

(No Model.)

2 Sheets—Sheet 1.

S. WINSLOW.

APPARATUS FOR ELEVATING AND CONVEYING COAL.

No. 489,886.

Patented Jan. 10, 1893.

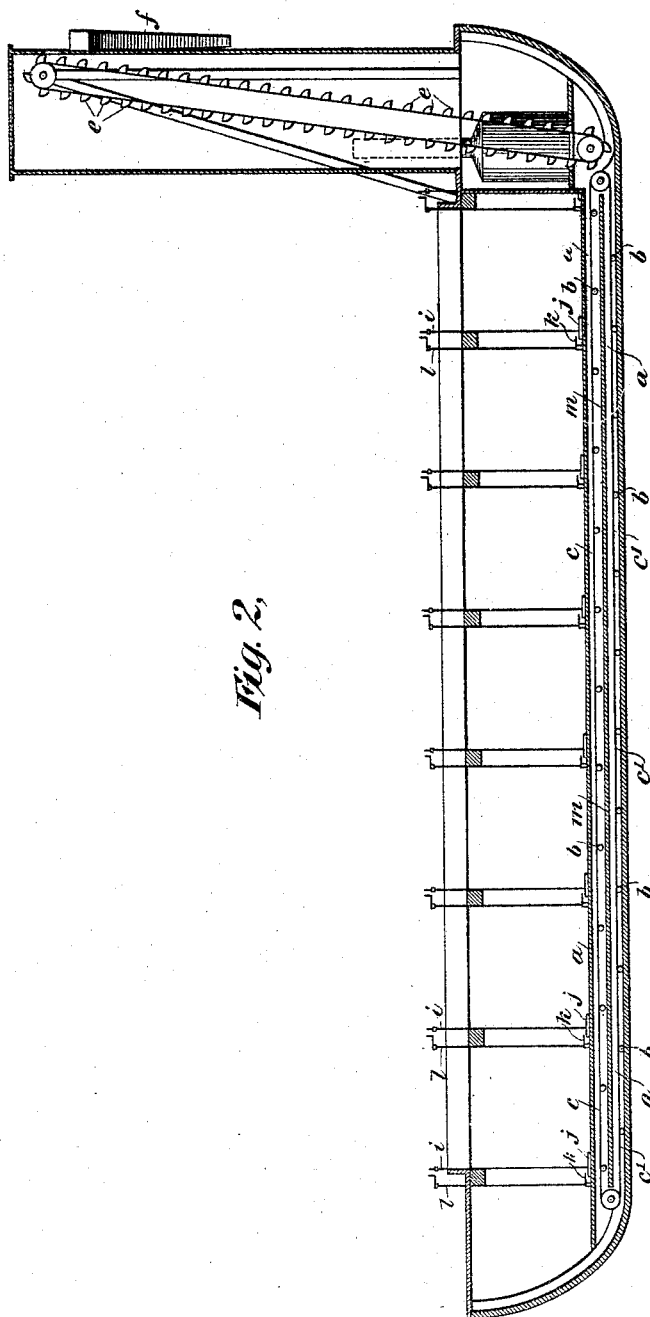


Fig. 2.

