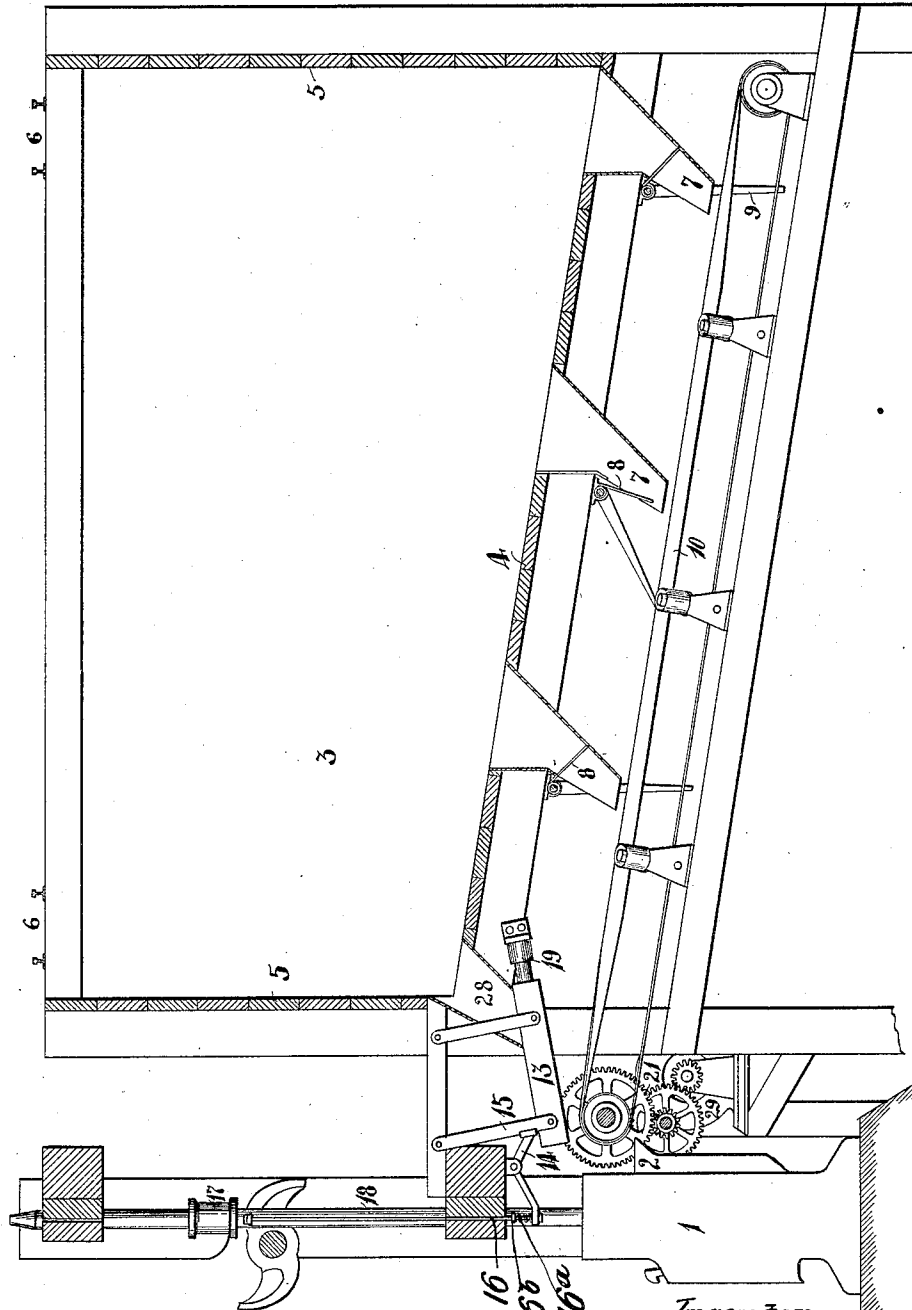


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ORE FEEDER.

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1,047,369.

Patented Dec. 17, 1912.



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UNITED STATES PATENT OFFICE.

HANS CHARLES BEHR, OF JOHANNESBURG, TRANSVAAL.

ORE-FEEDER.

