No. 844,317. PATENTED FEB. 19, 1907.

S. J. BLAKE.

TRIMMING DEVICE FOR LOADING APPARATUS.

APPLICATION FILED JULY 20, 1906.

2 SHEETS—SHEET 1.

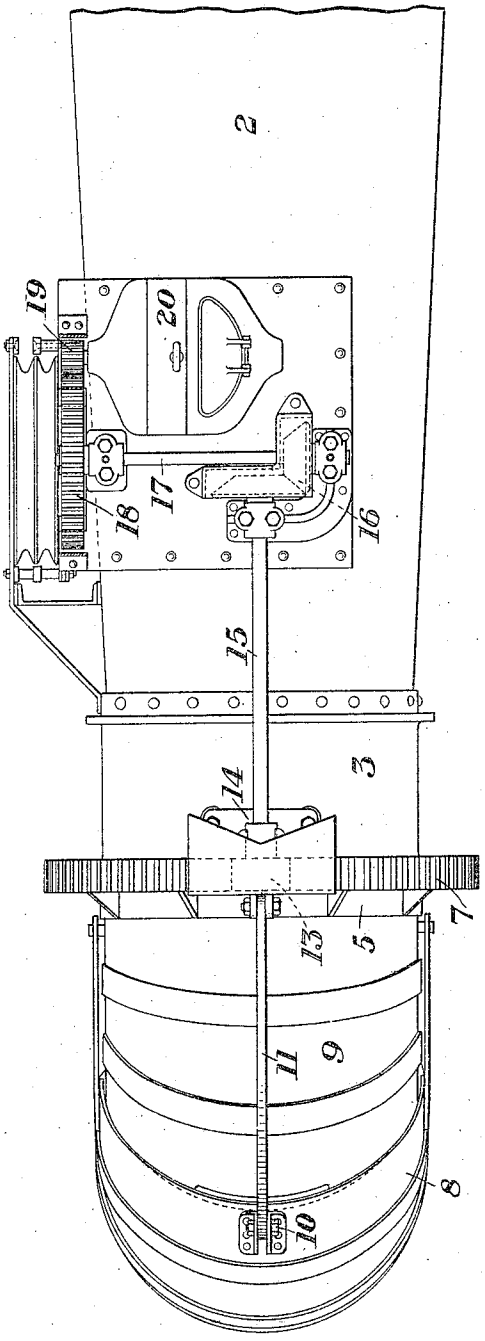

Fig. 1.

WITNESSES

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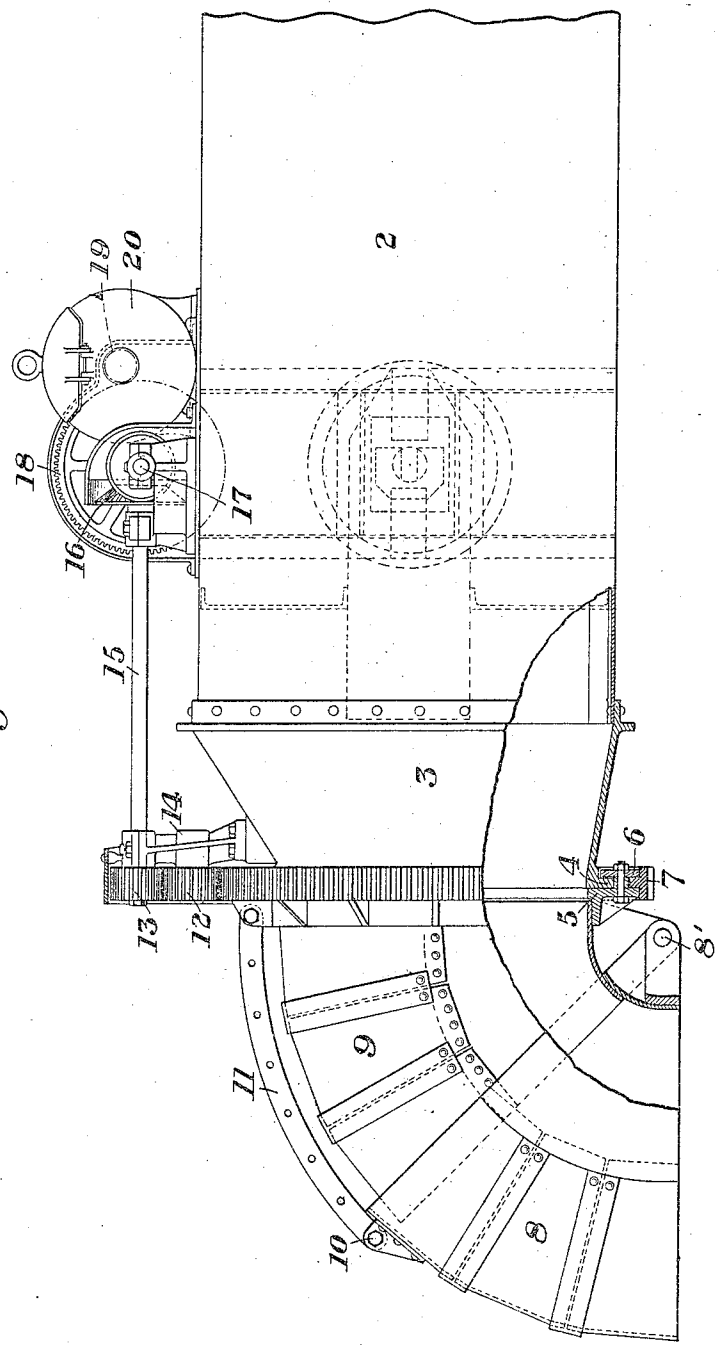
2 SHEETS—SHEET 2.

