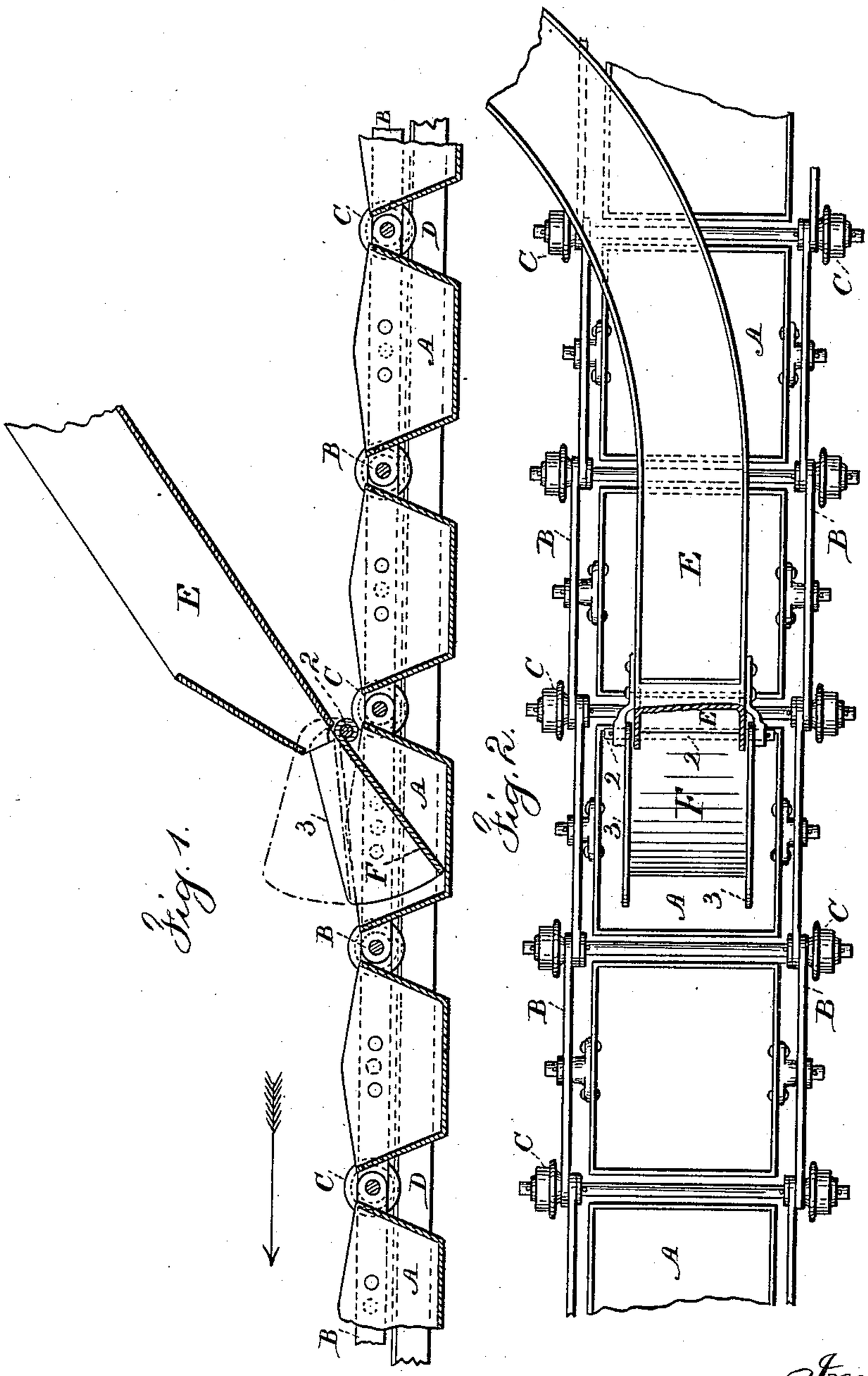
(No Model.)

C. W. HUNT.

REGULATOR FOR CONVEYERS.

No. 466,042. Patented Dec. 29, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES W. HUNT, OF WEST NEW BRIGHTON, NEW YORK.

REGULATOR FOR CONVEYERS.

