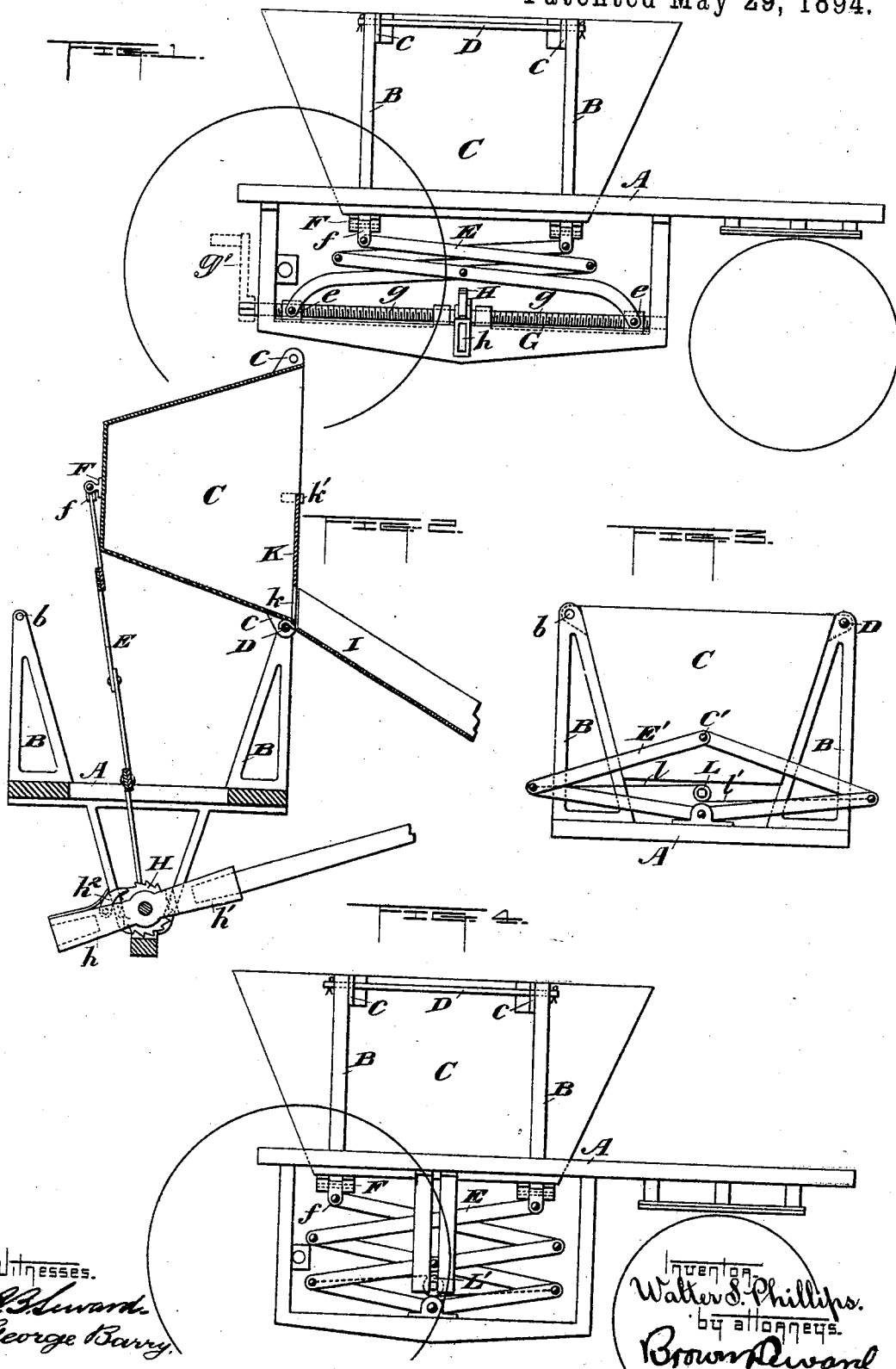


(No Model.)

W. S. PHILLIPS.
DUMPING WAGON.

No. 520,572.

Patented May 29, 1894.



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WALTER S. PHILLIPS, OF BROOKLYN, NEW YORK.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 520,572, dated May 29, 1894.

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To all whom it may concern:

Be it known that I, WALTER S. PHILLIPS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Dump-Wagons, of which the following is a specification.

My invention relates to an improvement in dump wagons and more particularly to that class of dump wagons in which provision is made for dumping the load at the side.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of a wagon in side elevation, showing the body of the wagon in the position which it assumes when transporting a load. Fig. 2 is a transverse, vertical section, showing the parts in the position which they assume when the wagon is dumping its load. Fig. 3 is an end view, showing a modified arrangement of the means for dumping the body, and Fig. 4 is a side view, showing another modified arrangement of operating mechanism.