Fig. 2.



WITNESSES

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SHERMAN J. BLAKE, OF CONNEAUT, OHIO.

TRIMMING DEVICE FOR LOADING APPARATUS.

No. 844,317. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed July 20, 1906. Serial No. 326,963.

To all whom it may concern:

Be it known that I, SHERMAN J. BLAKE, of Conneaut, Ashtabula county, Ohio, have invented a new and useful Trimming Device for Loading Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of a part of a chute provided with my improved trimmer; and Fig. 2 is a side elevation of the same, partly broken away.

The object of my invention is to provide for properly distributing the coal or material fed into a vessel, so as to eliminate the hand-labor commonly used in such trimming of the load.

In the drawings, in which I show a preferred form of my invention, 2 indicates the chute or feed-channel for the material. At the end of this chute is riveted or otherwise secured a ring 3, which is preferably in the form of a frustum of a cone and may be made of a steel casting. This casting is provided with a flanged bearing 4 of annular form, which supports the rotatable section of the trimming device. This rotatable section is shown as consisting of a flanged ring 5, which may be in the form of a casting having bolted thereto the annular securing-plate 6, and being also provided with the external annular rack 7. The movable section preferably consists of two curved elbow-sections 8 and 9, of which the elbow-section 9 is secured to the ring 5, while elbow-section 8 is pivoted at 8′ and may be adjusted by means of the removable bolt 10, which may engage any one of a series of holes in the curved pivoted link 11. One end of this link is pivoted to the ring 5, so that the outer elbow-section 8 may be swung to different positions and held by inserting the bolt.

I have shown the telescoping elbow-section 8 as being operated manually; but all the movable parts may be mechanically operated by power, if desired.

In order to rotate the outer movable section, I preferably provide power connections consisting of an idler-gear 12, engaging the rack 7 and rotated by the pinion 13. The pinions 12 and 13 are mounted in stub-shafts carried in bearing 14 on the stationary section 3 and actuated through shaft 15. This shaft has bevel-gear connection at 16 with the counter-shaft 17, extending across the chute and having a slow-motion gearing consisting of a toothed wheel 18, intermeshing with a pinion 19 on the shaft of the electric motor 20. By operating the motor through a suitable rheostat the movable section may be rotated in either direction.

The advantages of my invention result from the simplicity of the device and the ease of distributing and trimming the load.

Many changes may be made in the form and arrangement of the chute or feed-channel, the movable section, the means for turning, &c., without departing from my invention.

I claim—

1. In a load-trimmer, a depending section, a rotary section on the lower end of the depending section and a motor having connections on the depending section arranged to turn the rotatable section; substantially as described.

2. In a load-trimmer a depending chute, a motor on said chute, a telescopic elbow rotatably secured to the lower end of the chute and motor connections on the chute arranged to rotate the elbow; substantially as described.

3. In a load-trimmer a depending chute, a motor on said chute, a telescopic elbow rotatably secured to the lower end of the chute, said elbow being composed of two or more curved sections, means for adjusting the position of the curved sections, and motor connections on the chute arranged to rotate the elbow; substantially as described.

4. In a load-trimmer, a fixed section, a rotary section mounted thereon, and a motor having connections arranged to rotate the movable section; substantially as described.

5. In a load-trimmer, a chute having an electric motor mounted thereon, a rotary section at the outer end of the chute having a telescopic elbow, driving connections from the motor arranged to rotate the outer section, and connections arranged to adjust the telescopic elbow; substantially as described.

In testimony whereof I have hereunto set my hand.

SHERMAN J. BLAKE.

Witnesses:

L. F. HUTCHINS,

R. R. RICHARDSON.