES A. COLE.