

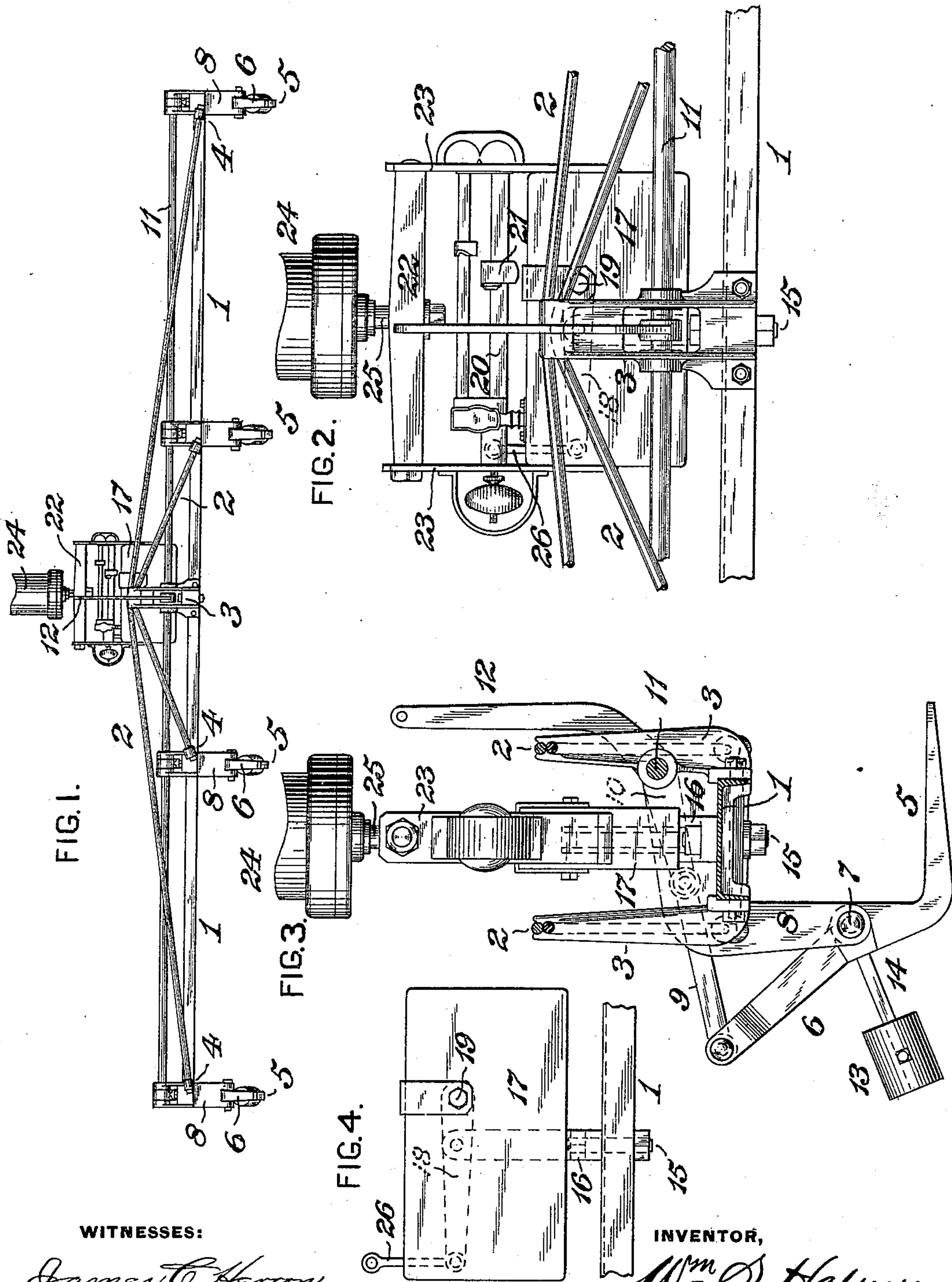
No. 667,440.

Patented Feb. 5, 1901.

W. S. HALSEY.
CONVEYING APPLIANCE.

(Application filed Nov. 2, 1900.)

No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

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CONVEYING APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 667,440, dated February 5, 1901.

Application filed November 2, 1900. Serial No. 35,222. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HALSEY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Conveying Appliances, of which improvement the following is a specification.

The object of my invention is to provide a simple, convenient, and inexpensive appliance by the employment of which a plurality of skelps, bars, or other metal articles may be picked up at a desired point or points and conveyed to and delivered at a desired point or points.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side view in elevation of a conveying appliance illustrating an application of my invention; Fig. 2, a similar view, on an enlarged scale, of the middle portion of the same; Fig. 3, a transverse section taken adjacent to the center, and Fig. 4 a side view in elevation of the scale-case detached.