1,047,369.

Specification of Letters Patent.

Patented Dec. 17, 1912.

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To all whom it may concern:

Be it known that I, HANS CHARLES BEHR, consulting mechanical engineer, a citizen of the United States of America, residing at Consolidated Goldfields Building, Johannesburg, Transvaal, have invented new and useful Improvements in Ore-Feeders, of which the following is a specification.

This invention relates to an improvement in ore feeders and one of the objects is to provide a primary constant feed or delivery means which continuously supplies ore to the mortar of a stamp, in quantities below the normal capacity of the stamp, and further, to provide a secondary ore supplying means for bringing the supply up to the normal capacity of the stamp.

My invention will be more fully described in connection with the accompanying drawing and will be more particularly pointed out by the appended claim.

The drawing illustrates one form of my invention in connection with an ore bin and a reciprocating stamp, the bin being shown in section.

As illustrated, 1 designates a mortar box for a stamp 18, which latter is provided with a tappet 17, adapted to be actuated by a rotary cam. A pivoted lever 14 is connected at one end with a bumper rod 16, adapted to be actuated by the tappet 17. At its other end, the lever 14, engages one of a pair of links 15, supporting an auxiliary feeder 13. A bumper spring 16^a may be interposed between the end of the lever 14, and a collar at 16^b on the rod 16. The two links 15, support the tray or trough 13, in receiving relation with a chute 28, extending from the bin 3. A suitable resilient bumper 19, is provided for returning the tray 13, against the action of lever 14, which latter reciprocates the tray 13, to the right, as shown. The tray 13, delivers to the opening 2, of the mortar box. The bin 3, is provided with an inclined wall 4, having discharge openings to chutes 7, which are controlled as regards the discharge of material passing therethrough, by gates 8. The bin 3, is provided with side walls 5, supporting suitable trackage 6, to facilitate a supply of material to the bin 3, by means of dump cars, not shown.

A main conveyer is shown in the form of

an endless traveling belt 10, which is arranged under the bin to receive ore from any of the chutes 7, and deliver the ore to the mortar box 1, at the opening 2. The belt 10, is driven by a constant speed motor 29, at a predetermined, uniform speed, so as to deliver a constant stream of ore, somewhat less in quantity than the prearranged average capacity of the stamp. Excess feed, over that supplied by the belt, which excess may vary from time to time in accordance with the working of the stamp, is supplied by the automatic feeder 13, at such a rate as to bring up the supply of ore to the required capacity.

When the ore in the mortar box falls below a certain predetermined level, the length of stroke of the stamp is thereupon increased, and the tappet 17, will engage the bumper rod 16, and actuate the lever 14, and reciprocate the tray 13, through the action of the lever 14, and the bumper 19. This will result in the discharge of ore from the tray 13, to the mortar box opening 2, which will bring up the level in the mortar box and thereby shorten the stroke of the stamp. When the level in the mortar box is up to normal then the stroke of the stamp is not of sufficient length to cause the tappet to actuate bumper rod 16.

It will be seen that the conveyer belt 10, constitutes a primary constant feed or delivery means, which continuously supplies ore to the mortar in quantities below the normal capacity, causing a stroke of the stamp exceeding a given or predetermined length. The tray 13, constitutes a secondary supply ore means, for bringing up the supply to the normal capacity thereby reducing the length of the stroke of the stamp to such predetermined length. The predetermined length of the stroke of the stamp is considered in accordance with any machine as the longest stroke at full efficient capacity.

What I claim, and desire to secure by Letters Patent is:—

An ore stamp mechanism comprising in combination, a mortar and a reciprocating stamp therefor having its stroke reduced or increased with respect to a given length by the rise or fall of the ore in the mortar above or below a given normal, a primary ore

feeding means maintaining a supply in the
mortar slightly less than normal, a second-
ary ore feeding means for the mortar, and
an actuating device for said secondary means
5 operable by the stamp only on strokes there-
of exceeding said given length, substantially
as and for the purpose set forth.

In testimony whereof I affix my signa-
ture in presence of two witnesses.

HANS CHARLES BEHR.

Witnesses:

BERNARD PULLIN,
L. F. HELLIER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
