Oct. 9, 1962 C. WHEAT 3,057,498

TRASH LOADER

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Fig.1

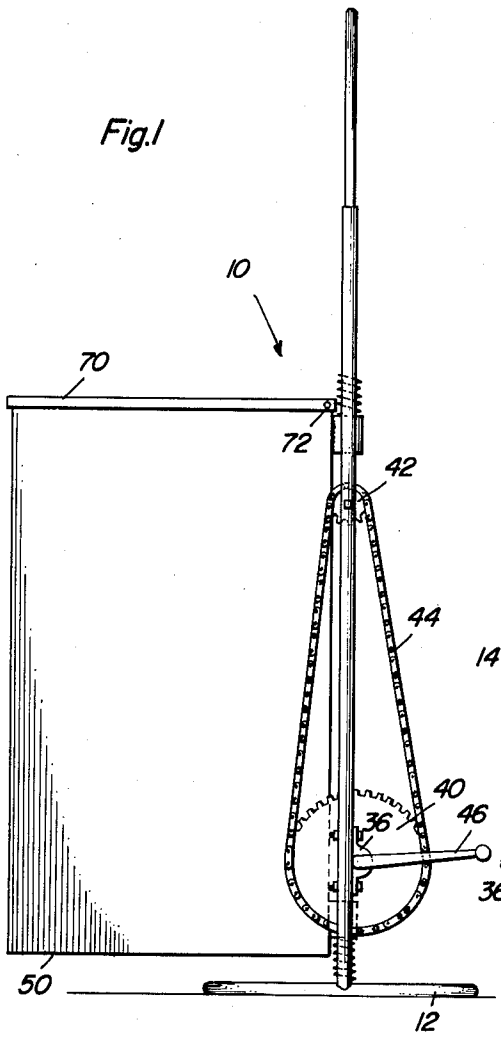


Fig.2

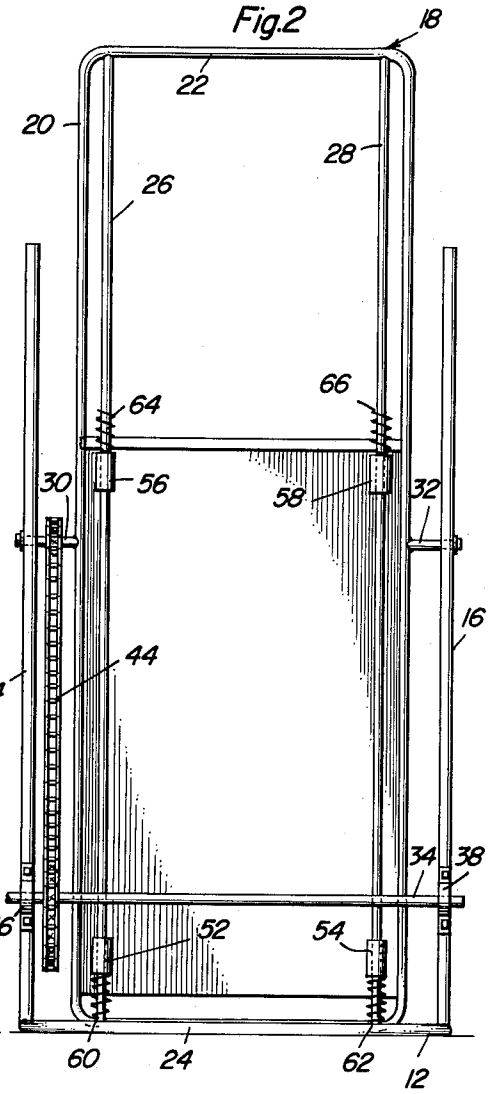
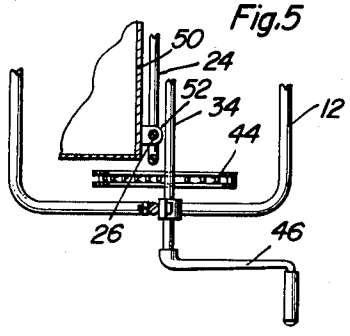