In the practice of my invention I provide a substantial main frame 1, which is preferably, as shown, in the form of a channel-beam having its flanges turned downwardly and is stiffened and strengthened by truss-rods 2, passing through eyes in central struts 3, bolted to the flanges of the beam at each side of its middle portion and clamped by nuts engaging screw-threads on their ends to sockets 4, fixed to the flanges of the beam. The skelps or other metal articles which are to be handled by the machine are supported upon a plurality of carriers, which are metal bars having a lower arm 5, standing normally in a substantially horizontal position, and an upper arm 6, which adjacent to the lower arm 5 is at or about a right angle thereto and is for the remainder of its length extended outwardly or away from the adjacent end of the arm 5. The upper arms 6 of the carriers are pivoted by bolts 7 to hangers 8, secured to one of the flanges of the beam 1, and their upper ends are coupled by links 9 to arms 10, fixed upon a dumping-shaft 11, which is journaled in the upper portions of the hangers 8. A dumping-lever 12, having an eye in its upper end for the connection of

an operating cord or chain, is fixed upon the shaft 11, preferably at the middle thereof.

The carriers are, when unloaded, brought to and normally held in position with their lower arms 5 standing substantially horizontally by counterbalances 13, fixed upon arms 14, projecting outwardly from the upper arms 6, adjacent to their pivots 7. The links 9 normally stand with their end coupling-pins in line with the axis of the dumping-shaft 11, and when a load is placed upon the lower arms 5, tending to depress the outer end thereof, the carrier is locked in position by the toggle-joint action of the links 9 and dumping-shaft arms 10. By moving the upper end of the dumping-lever 12 outwardly the links 9 and arms 10 are moved out of line and the lower arms 5 are depressed by the weight of the load thereon, thus permitting the same to be dropped at any desired point. Upon the release of the load from the arms 5 the counterbalances 13 return them to their normal horizontal position, in which they are locked by the toggle-joint connections to the clamping-shaft above described.

The main frame 1 is connected at its center by a bolt 15 to a standard 16, which in the instance shown extends upwardly into the box or case 17 of a scale or weighing mechanism of any known and preferred construction, which may desirably be connected to the appliance, although not essential thereto, for the purpose of enabling the weight of the load to be ascertained before its delivery at a desired point. The weighing mechanism does not in and of itself constitute part of my present invention and need not therefore be herein at length set forth. The upper end of the standard 16 is coupled to an unequal armed lever 18, the shorter arm of which is pivoted by a bolt 19 to the scale-case 17 and the longer arm coupled by a link 26 to a scale-beam 20, carrying a weight or poa 21. The scale-case is provided at its top with a horizontal bar 22, fixed to standards 23 on the ends of the case, said bar providing for the attachment of the main frame 1, in this instance through the intermediate connected scale-case, to any suitable and preferred traveling conveyer, which is shown as a fluid-pressure cylinder 24, the piston-rod 25 of which is connected to the

bar 22 of the case and which is adapted to raise and lower the main frame and its load and to traverse longitudinally therewith in the ordinary manner upon an elevated track 5 or to be moved by a traveling crane. When a weighing mechanism is not employed, the main frame is connected centrally to the traveling conveyer in any suitable known manner.

In operation a load of any desired number 10 of skelps or other articles is placed upon the lower arms 5 of the carriers, moved by the conveying appliance to the desired point of delivery, and there deposited by the movement of the dumping-lever, as above explained.

15 The material to be conveyed may be either picked up from a scale on which it has been weighed or if the appliance is, as shown, provided with a connected weighing mechanism it may be weighed when resting on the carriers.

20 I claim as my invention and desire to secure by Letters Patent—

1. In a conveying appliance, the combination of a main frame, a plurality of carriers pivotally connected thereto, a dumping-shaft 25 journaled on the main frame, connections coupling the carriers and dumping-shaft, and a dumping-lever connected to the dumping-shaft.

2. In a conveying appliance, the combination 30 of a main frame, a plurality of carriers pivotally connected thereto, a dumping-shaft journaled on the main frame, toggle-joint connections coupling the carriers and dumping-shaft, and a dumping-lever connected to the 35 dumping-shaft.

3. In a conveying appliance, the combina-

tion of a main frame, a plurality of carriers pivotally connected thereto, a dumping-shaft journaled on the main frame, connections 40 coupling the carriers and dumping-shaft, counterbalances fixed to arms on the carriers, and a dumping-lever connected to the dumping-shaft.

4. In a conveying appliance, the combination of a metal-bar main frame, lateral truss- 45 rods connected thereto, a plurality of carriers pivotally connected to the main frame at one side thereof, a dumping-shaft journaled on the opposite side thereof, connections coupling the carriers and dumping-shaft, and a 50 dumping-lever connected to the dumping-shaft.

5. In a conveying appliance, the combination of a metal-bar main frame, a plurality of carriers, each having a lower supporting- 55 arm and an upper arm at an angle thereto, pivot-bolts coupling said carriers to hangers upon one side of the main frame, counterbalances fixed to the upper arms of the carriers, a dumping-shaft journaled in bearings on the 60 opposite side of said frame and having an arm opposite each of the carriers, links coupling the upper arms of the carriers to the arms of the dumping-shaft and having their end pivots normally in line one with the other and 65 with the axis of the dumping-shaft, and a dumping-lever connected to the dumping-shaft.

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