SPECIFICATION forming part of Letters Patent No. 466,042, dated December 29, 1891.

Application filed June 29, 1891. Serial No. 397,806. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. HUNT, a citizen of the United States, residing at West New Brighton, in the county of Richmond, in the State of New York, have invented an Improvement in Regulators for Conveyers, of which the following is a specification.

In the handling of coal, grain, and other materials an endless chain of buckets has been made use of, the buckets being supported by rollers or wheels upon stationary tracks. An apparatus of this kind is represented in my patent, No. 442,976, dated December 16, 1890. In this class of conveyers the coal or other material has usually been allowed to run down a spout or chute and pass into the buckets as they are moved along successively beneath the lower end of such spout or chute, but difficulty has arisen in controlling the delivery of the material.

My present invention is designed for regulating the flow of the material to the conveyer automatically, so that the proper quantity will pass into each bucket or receptacle.

With these objects in view I provide a feeding chute or trough with a hinged regulator at the lower end, the parts being so constructed and proportioned that as the conveyer-buckets pass along in succession the regulator is raised and arrests the supply of the material and then it drops into the next bucket when it has moved along sufficiently far to receive the material, and then such regulator is raised again by the further movement of the bucket to stop the supply, and then it drops into the next bucket that presents itself.

In the drawings, Figure 1 is a vertical section representing my improvement, and Fig. 2 is a plan of the parts with a portion of the chute in section.

The conveyer is to be of any desired character. I have represented buckets A pivoted to the links of the chains B, and with rollers or wheels C running upon the tracks D, and the conveyer is to be moved along progressively by any suitable means. The supply chute or spout E is placed at a proper inclination, and there is a regulator F hinged at 2 to the lower end of the spout, and it is provided with sides 3 of proper height, and the hinge 2 is at a sufficient distance above the top edge of the buckets A for such buckets to pass along beneath such hinge, and the length of the regulator F is such that when it is dropped into the bucket the inclination is sufficient for the coal or other material to run down the same and pass into the bucket and properly fill the same; but as the conveyer-bucket passes along beneath the regulator such regulator is raised into nearly a horizontal position, as indicated by dotted lines in Fig. 1, and the coal or similar material will not slide down the same, and such material will accumulate upon the regulator and between the sides thereof in such a manner as to prevent the further downward movement of the material supplied by the chute or spout, and when the advancing edge of the next bucket passes clear of the end of the regulator F such regulator drops and the material is delivered into the bucket.

It will be found that if the movement of the conveyer is arrested when the regulator is in an elevated position the discharge of the material over the regulator will be prevented in consequence of such regulator occupying nearly a horizontal position, and if the movement of the conveyers should be arrested when the regulator is in its depressed position the material will accumulate in the bucket of the conveyer upon the regulator and against the lower end of the spout in such a manner as to prevent the further downward movement of the coal or other material until the conveyer is again set in motion.

The direction of motion of the conveyer is denoted by the arrow and each bucket passes in succession from the hinge of the regulator toward the swinging end of the same, hence either raising such regulator or allowing it to fall for the passage of the material, as aforesaid.

I have shown the hinged regulator with sides attached to it; but in cases when the sides are fixtures at the lower end of the chute the regulator may be made without sides.

I do not claim a valve or detainer at the lower end of a chute and means for actuating the same, as this has been provided; but it always remains entirely above the buckets and is not actuated by the direct contact of such buckets.

In my improvement the parts are rendered very simple and easy to construct and keep

in order, and as the regulator drops into the buckets successively the coal or other material is not so much broken or injured in falling, as heretofore usual.

I claim as my invention—

1. The combination, with the conveyer composed of buckets connected together in an endless chain, of a supply-chute down which the material to be conveyed is supplied and a regulator hinged at its upper end to the chute and dropping into the buckets in succession and being automatically raised by the passing buckets, substantially as set forth.

2. The combination, with the range of conveyer-buckets, of a supply chute or spout and a regulator hinged at its upper end to the lower end of the spout and provided with sides, such regulator dropping by gravity into the buckets successively and being raised automatically by the passing buckets, substantially as forth.

Signed by me this 24th day of June, 1891.

CHAS. W. HUNT.

Witnesses:

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