

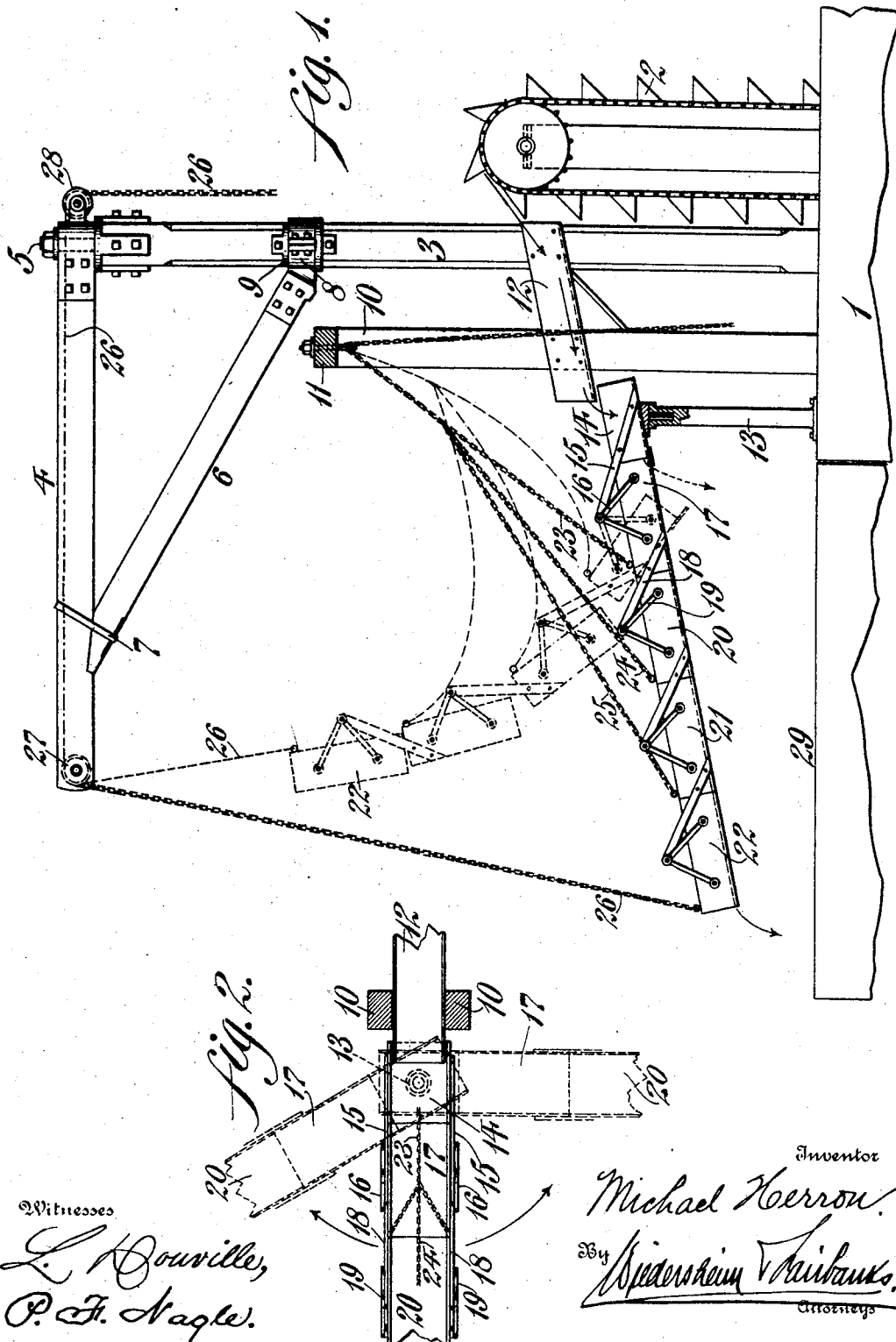
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M. HERRON.
CHUTE FOR DREDGING MACHINES.

APPLICATION FILED MAY 25, 1904.

NO MODEL.



UNITED STATES PATENT OFFICE.

MICHAEL HERRON, OF BORDENTOWN, NEW JERSEY.

CHUTE FOR DREDGING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 771,069, dated September 27, 1904.

Application filed May 25, 1904. Serial No. 209,662. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL HERRON, a citizen of the United States, residing at Bordentown, Burlington county, State of New Jersey, have invented a new and useful Improvement in Chutes for Dredging-Machines, of which the following is a specification.

My invention relates to delivery-chutes for dredging-machines.

It comprises means for laterally adjusting the chute, so that it may deliver at different points in the body of the scow.

It further consists of novel features of construction, all as will be hereinafter fully set forth.

My present invention is an improvement over that granted to me February 19, 1889, No. 397,985, for an extension-chute, which was, however, incapable of lateral movement.

Figure 1 represents a partial elevation and partial sectional view of the device embodying my invention. Fig. 2 is a fragmentary plan view of the chute, showing its different positions.