Fig.5



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Fig. 4

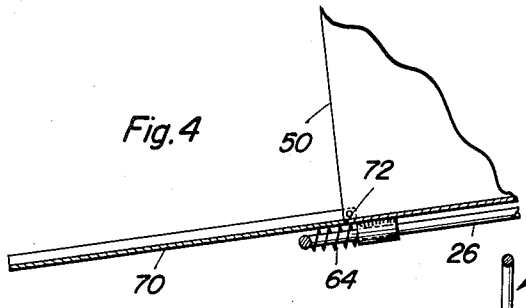
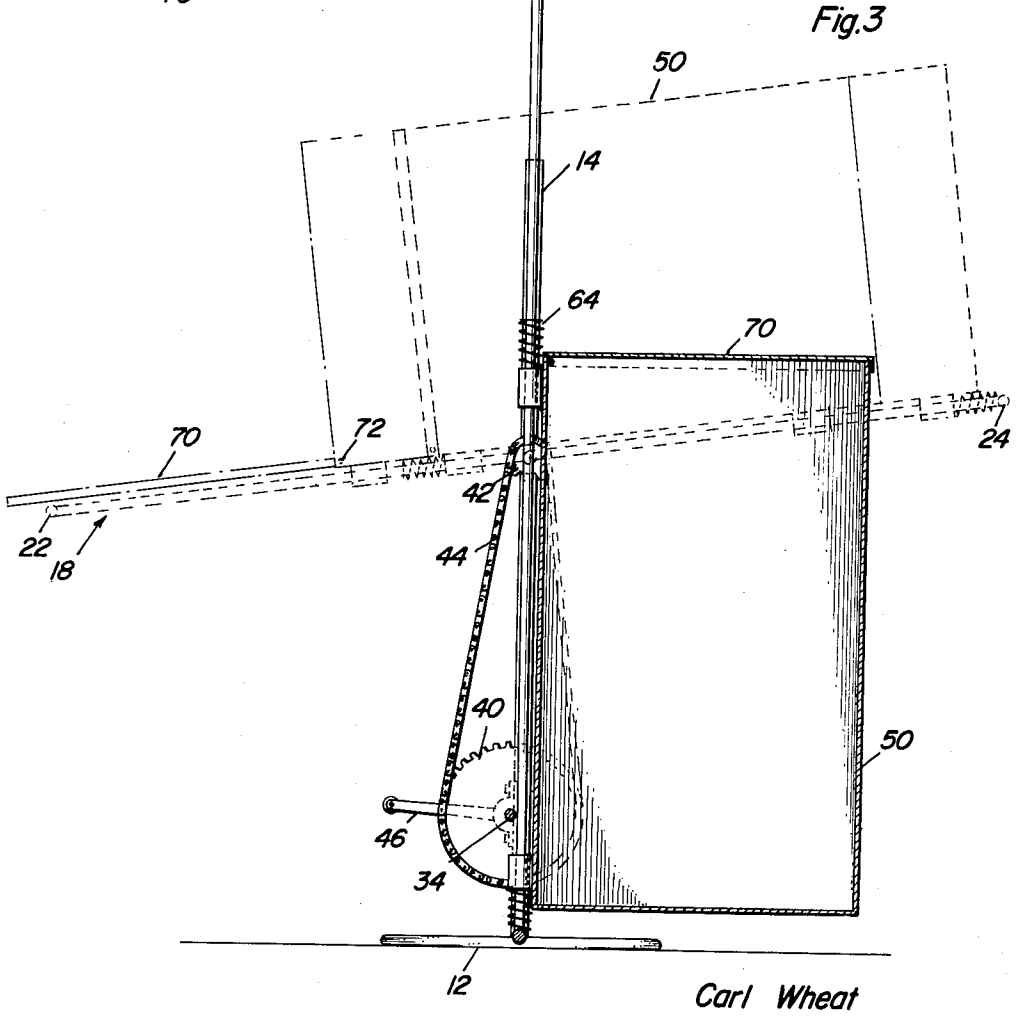


Fig. 3



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TRASH LOADER

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1 Claim. (Cl. 214—314)

This invention relates generally to receptacle means and more particularly to a novel and improved construction facilitating the storage of trash and the loading of the trash into a truck or such.

Generally, trash is stored in conventional garbage cans and when it is desired to be loaded or dumped into a trash collection truck, it is necessary to completely lift the garbage can and overturn it to allow the trash to fall into the truck. This procedure requires the services of a reasonably strong person and prevents women and children from loading the trash. Also, the procedure is somewhat messy and requires the person to handle the trash.

In view of the above, it is the principal object of this invention to provide novel means for storing trash and for facilitating the loading or dumping of the trash into a collection truck.

It is more particularly an object of this invention to provide a novel and improved trash loader construction which minimizes the effort required to dump trash into a truck and which allows the dumping of the trash in a manner which requires considerably lesser handling of the trash by the operator.

It is a still further object of this invention to provide a novel trash loader including a frame pivotable between a pair of upstanding standards. Slidably carried on the frame is a box receptacle having an open upper end with a closure member hinged to the box receptacle adjacent the upper end. Means are provided for pivoting the frame so that the box receptacle is inverted as it slides along the frame whereby the closure member opens allowing the trash to fall from the receptacle and into a truck.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view of the improved trash loader construction showing the device in its normal position with the box receptacle thereof adapted to receive trash through the open upper end by pivoting the closure member about its hinged connection;

FIGURE 2 is an elevational rear view of the trash loader;

FIGURE 3 is an elevational side view of the trash loader illustrating in dotted lines how the frame, comprising a portion of the construction, is pivoted relative to a pair of upstanding standards for allowing the box receptacle slidably carried by the frame to open causing the trash therein to fall therefrom;

FIGURE 4 is an enlarged fragmentary view showing the closure member hinged to the box receptacle and illustrating particularly the spring means between the box receptacle collar and the transverse end frame member; and

FIGURE 5 is a sectional view illustrating particularly the construction of the lower portion of the receptacle, frame and lower shaft.

