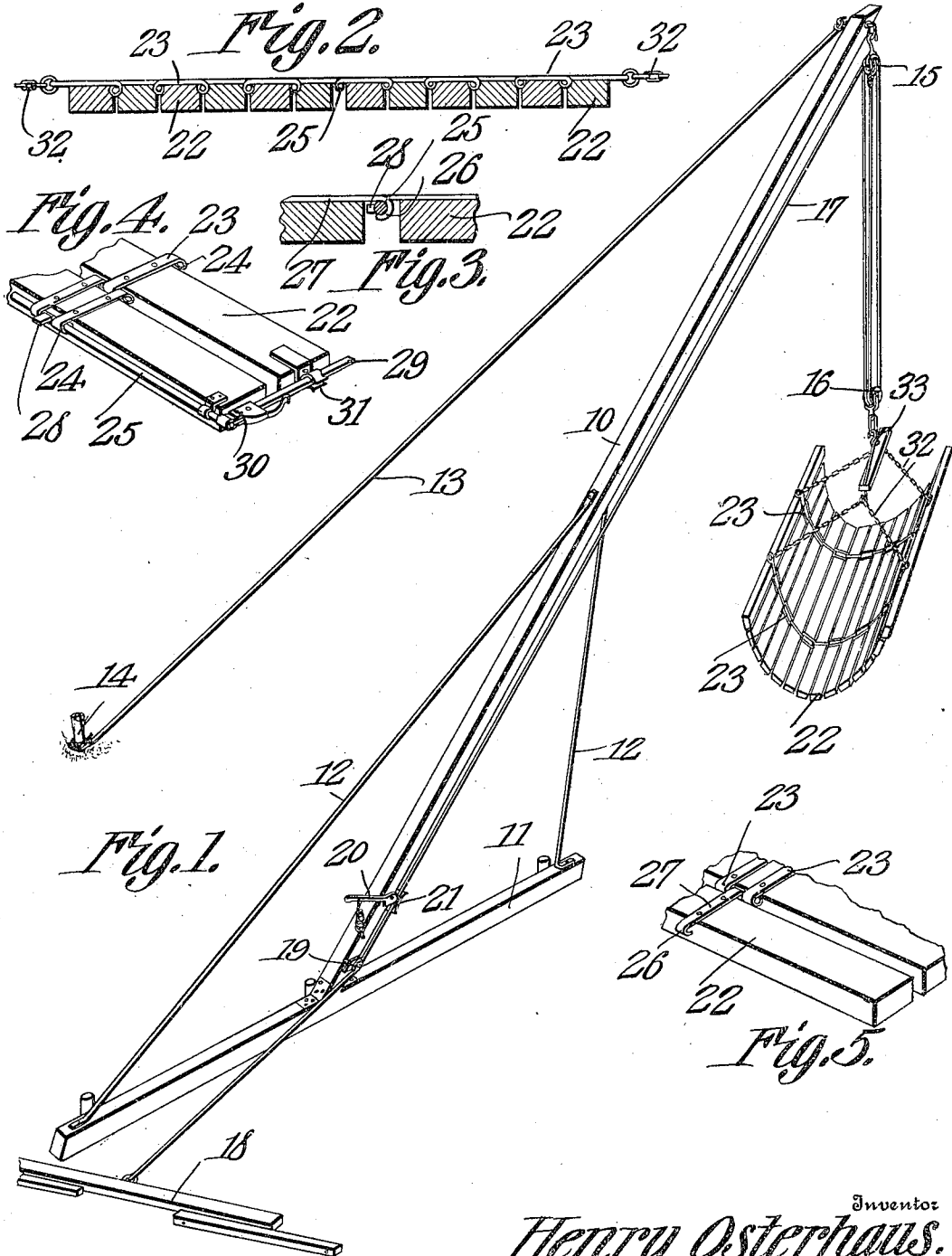


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HOISTING APPARATUS.
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949,595.

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UNITED STATES PATENT OFFICE.

HENRY OSTERHAUS, OF MITCHELL, SOUTH DAKOTA.

HOISTING APPARATUS.

949,595.

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To all whom it may concern:

Be it known that I, HENRY OSTERHAUS, a citizen of the United States, residing at Mitchell, in the county of Davison and State of South Dakota, have invented a new and useful Hoisting Apparatus, of which the following is a specification.

This invention relates to hoisting apparatus designed more particularly for use on farms for loading manure, gravel, dirt, etc., and its object is to provide an improved carrier in which the load is received, together with improved means for dumping the load.

The invention also has for its object to provide a hoisting apparatus of the kind stated which is simple in structure, and which can be easily operated.

With the foregoing objects in view the invention consists in a construction and arrangement of parts to be hereinafter described and claimed, reference being had to the drawings hereto annexed forming a part of this specification, in which drawings—

Figure 1 is a perspective view of the apparatus. Fig. 2 is a longitudinal sectional view of the parts forming the sling or carrier which receives the load to be hoisted. Fig. 3 is a sectional detail showing the separable fastening between the sling sections. Fig. 4 is a perspective view showing the means for operating the separable connection. Fig. 5 is a detail in perspective showing the hinge connection between the slats forming the sling.

