No. 633,040. Patented Sept. 12, 1899.

# F. R. REED.

## SAND WASHER, DRAINER, AND ELEVATOR.

(Application filed May 3, 1899.)

(No Model.)

Fig. 2.

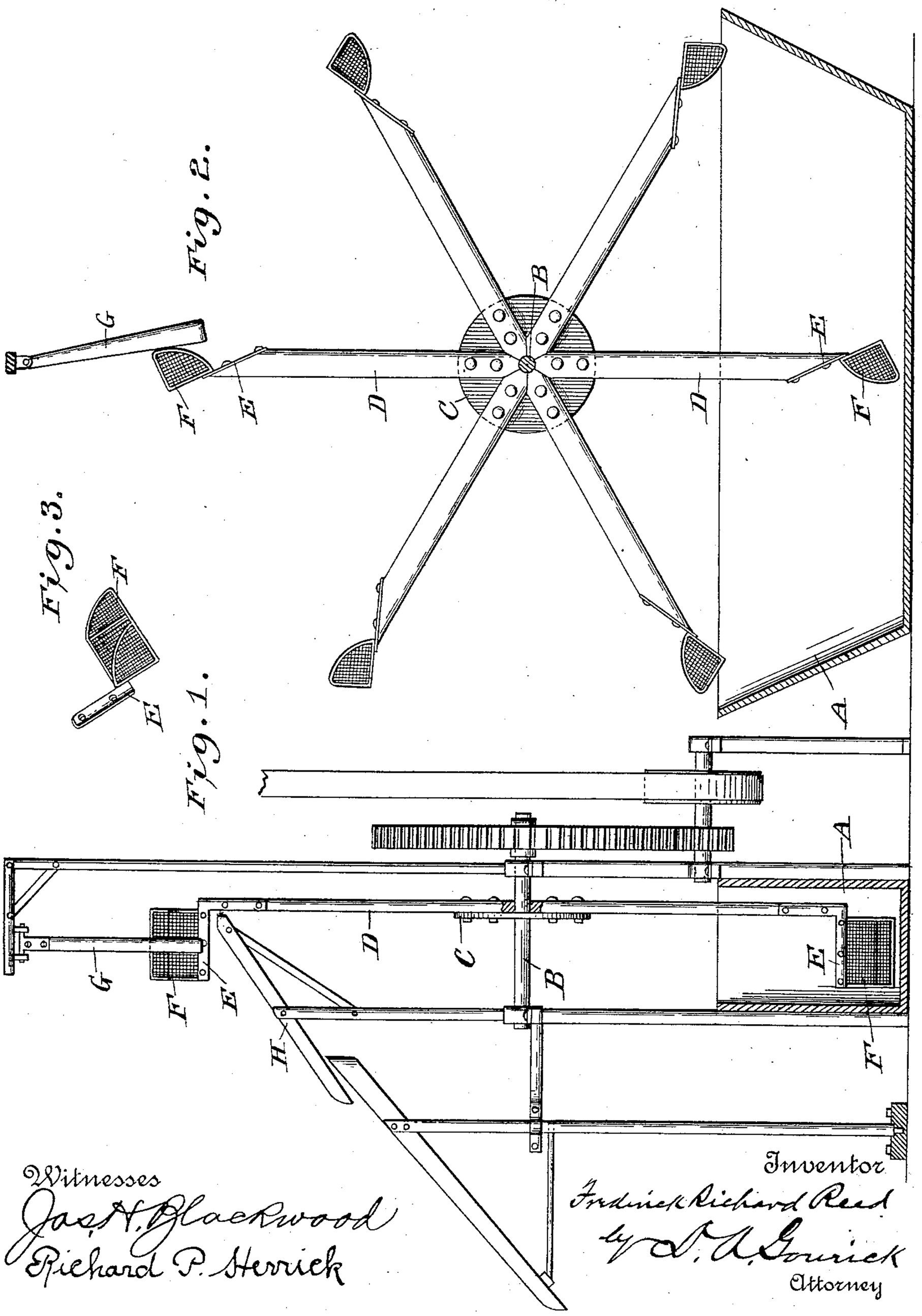


Fig. 3.




Fig. 1.




Witnesses
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# UNITED STATES PATENT OFFICE.

FREDERICK RICHARD REED, OF BERKELEY SPRINGS, WEST VIRGINIA.

## SAND WASHER, DRAINER, AND ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 633,040, dated September 12, 1899.

Application filed May 3, 1899. Serial No. 715,462. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK RICHARD REED, a citizen of the United States, residing at Berkeley Springs, in the county of Morgan and State of West Virginia, have invented certain new and useful Improvements in Sand Washers, Drainers, and Elevators, of which the following is a specification.

My invention relates to sand washers, drainers, and elevators, and has for its object to provide a simple, strong, and compact device by which sand used for the manufacture of glass and other purposes is washed, drained, elevated, and dumped within a narrow space. These objects I accomplish in the manner and by the means hereinafter more fully described in detail, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which like reference-letters indicate like parts in all the figures.

Figure 1 is a front elevation of my invention. Fig. 2 is a side elevation of same. Fig. 3 is a detail view of one of the baskets.

My invention consists of a trough A, the sides of which extend outward from the bottom at obtuse angles. Over and at right angles to this trough A a shaft B extends. The shaft B is mounted and turned in any of the ordinary modes. On the shaft B, above the trough A, a disk C is secured, and attached to this disk C and radiating from shaft B are arms D. To the outer ends of the arms D are fastened the short ends of right-angled elbows E, having secured to their long ends woven-wire baskets F. Pivotally suspended above the arms D and baskets F at a height sufficient to strike the baskets F when at the highest point as they revolve is a pendulum G, adapted to strike the baskets F and jar their contents out. A trough H, having one end inclined so as to pass under the baskets F as they pass through the upper half of the circle, is suspended and conducts the sand to a trough I, pivotally mounted under the outlet of trough H and adapted to deliver the sand at any point within a certain radius.

The operation of my invention is as follows: The sand being conducted by means of a stream of water through a sloping trough from a common washer into the trough A, the shaft B is turned and the arms D dip the baskets F into the trough A, containing the sand and water, and take up the sand, the open meshes of the baskets F allowing the water to drain from the sand, and thus dry the sand, and when the baskets are at the top and over the trough H the pendulum G strikes the baskets F and shakes out any sand still remaining in them, the trough A being supplied with a suitable overflow-pipe to carry away the water above a given height.

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

1. A sand washing, elevating and draining machine consisting of a trough adapted to receive the wet sand, a revolving shaft above said trough, radiating arms secured to said shaft, woven-wire baskets secured at right angles to the outer ends of said arms, a pendulum suspended in the vertical plane of the circle in which said baskets move and adapted to strike said baskets when at the highest point, and a trough extending under said baskets as they pass through the upper half of the circle, said trough adapted to receive the drained sand and to conduct it to a suitable receptacle and means for operating the same, substantially as shown and described.

2. A sand washing, elevating and draining machine consisting of a trough adapted to receive the wet sand, a revolving shaft above said trough, radiating arms secured to said shaft, woven-wire baskets secured at right angles to the outer ends of said arms, a pendulum suspended in the vertical plane of the circle in which said baskets move and adapted to strike said baskets when at the highest point, a trough extending under said baskets as they pass through the upper part of the circle, a pivotally-mounted trough adapted to receive the sand and deliver it at any point within a certain radius, and means for operating the same, substantially as shown and described.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

FREDERICK RICHARD REED.

Witnesses:

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