G. B. HOLBERT.

COAL TRIMMING DEVICE.

APPLICATION FILED APR. 20, 1918.

1,382,359.

Patented June 21, 1921.

2 SHEETS—SHEET 1.

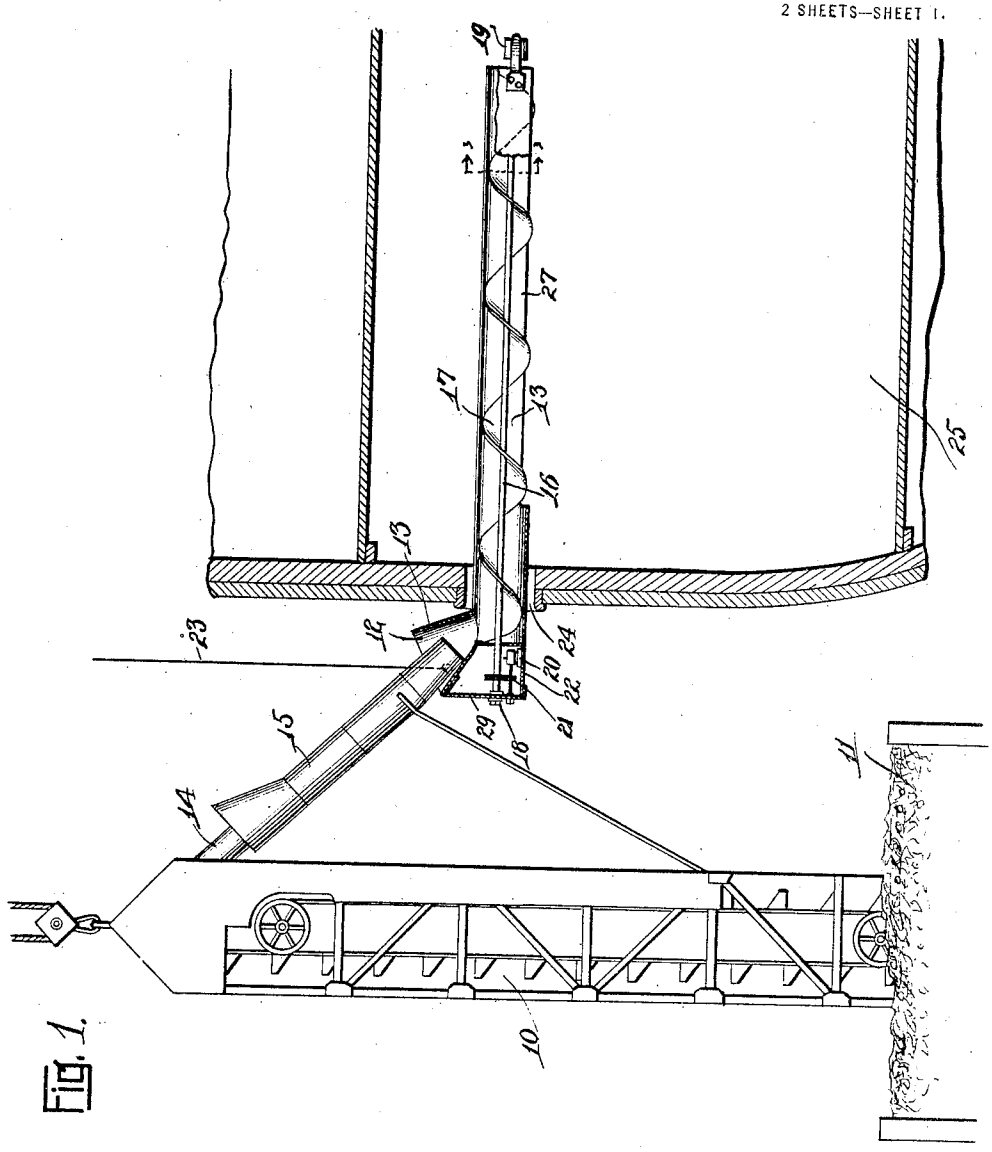


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

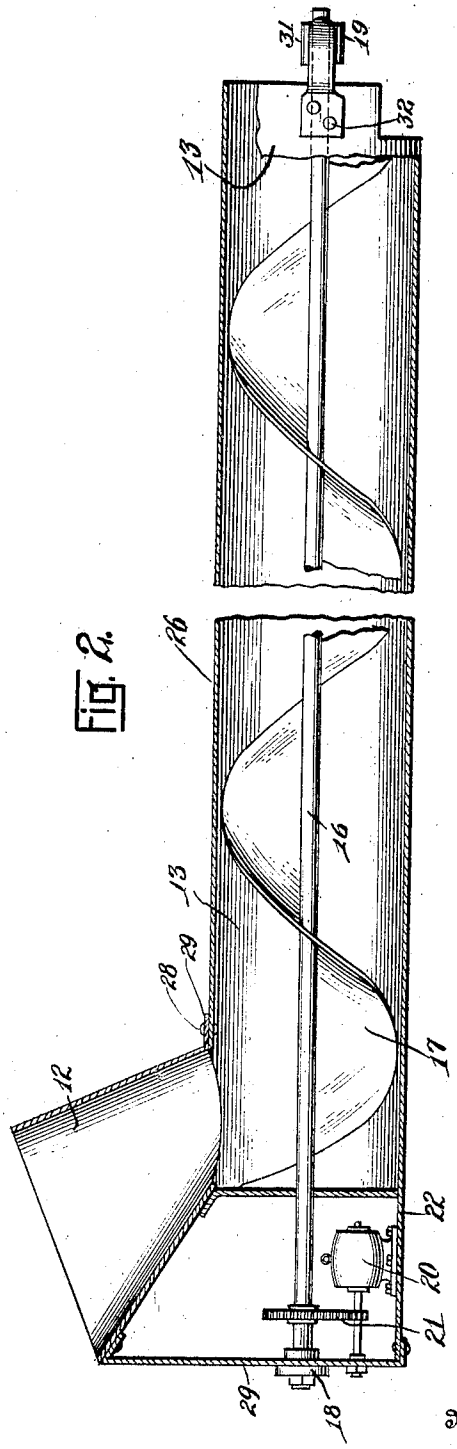
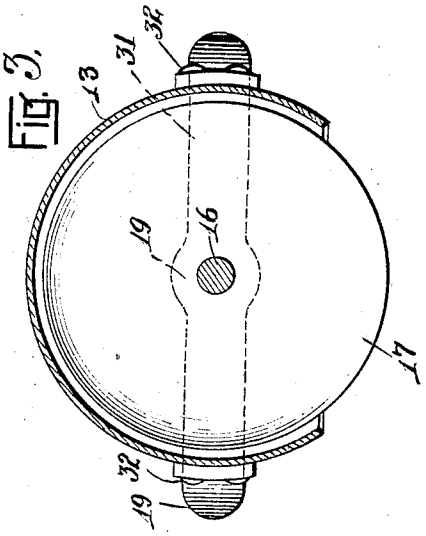


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE B. HOLBERT, OF NEW YORK, N. Y.

COAL-TRIMMING DEVICE.

1,382,359. Specification of Letters Patent. Patented June 21, 1921.

Application filed April 20, 1918. Serial No. 229,734.

To all whom it may concern:

Be it known that I, GEORGE B. HOLBERT, citizen of the United States, and a resident of the borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Coal-Trimming Devices, of which the following is a specification.

This invention relates to apparatus for coaling vessels, and is especially adapted for use in distributing the coal from lighters or barges into the bunkers of vessels in port making ready to sail.

The present invention constitutes a development of and an improvement on the apparatus forming the subject matter of the prior patents to Louis A. De Mayo, No. 797,364, dated August 15, 1905, and No. 881,429, dated March 10, 1908, and is directed particularly to an improved apparatus for distributing the coal into the various bunker-hatches of the ship.

In the prior patents referred to above a distributer is provided for use in conjunction with a coal elevator, which may be set up for use in the coal port of the ship and then disassembled and removed. In the present invention my prime object is to provide a distributer to replace the laborious and expensive operation of hand trimming, but which shall be adapted to be readily inserted into one of the coal port-holes, and readily removed when the bunker is filled as desired, and then swung into another port-hole ready for immediate use in filling another bunker.

A further object is to provide in conjunction with the coal elevator a coal distributer which shall be of such construction as to enable a coal bunker to be filled rapidly and evenly, the coal being distributed practically evenly throughout the whole space thereof, and not piled up at one point to be thereafter shoveled or otherwise evenly distributed.