The bed frame of the wagon is represented by A and it may be supported upon four wheels in any well known or approved manner. The bed frame A is provided with up-rising standards or supports B, in the present instance four are shown for the purpose of suspending the body C which receives the load. The body C is constructed to be suspended and to swing about pivots on either of its two opposite sides at pleasure. To this end I provide perforated ears or lugs *c* at the upper edge of and projecting outwardly from the body C. Through these lugs and through corresponding perforations *b* in the tops of the standards B, I insert a removable pintle rod D. Instead of a single rod D, it is obvious that two shorter rods might be employed, one extending through each lug *c* and its corresponding standard at one side of the body. When the load is to be dumped on the right side of the wagon the pintle rod D will be inserted through the lugs *c* and standards on the right side and when the load is to be dumped on the opposite or left side, the pintle rod D may be inserted through the lugs *c* and corresponding standards on the left side.

I prefer to form the body C of a general

funnel shape, as shown, in order that there may be a free expanded top for receiving the load and in order that the pitch required for discharging the load, such for example as a load of coal, may be obtained when the body reaches the position at, or about at, right angles to its normal position.

The means which I employ to swing the body on its pivotal connection is what is commonly known as lazy tongs. These are represented as a whole, by E. The ends of the upper members of the lazy tongs are pivotally secured to connections *f* so as to rock in a longitudinal plane and the connections *f* are at the same time hinged or pivoted to connecting pieces F fixed to the bottom of the body C so as to rock in a transverse plane, thereby forming a connection of the lazy tongs with the bottom of the body in the nature of a universal joint. The lower members of the lazy tongs are provided at their ends with screw-threaded sockets *e* which engage right and left screw threads *g* on the shaft G journaled lengthwise of the wagon underneath its bed frame and provided with a ratchet toothed wheel H fixed thereon. Lever sockets *h*, *h'* are loosely mounted on the screw shaft G in proximity to the ratchet toothed wheel H and carry a spring actuated pawl *h*² in position to engage the teeth on the ratchet wheel H as the socket pieces *h*, *h'* are rocked. The object of having the two socket pieces *h*, *h'* is to provide for operating the screw shaft G from either side of the wagon at pleasure.

In operation, to elevate the loaded body of the wagon to dump it, the screw shaft G may be operated by the lever in one or the other of the socket pieces *h* or *h'* in a direction to draw the lower members of the lazy tongs toward one another. The emptied body may be conveniently lowered by throwing the pawl *h*² out of engagement with the ratchet teeth on the wheel H and turning the screw shaft G by means of a crank *g'* attached to a squared end of the shaft. The chute for receiving and directing the load, indicated in connection with Fig. 2, by I, may be hooked over the pintle rod D and the contents of the load may be directed to the chute by means of a removable cover or shield K, arranged with a recess *k* at the entrance to the chute and

provided with hooks or other fastening devices k' for attaching it temporarily to the edge of the body C.

Instead of attaching the lazy tongs to the bottom of the body, as shown in Fig. 1, there may be two sets of them, indicated in Fig. 3 by E' , one at each end of the body and connected with lugs c' at the ends of the body. These sets of lazy tongs may be operated by means of a rotary shaft L extending longitudinally beneath the body C of the wagon and centrally between the lower two sets of members of the lazy tongs and connected with the opposite joints of the lazy tongs by flexible connections l, l' so that as the shaft is rotated in one direction, it will wind on it the flexible connections l, l' and thereby straighten out the lazy tongs and when rotated in the opposite direction will let off the flexible connection and permit the lazy tongs to collapse.

Another arrangement for operating a single set of lazy tongs is represented in Fig. 4, in which a transverse shaft L' is connected with the opposite joints of the lazy tongs by flexible connections in a manner quite similar to that hereinabove described in connection with the shaft L.

It will be observed that I am enabled—to the above described construction and arrangement—to dump the load from a point as high up as the edge of the wagon body when it is in its normal position while the load itself—when the body is in its normal position—may be carried so low down as to make the wagon stable. The simple means of arranging the wagon to dump on one side or the other at pleasure is also an advantageous feature and the lazy tongs structure for swinging the load to dump it is not liable to become strained or cramped, because it is permitted at all times to adjust itself to the direct line of strain between the operating shaft and the point where it is attached to the wagon body.

It is obvious that slight changes might be resorted to in the form and arrangement of the several parts described without depart-

ing from the spirit and scope of my invention, hence I do not wish to limit myself strictly to structure herein set forth, but

What I claim is—

1. The dumping wagon, comprising a body for the reception of the load, a support for the body, means for pivoting the body at its edge to the support, lazy tongs connected with the body and with the body support and means for operating the lazy tongs, substantially as set forth.

2. The combination with the bed frame and standards uprising therefrom, of a body for the reception of the load, means for suspending the said body at either of its opposite sides, at pleasure, from said supports, lazy tongs connected with the body and with the body support and means for operating the lazy tongs, substantially as set forth.

3. The combination with the body support and the body pivoted to the support, of lazy tongs connected at one end with the body, a rotary shaft provided with a right and left screw engaged with the opposite end of the lazy tongs and journaled in the body support and means for operating the said screw shaft, substantially as set forth.

4. The combination with the body support, the body and the removable pintle for pivoting the upper edge of the body to the body support, of lazy tongs engaged at one end with the body, a rotary shaft engaged with the opposite end of the lazy tongs and means for operating the said shaft, substantially as set forth.

5. The combination with the body support, the body pivoted to the support and means for swinging the body on its pivot, of a removable cover or shield for temporarily covering a portion of the top of the body during the operation of dumping, substantially as set forth.

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Witnesses:

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