1 designates the deck of a dredge provided with an elevator of any desired form, shown as an endless chain carrying a plurality of buckets 2. From the deck 1 rises a mast 3, having a gaff 4 pivoted on a bolt 5 at its upper end. A brace 6 is secured at its outer end by a strap 7 to the gaff 4 and has at its inner end a throat-strap 8, bearing on a collar 9, suitably secured on the mast 3. Between the mast 3 and the edge of the dredge is a post 10, shown as in two parts united by a head 11. Secured to the mast 3 and post 10 is a main chute 12, adapted to receive the mud or earth from the buckets 2, as shown by the arrow in Fig. 1. Adjacent the post 10 and between the post and the edge of the deck is a column 13, pivotally mounted in the upper end of which is a chute extension 14. From the extension 14 extends outwardly and upwardly a pair of arms 15, to the outer end of which is pivoted a yoke 16, carrying a second chute extension 17. In like manner arms 18 on the extension 17 carry a yoke 19, supporting a third extension-piece 20. Other extension-sections, 21 and 22, are similarly supported, as shown in Fig. 1. From

eyes at the outboard ends of each of the extension-chutes 17, 20, and 21 chains 23, 24, and 25 pass to an eye at the head 11 of the post 10. From the outboard end of the last extension 22 a chain 26 rises, passing over idlers 27 28 at the ends of the gaff 4 and downward to a winch, (not shown,) which may be of any desired form.

The operation is as follows: When it is desired to deposit the mud or earth raised by the buckets 2 at the side of a scow 29 farthest from the dredge 1, the parts of the device are set as shown in Fig. 1 of the drawings. It is obvious that the earth will pass through the main chute 12 and through the extension-chutes 14, 17, 20, and 22 and drop into the scow, as shown by the arrows, Fig. 1. When it is desired to fill the side of the scow nearer the dredge, the extension-chutes 17, 20, 21, and 22 are successively raised, by means of the chain 26, to the position shown in dotted lines, Fig. 1. It is evident that in this case the earth will pass through the chutes 12 and 14 and drop as shown by the dotted arrow in Fig. 1. It is evident that to deposit the earth midships of the scow 29 the outer sections 21 and 22 of the chute are hoisted by means of the chain 26, leaving the sections 17 and 19 in their operative position. The device thus far described is in many respects similar to that shown in my former patent above named. In practice, however, it is found that the labor and expense of shifting the scow alongside of the dredge is considerable, this shifting being required in my old device to deposit the earth fore and aft of the scow. With small scows this shifting is sometimes done by hand; but with the large scows now in use it is necessary to keep a tug in almost constant attendance on the scow to shift her as required. To overcome this difficulty, I have pivoted the inboard extension-chute 14 on the column 13 and hung the entire extension part of the chute from the chain 26, secured at its outer end and running to a pivoted gaff 4. As clearly shown in dotted lines, Fig. 2, the extension-chute may be swung bodily either directly fore or aft of the scow or at an angle with its sides. The earth from the main chute 12 will always drop into the

extension 14 and will be conveyed thence through all or some of the sections 17, 20, 21, and 22 to the desired point, it being of course obvious that one or more of the outer sections may be successively raised by means of the chain 26 without regard to the direction in which the extension-chute may at the time be pointing. It will be seen that by the combination of the successively-raised sections and of the swinging chute I am able to cover practically every point of the scow, so as to deliver the load in a very even manner without producing any strain and without shifting the scow.

15 It is evident that various changes may be made by those skilled in the art which may come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

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

1. A delivery-chute comprising a main section, a plurality of sections composing a second section forming an extension of said main section and operatively connected therewith, and independent pivotally-mounted means for supporting said second section, whereby it may be laterally deflected.

2. A delivery-chute comprising a main section, a plurality of sections forming an extension of said main section and operatively connected therewith, and independent pivotally-mounted and vertically-adjustable means for supporting said extension, whereby it may be laterally and vertically deflected.

3. A delivery-chute comprising a main section, a plurality of longitudinally-connected

sections forming an extension of said main section and operatively connected therewith, and separate pivotally-mounted means for supporting the inboard and outboard ends of said extension, whereby it may be laterally deflected.

4. A delivery-chute comprising a main section, a plurality of longitudinally-connected sections forming an extension of said main section and operatively connected therewith, and separate pivotally-mounted means for supporting and vertically adjusting the inboard and outboard ends of said extension, whereby it may be laterally and vertically deflected.

5. A delivery-chute comprising a main section, a mast, a gaff pivotally connected with said mast and a plurality of longitudinally-connected sections operatively connected to said main section and forming an extension thereof, the inner of said extension-sections being pivotally supported, the outer of said sections being supported from said gaff, whereby they may be laterally deflected.

6. A delivery-chute comprising a main section, a mast, a gaff pivotally connected with said mast, a plurality of longitudinally-connected sections operatively connected with said main section and forming an extension thereof, the inner of said extension-sections being pivotally supported and the outer of said sections being supported from said gaff and guy-chains connected to certain of said extension-sections, whereby said extension may be laterally and vertically deflected.

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Witnesses:

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