No. 634,404. Patented Oct. 3, 1899.

O. H. DRINKWATER.

WAGON BODY LIFTER.

(Application filed Mar. 28, 1899.)

(No Model.)

Fig. 1.

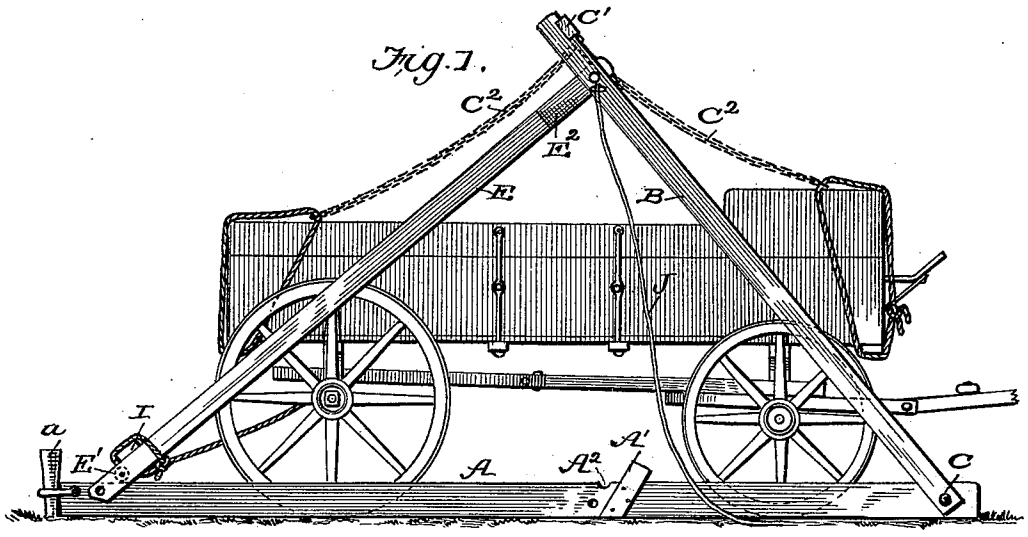
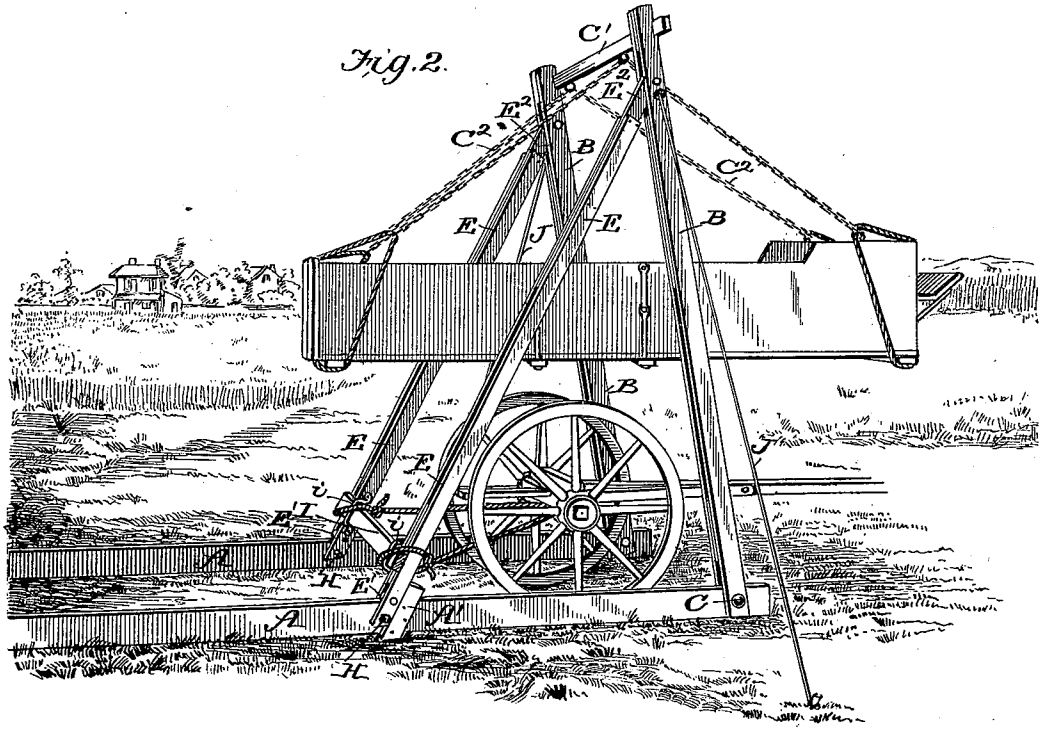


Fig. 2.



WITNESSES:
Jos. A. Ryan
Percy B. Turpin.

INVENTOR
Otto H. Drinkwater
BY Munn & Co.
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ORLO H. DRINKWATER, OF COTTONWOOD FALLS, KANSAS.

WAGON-BODY LIFTER.

SPECIFICATION forming part of Letters Patent No. 634,404, dated October 3, 1899.

Application filed March 28, 1899. Serial No. 710,773. (No model.)

