No. 648,015. Patented Apr. 24, 1900.

G. W. WRIGHT.

VIBRATING PITMAN FOR CRUSHERS.

(Application filed June 5, 1899.)

(No Model.)

Fig. I.

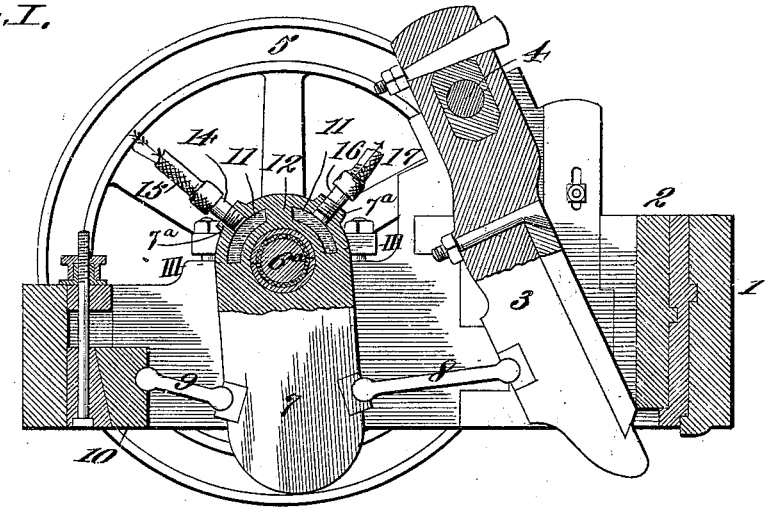


Fig. II.

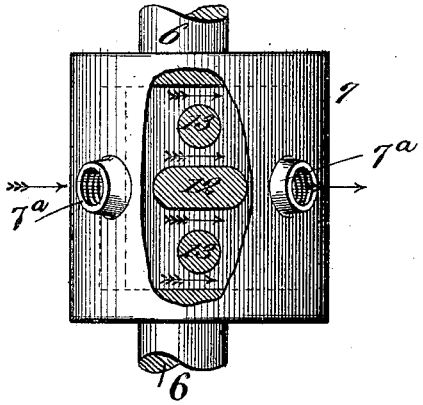
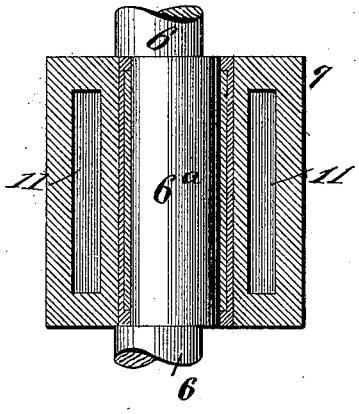


Fig. III.



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UNITED STATES PATENT OFFICE.

GEORGE W. WRIGHT, OF WEBB CITY, MISSOURI.

VIBRATING PITMAN FOR CRUSHERS.

SPECIFICATION forming part of Letters Patent No. 648,015, dated April 24, 1900.

Application filed June 5, 1899. Serial No. 719,378. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WRIGHT, a citizen of the United States, and a resident of Webb City, in the county of Jasper and State of Missouri, have invented certain new and useful Improvements in Vibrating Pitmen for Crushers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a means for keeping the eccentric part of the eccentric shaft of rock or ore crushers cool by means of a flow of water through the vibrating pitman over the opening contained therein in which the eccentric part revolves.

My invention consists in features of novelty hereinafter fully described and claimed.

Figure I is a view, partly in elevation and partly in vertical longitudinal section, of a rock or ore crusher provided with my improved vibrating pitman. Fig. II is a top view of the vibrating pitman, partly broken away to show an interior water-chamber. Fig. III is a horizontal sectional view taken on line III III, Fig. I.

1 designates the crusher-bed of a rock or ore crusher, containing a stationary jaw 2.

3 designates the active jaw of the crusher, mounted on a shaft 4 and so arranged that its lower end is capable of being moved toward and from the stationary jaw 2.

5 designates a fly-wheel mounted on the eccentric shaft 6, the said shaft being mounted in suitable boxes supported by the bed of the machine.

7 designates the vibrating pitman, mounted on the eccentric part 6^a of the eccentric shaft 6 and connected to the active jaw 3 by a link 8.

9 is a link at the opposite side of the vibrating pitman from that at which the link 8 is located, the link 9 having bearing against an adjustable block 10.

No invention *per se* is herein claimed for the parts thus far referred to.

11 designates a semicircular water-chamber formed within the upper end of the vibrating pitman 7 over the opening for the eccentric part 6^a of the eccentric shaft 6, the said chamber straddling the opening and extending from side to side of the pitman. Located centrally within said water-chamber and extending longitudinally of the crown thereof are radial pillars 12 and 13, adapted to distribute the flow of water in its passage through said water-chamber from side to side thereof.

14 designates an inlet-pipe leading from a radial pipe-socket 7^a. The inlet-pipe is in communication with the water-chamber 11 and has connected thereto a flexible pipe 15, adapted to bend in the movement of the vibrating pitman, while at the same time permitting a flow of water therethrough to the water-chamber. The water enters the chamber 11 through the inlet-pipe 14 and flows past and around the radial pillars 12 and 13 to the opposite side of the water-chamber, in which course it is thoroughly distributed by said radial pillars dividing the stream of water, and it then flows out of the chamber through the outlet-pipe 16, leading from another radial pipe-socket 7^a. The outlet-pipe is in communication with the flexible discharge-pipe 17, whereby a continuous flow of water through the pitman over the eccentric part of the eccentric shaft may be maintained. The water entering the water-chamber through the inlet-pipe flows downwardly from above directly onto the inner wall of the chamber and then spreads over the surface of the inner wall toward the outlet side of the chamber, being divided and distributed by the radial pillars, flows into the lower surface of the other side of the chamber, and backs up and passes upwardly out through the outlet-pipe.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A vibrating pitman, for reciprocating the active jaw of a crusher, comprising an opening in the upper end of the pitman, adapted to receive the eccentric part of an eccentric shaft, the semicircular water-chamber, located within the upper end of the pitman, extending from side to side of the pitman and straddling the opening and separated therefrom, the inlet and outlet radial pipe-sockets located at the top of the pitman and on opposite sides of the water-chamber and the inlet and outlet pipes connected with their respective pipe-sockets; the inlet-pipe directing the flow of cold water from above

downwardly onto the inner wall of the chamber from whence it is spread over the surface of the inner wall toward the outlet side of the chamber and passes upwardly out and through the outlet-pipe; substantially as described.

2. A vibrating pitman for reciprocating the active jaw of a crusher, comprising an opening in the upper end of the pitman, adapted to receive the eccentric part of an eccentric shaft, the semicircular water-chamber, located within the upper end of the pitman, extending from side to side of the pitman and straddling the opening and separated therefrom, the inlet and outlet radial pipe-sockets located at the top of the pitman and on opposite sides of the water-chamber, the radial pillars extending longitudinally of the crown of the chamber, and the inlet and outlet pipes connected with their respective pipe-sockets; the inlet-pipe directing the flow of water from above downwardly onto the inner wall of the chamber from whence it is spread, divided up by the radial pillars and distributed over the inner wall toward the outlet side of the chamber and passes upwardly out through the outlet-pipe; substantially as described.

GEO. W. WRIGHT.

In presence of—
GEORGE KESLER,
ALBA T. FOUNTAIN.