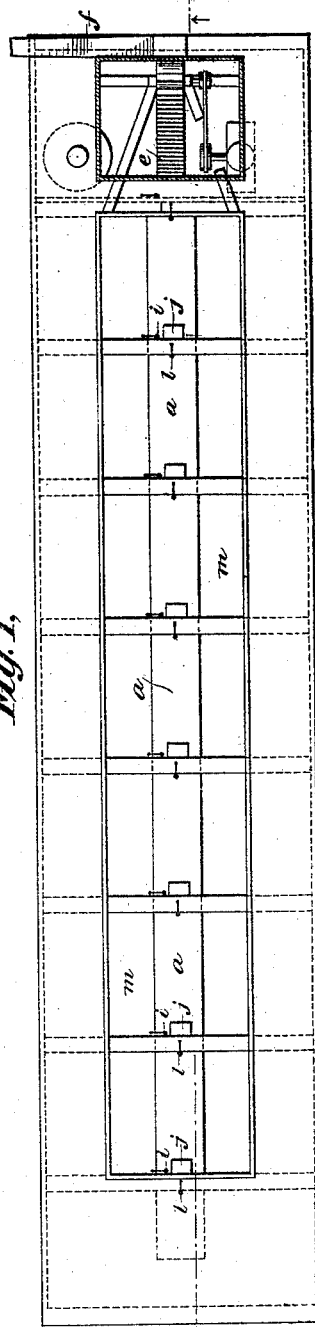


Fig. 1,

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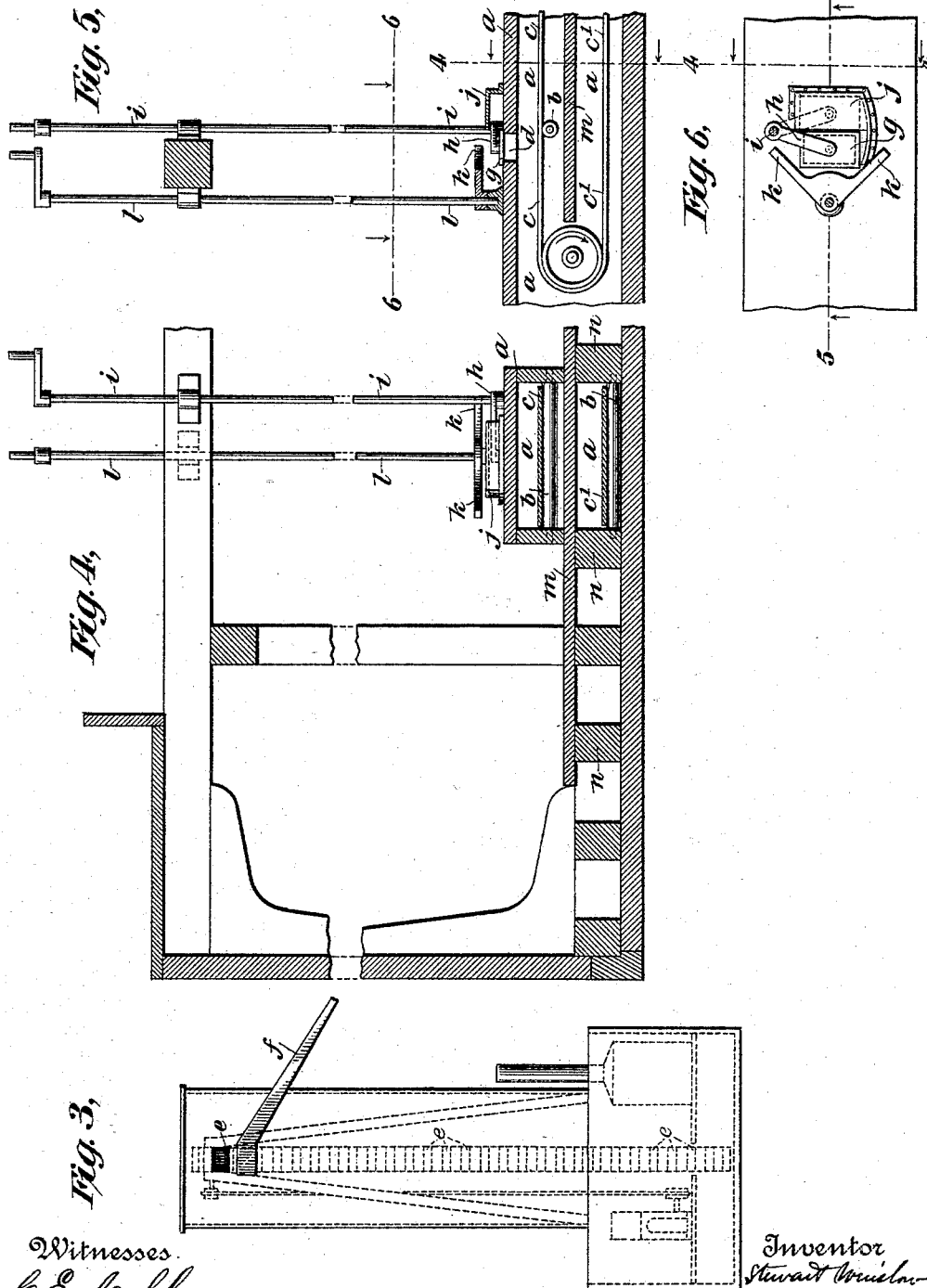
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UNITED STATES PATENT OFFICE.