To all whom it may concern:

Be it known that I, ORLO H. DRINKWATER, residing at Cottonwood Falls, in the county of Chase and State of Kansas, have made certain new and useful Improvements in Wagon-Body Lifters, of which the following is a specification.

My invention is an improvement in wagon-body lifters, and has for an object to provide a simple construction by which great power may be exerted in a simple manner to lift a wagon-body from the running-gear and by which the running-gear can be caused to transmit the power; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side view of my improved wagon-body lifter with the body connected to the toggle so it will be lifted when the running-gear is moved forward to adjust the lower end of the sliding toggle-arm toward the corresponding end of the other arm of the toggle, and Fig. 2 is a perspective view showing the wagon-body lifted and suspended from the toggle.

The present invention may be regarded as an improvement upon the apparatus described and shown in my former patent, No. 530,168, issued December 4, 1894. In my present apparatus I provide a toggle having arms jointed together at their upper ends and arranged to be brought at their lower ends into juxtaposition, whereby to elevate the joint of the toggle where the body is supported. This toggle operation is important, as by it I secure in an easy manner the power necessary to raise the body, as will be more fully described.

In the construction shown I employ a base composed of sills A, which may be suitably formed and are anchored in operation by stakes *a*, as shown. One of the toggle-arms B is jointed at its lower end C to the sills A and near its upper end to the upper end of the other toggle-arm E, which slides at its lower end upon the sills A, so it may adjust toward the jointed end C of the arm B to bring the lower ends of the toggle-arms into juxtaposition in order to lift the joint of the toggle and so lift the wagon-body suspended therefrom.

The toggle-arms are composed of the opposite side bars, which are pivoted to their respective sills and are connected at their upper ends by the cross-bar C′, which is supplied with hooks on which are supported the chains C^2, which connect with the wagon-body in any desired manner. By preference each side bar of the toggle-arms is formed of two bars which lap on opposite sides of the base-sills, as shown, and the side bars of the toggle E are likewise formed of two wooden bars, which are suitably spaced apart to receive between them near their lower ends the rollers E′, which run upon the sills A. At their upper ends the side bars of the toggle-arm E have stems E^2, which fit between and are pivoted to the sections of the side bars of the toggle-arm B, as is best shown in Fig. 2 of the drawings. This construction is simple, strong, and enables the parts to be readily constructed and connected without the necessity of any highly-skilled labor.

At a suitable point the sills A are provided with stops A′ to limit the movement of the lower end of the toggle-arms in lifting the wagon-body, and such sills are provided adjacent to the stops A′ with notches or depressions A^2, into which drop the rollers E′. When the toggle-arm E has been adjusted to the position shown in Fig. 2, it may be secured by a bolt or bolts H, passed through its side bars into the sill or sills in order to lock the parts in position to hold the wagon-body elevated when so desired.

In the use of my improvement, when the parts are as shown in Fig. 1, the wagon-body may be connected by the chains C^2 with the upper end of the toggle and the running-gear of the wagon may be hitched by a rope or otherwise to the lower end of the arm E of the toggle. If now the wagon running-gear be drawn forward by the team or otherwise, the lower end of the toggle-arm E will be drawn toward the lower end of the arm B and the joint of the toggle will be elevated, lifting the body of the wagon off the running-gear to the position shown in Fig. 2, where it may be secured by means of the bolt H or otherwise, as before described. In connecting the rope by which the toggle E is hitched to the running-gear I prefer to provide a movable bar I, extending from side to side be-

tween the side bars of the toggle-arm E and held as shown. In securing the bar I, I prefer to provide the side bars of the toggle E with loop-keepers *i*, in which the bar I may be slipped endwise.

Manifestly the wagon-body lifter may be used in the open air or in a barn or other inclosure and may be modified to suit the location in which it is used.

It will be readily seen that my lifter is adapted for wagon-bodies of different sizes, as the chains C^2 can be readily connected with any ordinary form of wagon body or bed to lift the same whenever desired.

Guy-lines J are provided by which to steady the apparatus in the position shown in Fig. 2 when the wagon-body is elevated.

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

1. In a wagon-body lifter the combination of the sills, the toggle-arm having its side bars pivoted to said sills, and the toggle-arm having its side bars pivoted at their upper ends to the pivoted toggle-arm and rollers operating upon the sills substantially as set forth.

2. In a wagon-body lifter the combination of the sills provided with stops and adjacent thereto with notches or depressions, and the toggle-arms one of which is pivoted to the sills and the other of which is movable on said sills and rollers dropping into the notches or depressions thereof substantially as set forth.

3. The wagon-body lifter composed of the sills, the toggle-arms jointed together at their upper ends and composed each of side bars having at their lower ends portions lapping on opposite sides of the sills, the lower portions of the side bars of one toggle-arm being pivoted to the sills antifriction-rollers operating on the sill, stops on the sill for engaging the moving arm of the toggle and devices for locking the toggle when raised substantially as set forth.

4. A wagon-body lifter comprising the sills, a toggle-arm having opposite side bars pivoted at their lower ends to said sills, and the toggle-arm having its opposite side bars pivoted at their upper ends to the first toggle-arm and movable at their lower ends along the sills, substantially as set forth.

ORLO H. DRINKWATER.

Witnesses:
GEORGE W. CRUMB,
BENJAMIN L. SPENCE.