To attain these and other objects and advantages of this invention to hereafter appear, I provide a suspended coal distributer, preferably in the form of a screw conveyer, whereby the coal is conveyed from the elevator into the bunker, and distributed therein, and then readily swung out from the port-hole and into another immediately ready for use in filling another bunker.

Figure 1 is an elevational view showing the coal elevator such as described in the prior applications herein referred to above with my improved distributing means in place in the port-hole of a ship ready to be coaled.

Fig. 2 is a longitudinal sectional view of a screw conveyer embodying my invention showing the means for driving the same and a preferred form of hopper, and

Fig. 3 is a section taken along line 3—3 of Fig. 1.

Referring in detail to the drawing 10 indicates a coal elevator adapted to conduct the coal from the hold 11 of the barge or lighter which is drawn up alongside the steamer to be coaled. From the top of the elevator the coal is conducted into the hopper 12 of the distributer 13 by any suitable means such as the spout 14 and discharge chute 15. The hopper 12 is preferably not conical but preferably formed with trapezoidal walls such as shown at 13 so that the fall of the coal through the chute is first broken by striking against the walls of the hopper. The impact is thus substantially reduced so that the coal does not strike against the knives of the distributer, with full impact. In this way the knives are better preserved and not damaged by the coal discharge.

In Fig. 2 I have shown a screw conveyer comprising a shaft 16 and the spiral blades 17. The shaft is journaled in bearings 18 and 19 and is driven by a motor 20, preferably electric, and gearing 21. It will be noted that I have shown the motor as mounted on a platform 22 secured to the hopper and conveyer so that the distributing means is a complete unit in itself which may be suspended by a cable such as 23 from a boom on the lighter or barge.

In Fig. 1 I have shown the distributer in position in a port-hole 24 leading to the bunker 25 as will be readily understood. When this bunker is properly filled the distributer may be readily swung out from the port-hole and over and into another port-hole in a very simple and quick operation, the conveyer and the driving means, therefor, being immediately ready for further use.

In Fig. 2 I have shown a screw conveyer, the mechanism of which is inclosed in the cylindrical body 26 and the coal as it enters the conveyer from the hopper is forwarded on by the knives in a spiral motion and finally drops into the bunker from the forward end. In Fig. 1, however, I have shown a partially inclosed conveyer, the bottom being opened as at 27 from a point beyond the porthole. With this modified form of con-

veyer, it will be readily seen that the coal as it is drawn along by the knives at the same time discharges into the bunker for substantially the major portion of the length of the conveyer. When the coal in the bunker has reached the level of the conveyer the delivery and distribution is then had of course only from the forward end.

Many ways will readily occur to one skilled in the art for assembling and securing the parts of the conveyer so as to form a unitary portable distributer. In the embodiment of the invention shown in the drawings the hopper is suitably secured at one end at the top of the body of the conveyer by fastening means such as the rivets 28 passing through an extension 29 of the body or the hopper. The platform is similarly made part of the conveyer by a vertical brace 30 similarly secured thereto and to the hopper, thus serving at the same time to brace the hopper. Any suitable form of bearing for the shaft 16 may be provided at each end of the conveyer. In the form shown in the drawings I provide a casting 31 secured as at 32 to the body of the conveyer at the forward end, and to the platform at the rear end.

It will thus be clear that I have provided in conjunction with a coal elevator, a coal conveyer for distributing the coal into the bunker-hatches of a ship which effectively does away with the hand trimming process, distributes the coal rapidly and evenly in the bunker, and is provided with driving means forming a part of the whole distributing unit and which may be readily inserted into or removed from a port-hole in immediate readiness for operation.

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

1. A portable distributer comprising a unitary construction embodying a casing having an opening in its under side extending a considerable portion of its length, a hopper, a spiral conveyer extending from said hopper through said casing, and a motor connected to said conveyer in geared relation.

2. A portable distributer comprising a unitary construction embodying a casing having an opening in its under side extending a considerable portion of its length, a housing, a hopper, a spiral conveyer extending from said hopper through said casing, and a motor in said housing connected to said conveyer in geared relation.

3. A portable distributer comprising a unitary construction embodying a casing having an opening in its under side extending a considerable portion of its length, a spiral conveyer extending through said casing and means for driving said conveyer.

Signed at New York city, in the county of New York and State of New York, this 16th day of April, A. D. 1918.

GEO. B. HOLBERT.

Witness:
NATHAN MESSINGER.