J. WALKER.

Grain-Distributer.

No. 162,591. Patented April 27, 1875.

Fig. 2.

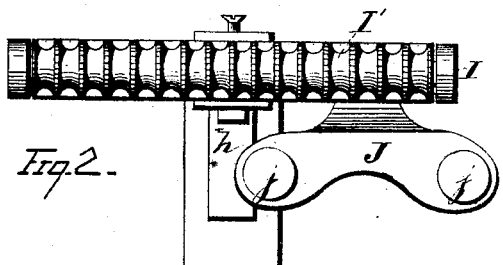
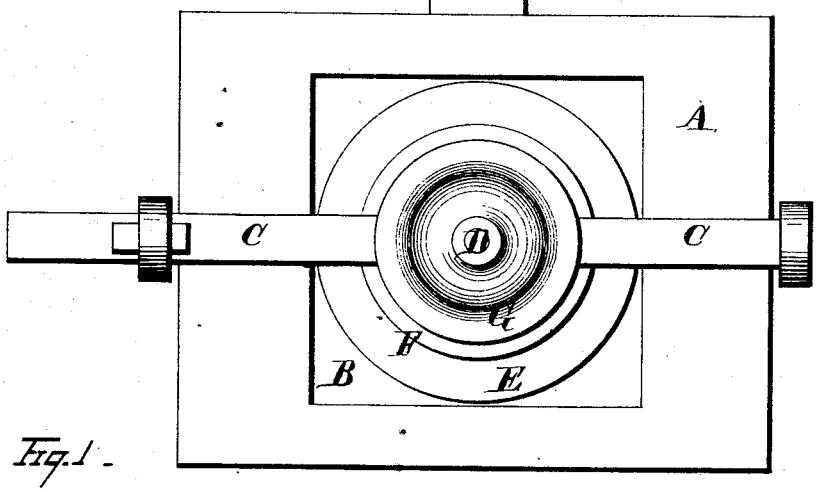
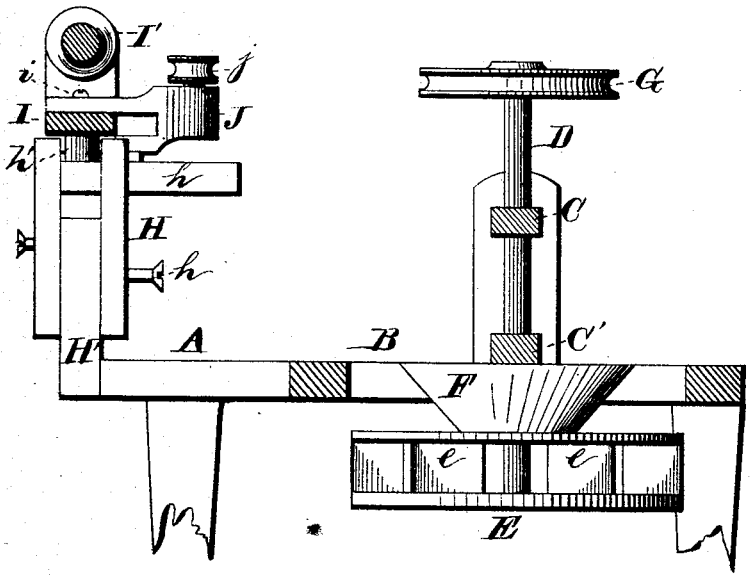


Fig. 1.





WITNESSES

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JAMES WALKER, OF NEW YORK, N. Y.

IMPROVEMENT IN GRAIN-DISTRIBUTERS.

Specification forming part of Letters Patent No. **162,591**, dated April 27, 1875; application filed March 19, 1875.

To all whom it may concern:

Be it known that I, JAMES WALKER, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Grain-Distributers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved grain-distributer.

In the drawings, Figure 1 is a section of one of the decks of a ship at the hatchway, showing my apparatus in position; Fig. 2, a plan view of the same.

My invention has for its object the construction of an apparatus to be placed in the holds of ships to distribute or scatter the grain which the vessel is being loaded with as it is delivered into the vessel, instead of delivering the grain in a heap and having it removed by hand, as is customary, thus, to a great extent, lessening the manual labor, and consequently cost, of ship loading.

A is a portion of a ship or other vessel, and B the hatchway or opening therein. Over the hatchway B is placed and secured a removable and adjustable frame, C C′, of any appropriate or desired construction, which supports a vertical shaft, D. On the lower part of this shaft is a wheel, E, which is constructed something on the same principle of a water-wheel, with straight, curved, or other formed blades *e*, and open central portion *e′*. F is a hopper placed over the wheel E, and communicating directly with the center of the wheel. G is a pulley on the end of the shaft D, and by which the wheel E is revolved. H is a frame secured by a pin or set-screw, *h*, to a vertical post, H′, which post may be secured to the ship or other appropriate place. On the top of the frame H is secured by a center pin, *h′*, a frame, I, which turns loosely on the pin *h′*, and within this frame I is journaled or mounted a pulley-shaft, I′. Secured by a set-screw, *i*, to the frame I is a swinging block or piece, J, on which are journaled or mounted two pulleys, *j*. The driving-band or the bands from the elevator pass over the pulley-shaft I′, around the pulleys *j*, and around the pulley G on the shaft D; thus motion is communicated to the wheel E.

The object of thus constructing and securing the frames H I J, and making them in a limited degree movable or swinging, is to allow a slight movement or play of the parts, and consequently permit the same movements to be made by the bands. Thus the different parts and bands are always kept or brought in a line, or in relative position one with the other, and with the pulley G on the wheel-shaft D, to allow free and easy movement of the driving-band, no matter how much or in what direction the ship is moved or oscillated in the water, the parts always automatically adjusting themselves relatively to the ship's movements.

The operation is as follows: The grain or other material to be loaded into the ship's hold is delivered to the hopper F, and into the interior of the wheel E. A rapid rotary motion is given to the wheel E, which may be by bands from the elevator, passing over and around the pulleys I′, *j*, and G. Thus, as the grain and material enters the wheel through the hopper, it is thrown off or scattered by centrifugal force or action of the wheel in all directions around the hold or ship's space.

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

1. The combination of the movable and pivoted frames H I J, as and for the purposes described.

2. The adjustable and removable framework or support C C′, for supporting the shaft D, in combination with the wheel E, substantially as described.

3. The device or mechanism herein described for distributing grain in the holds of ships, consisting of the wheel E, hopper F, frame C C′, frames H I J, and pulley G I′ *j*, all constructed, arranged, and adapted to operate as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of March, 1875.

JAMES WALKER.

Witnesses:
WM. H. PEARSON, Jr.,
WM. E. FLETCHER.