With continuing reference to the drawings, numeral **10** generally represents the invention comprising the trash loader which is to be utilized for storing and dumping trash into a truck. The trash loader **10** initially includes a base **12** which is preferably rectangular in shape but

which may be circular if desired. The base **12** should of course be formed of relatively heavy material to assure stability of the trash loader. Secured to the base **12** and extending upwardly therefrom is a pair of standards **14** and **16**. The standards **14** and **16** are spaced and alined and positioned substantially centrally on the base **12**.

A frame **18** is substantially rectangular and has a closed outer frame portion **20** including a pair of transverse and spaced end members **22** and **24**. Spaced and parallel tracks **26** and **28** extend between the transverse end members **22** and **24**. Spindles **30** and **32** are secured to the outer frame portion **20**. The spindles **30** and **32** are disposed substantially intermediate the transverse end members **22** and **24**. Each of the spindles **30** and **32** is mounted for pivotal movement in the standards **14** and **16** respectively.

A shaft **34** is rotatably journalled in bearings **36** and **38** secured to the standards **14** and **16**. The shaft **34** is spaced from the spindles **30** and **32**. A first sprocket gear **40** is fixed to the shaft **34** while a second sprocket gear **42** is fixed to the spindle **30**. A sprocket chain **44** drivingly connects the gears **40** and **42**. A crank **46** is fixed to the shaft **34**. Accordingly, it will be appreciated that by turning the crank **46**, the gear **40** may be turned so as to cause the spindle **30** to pivot in the standard **14**. The frame **18** is thereby caused to move from its normally vertical position to the position illustrated in dotted lines in FIGURE 3 wherein the frame **18** is inclined from the transverse member **22** to the transverse member **24**.

A receptacle **50** is provided, said receptacle being of substantially rectangular shape. A lower pair of collars including collars **52** and **54** are secured to the receptacle **50** and slidably received on the tracks **26** and **28** respectively. Upper collars **56** and **58** are likewise secured to the receptacle **50** and slidably received on the track **26** and **28**. Springs **60** and **62** are mounted around the tracks **26** and **28** between the collars **52** and **54** and the transverse end member **24**. Likewise, springs **64** and **66** are received on the tracks **26** and **28** between the collars **56** and **58** and the transverse end member **22**. The receptacle **50** is provided with an open upper end and has a closure member **70** hinged thereto at **72** adjacent said open upper end.

When employing the device **10**, trash may be deposited into the receptacle **50** in its normal position illustrated in FIGURE 1, by merely pivoting the closure member **70** about the hinged connection **72** so as to gain access to the interior of the receptacle **50**. When it is desired to dump the trash from the receptacle **50** or in effect to load the trash onto a truck, it is necessary to position a truck adjacent the trash loader **10**. Then, by turning the crank **46**, the frame **18** is pivoted or tilted to the dotted line position illustrated in FIGURE 3 as shaft **34** rotates causing gear **40** to turn gear **42** to turn spindle **30** to tilt frame **18**. Inasmuch as the receptacle **50** is freely slidable with respect to the frame **18**, the collars secured to the receptacle slide along tracks **26** and **28** toward transverse end member **18**. As the receptacle **50** assumes the inclined position illustrated in FIGURE 3, the closure member **70** of course pivots to an open position about the hinge connection **72**. As shown in FIGURES 3 and 4 of the drawing, the closure **70**, when open, is in a position to function as a chute from the receptacle **50**. The springs prevent excessive impact of the collars with the transverse end members. As the contents of the receptacles **50** fall therefrom, they will fall into the truck which has been positioned adjacent thereto. Therefore, it will be apparent that even a woman or child may easily cause the trash to be loaded into a truck without actually handling the trash.

The particular materials utilized in the construction of the invention are of course substantially a matter of choice. However, it is preferred that sheet metal be utilized to form the receptacle **50** while iron piping be employed substantially throughout the rest of the construction. It is contemplated that the frame be approximately eight feet in height and four feet in width. The dimensions of the receptacle are preferably three and one-half feet by three and one-half feet by five feet in height. If desired, the base **12** may employ rollers for facilitating the mobility thereof.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

A device for dumping trash comprising a pair of spaced upstanding standards, a frame, means centrally disposed on said frame mounting said frame for pivotal movement between said standards, said frame including a pair of spaced parallel tracks and a pair of spaced transverse end members connecting said tracks, a box-like receptacle, a pair of collars secured to said box-like receptacle slidable on said tracks, said means centrally disposed on said frame including a pair of oppositely extending spindles secured to said frame rotatably journaled to said standards, and means for pivoting said frame comprising a shaft spaced from said spindles and rotatably journaled between said standards, a first gear secured to said shaft, a second gear secured to said spindle, means operatively connecting said first and second gears, and a crank secured to said shaft, said box-like receptacle having an open upper end, a gravity-opened closure member hinged to said box-like receptacle adjacent said open upper end thereof and constituting a chute when in open position for conveying trash from the receptacle over an end of the frame, said closure being directly slidably supported by the tracks in chute-functioning position when the receptacle is in dumping position, and coil springs slidably carried on said tracks between said collars and transverse end members.

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