Referring specifically to the drawings, 10 denotes a mast suitably supported on a base 11. Between the mast and the base extend braces 12, and the mast is also guyed by a rope or cable 13 connected at one end to the top thereof, and at the other end to a stake 14 driven into the ground. The mast is set slantingly so that the sling can be raised high enough for a wagon or spreader to pass thereunder, and the load dumped into the wagon or spreader. At the top of the mast is mounted a standing block 15 which supports the fall block 16. The hauling line of this hoisting tackle is indicated at 17. The hauling line is adapted to be operated by a team, and for this purpose suitable draft devices 18 are connected to the hauling end thereof. At the lower end of the mast is a guide pulley 19 over which the hauling line passes, and adjacent to the pulley there is pivoted to the mast a cam clamp 20 op-

erating in connection with a stationary jaw 21 for locking the hauling line, in order that the load may be held stationary preparatory to being dumped.

The load to be hoisted and dumped is received in a carrier which is in the nature of a sling composed of a series of slats 22 which are hinged together at their longitudinal edges. An ordinary form of strap hinge 23 may be employed for this purpose. The sling is in two sections, a separable connection being provided therebetween, in order that the load may be dumped.

The separable connection between the sling sections comprises straps attached to the end slat of one of the sections, and projecting a short distance therefrom, the projecting ends of these straps being formed into eyes 24 in which a rock shaft 25 is mounted. At suitable intervals, the rock shaft passes through hooks 26 formed on straps 27 secured to the end slat of the other sling section. From the rock shaft 25 project fingers 28, the number of such fingers corresponding to the number of hooks 26, and said fingers being so located that they engage the ends of the strap 27 which are formed into the hooks 26, upon rotating the rock shaft. When the rock shaft is thus turned, the fingers, upon engaging said ends of the straps 27 force the hooked ends 26 off the rock shaft, whereupon the sling sections are disconnected. The rock shaft 25 is operated by means of a hand lever 29 which is pivotally connected to one end thereof as indicated at 30 so that when it is not in use it may be swung out of the way against the edge of the sling, where it is held between a pair of spring fingers 31 as shown in Fig. 4 of the drawings. To the longitudinal side edges of the sling, is made fast one end of chains 32, the other end of said chains being connected to a cross bar 33 which is suspended from the fall block 16.

The operation of the apparatus will be apparent from the foregoing description, but it may be summarized as follows: After the sling is filled with the material to be hoisted and loaded on the wagon, spreader or the like, said load is elevated by the team pulling on the hauling line 17. When the sling reaches the desired elevation, the team is stopped, and the hauling line is locked by applying the cam clamp 20. The hand lever 29 is then withdrawn from between the spring fingers 31, and swung in a direction to rotate the rock shaft 25 so as to disconnect

the sling sections as already described, whereupon said sections open or separate, and the load is dumped. After the load has dumped, the sling sections will be connected, and the sling is then ready for the next load. The connections between the sections is made at the middle point of the sling. Inasmuch as the slats 22 of which the sling is composed are hingedly connected, it will be seen that the sling is flexible, and will bow downwardly under its weight as shown in Fig. 1, and it therefore extends partly around and incloses the sides of the load whereby it is more securely held in the sling.

A sling constructed as herein described is easily loaded, and by making it in two separable sections, the load can be quickly and easily dumped, the weight thereof swinging the sections apart, after the hooks 26 are disengaged from the rock shaft 25.

What is claimed is:

1. A sling for hoisting apparatus comprising separable sections, each composed of a series of slats hinged together at their longitudinal edges, and hoisting devices connected to the sling.

2. A sling for hoisting apparatus comprising separable sections, and a connection between the sections comprising a rock shaft carried by one of the sections, fingers projecting from the rock shaft, hooks carried by the other section and engageable with the

rock shaft, said hooks being located so as to be disconnected from the rock shaft by the engagement of the fingers with the hooks, and means for operating the rock shaft.

3. A sling for hoisting apparatus comprising a series of slats hinged together at their longitudinal edges, and said sling being composed of separable sections, a connection between said sections comprising a rock shaft carried by one of the sections, fingers projecting from the rock shaft, hooks carried by the other section and engageable with the rock shaft, said hooks being located so as to be disconnected from the rock shaft by the engagement of the fingers with the hooks, and means for operating the rock shaft.

4. A sling for hoisting apparatus comprising separable sections, each composed of a series of slats hinged together at their longitudinal edges, a connection between the sections comprising a rock shaft carried by one of the sections, hooks on the other sections engageable over the rock shaft, fingers projecting from the rock shaft into the path of which fingers the hooks extend, and means for operating the rock shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HENRY OSTERHAUS.

Witnesses:

A. S. REID,

J. P. MICHELS.