STEWART WINSLOW, OF RUTHERFORD, NEW JERSEY, ASSIGNOR OF ONE-HALF TO HANS S. BEATTIE, OF NEW YORK, N. Y.

APPARATUS FOR ELEVATING AND CONVEYING COAL.

SPECIFICATION forming part of Letters Patent No. 489,886, dated January 10, 1893.

Application filed May 4, 1892. Serial No. 431,858. (No model.)

To all whom it may concern:

Be it known that I, STEWART WINSLOW, a citizen of the United States, residing at Rutherford, county of Bergen and State of New Jersey, have invented certain new and useful Improvements in an Apparatus for Elevating and Conveying Coal and the Like, of which the following is a specification, reference being had to the accompanying drawings forming a part thereof, wherein—

Figure 1 represents a plan view of a barge embodying my idea; Fig. 2, a longitudinal vertical section on the line 2—2 of Fig. 1; Fig. 3, an end view of Fig. 1; Fig. 4, an enlarged portion of Fig. 2; Figs. 5 and 6, means whereby the inlets to the conveyer may be closed and the coal agitated around the mouth of said inlet.

The object of my invention is to eliminate the element of "bridging" or blocking heretofore experienced in coal elevators or conveyers, and is more particularly adapted to coal barges, although capable of being utilized in stationary bins or "pockets."

It consists essentially of an endless belt, free from cleats or teeth of any kind, suitably hung within a box which is provided with inlets, and it also consists of an agitator located in the path of the descending coal and operated from above the coal for agitating the coal directly above the said inlets to prevent "bridging." Doors or gates are provided for said inlets which render the apparatus capable of discharge from any given portion of the cargo, thus attaining an easy "trim" to the barge and to a large extent easing the strains on the keelsons and eliminating to a great extent the "sagging" of the timbers under load, which has heretofore been so objectionable in barge service.

To more particularly describe my invention with reference to the accompanying drawings, a box *a* extends along the bottom of the barge in which rollers *b* are suitably pivoted and located and over which the endless belt *c* runs. The box *a* is provided with inlets *d* which are provided with doors or gates *g* operated by suitable means from above the load. Directly above these inlets and operating in the path of the descending coal are located

agitators *g* which may consist of arms *k* projecting from a vertical rock shaft which is operated from above the load. At the discharge end of the belt a bucket elevator of usual construction is located, into the buckets of which the coal is discharged from the belt.

As to the other parts of my apparatus nothing is new.

The operation is as follows: The coal descends to the belt through the inlets being agitated by the agitators, is carried by the belt to the buckets of the bucket elevator, is raised to the height desired and descends by gravity in a chute to its final destination.

One of the main advantages of my apparatus lies in the fact that soft coal can be carried as well as hard. Heretofore great difficulty has been experienced in this line, as soft coal is very apt to "cake" and collect itself into large masses that would effectually clog or "bridge" the inlets to the conveyer and that would be strong enough to strip any cleats or teeth from the conveyer as it passed beneath. By using the agitators the coal approaches the belt in a much finer lump and even should the agitator refuse to work or break, the belt will continue to travel without interruption, the lump of coal projecting through the said opening and forming a portion of the "bridge" only backing up the coal already on the belt. Such a state of facts would, however, be easily ascertained by watching the output at the chute.

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

In an apparatus for elevating and conveying coal and the like in combination with a bucket elevator and a conveyer box suitably gated, an agitator located in the path of the descending coal as it enters the inlet, and a conveyer consisting of an endless belt free from cleats or teeth, substantially as set forth.

STEWART WINSLOW.

Witnesses:

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FRANK F. VANDERVEER,
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