

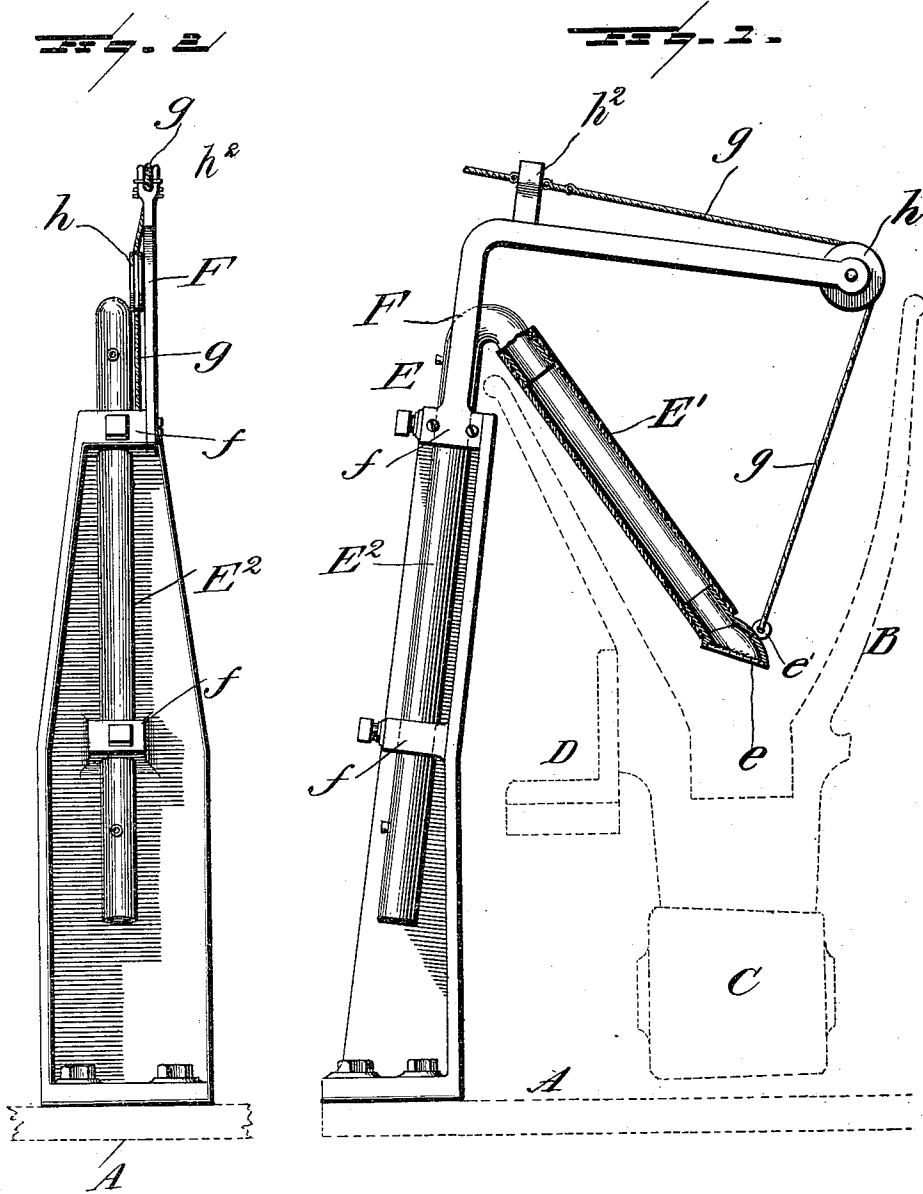
No. 661,998.

Patented Nov. 20, 1900.

T. R. JORDAN.
CRUSHING MACHINE.

(Application filed June 30, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS ROWLAND JORDAN, OF NEW YORK, N. Y., ASSIGNOR TO THE
JORDAN GRAVITATION PROCESS COMPANY, OF NEW YORK.

CRUSHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 661,998, dated November 20, 1900.

Application filed June 30, 1900. Serial No. 22,218. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ROWLAND JORDAN, a subject of the Queen of Great Britain, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Crushing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My present invention relates to crushing or reducing machines for ore and the like, and is directed to improvements in siphons adapted for use more particularly in connection with the type of machine which forms the subject-matter of an application for patent filed by me on or about the 27th day of October, 1897, which type is comprised, generally speaking, of a rotatable circular pan centrally mounted on a spindle and supported on rollers and of runners or rolls mounted on radial shafts and arranged to revolve on the bottom of the pan.

The construction and operation of my improved siphon will be readily comprehended, reference being had to the following detailed description and to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of a siphon and support therefor embodying my invention, a portion of the pan of a crushing or reducing machine being shown in dotted lines to indicate the preferred location of the siphon. Fig. 2 is an elevation of the siphon and support viewed from the left-hand side.

Referring to the said drawings by letter, A denotes the base of the crushing or reducing machine in connection with which my improved siphon is adapted to be employed.

B is the circular rotatable pan.

C is one of the rollers supporting the pan, and D is the gear or circular rack, which is connected with the pan-driving pinion. (Not shown.)

My improved siphon, which is lettered E, constitutes the discharge-outlet from the pan, and to this end is supported adjacent to the edge of the pan, and preferably the outer edge, the short leg E' of the siphon extending into the pan, while the long leg E² is outside thereof and discharges the crushed or reduced material with water.

F denotes the support for the siphon, which consists of an upright of angular form in cross-section, bolted at its lower end to the base of the machine. The upright is provided with lugs *f f*, apertured to freely receive the long leg E², whereby the siphon is capable of vertical adjustment, the adjusted position being maintained by set-screws *f' f'*, which are passed through the lugs and tightened against the siphon.

The adjustment of the siphon, which may be accomplished by raising or lowering the same by hand, enables the positioning of the receiving or inlet end at any point in the pan, whereby the discharge of material from different levels may be accomplished. Such adjustment of the receiving end of the siphon is also effected by raising and lowering the short leg, the latter to this end being made of flexible material, or, in other words, is a rubber tube, such as shown, and hence is capable of being adjusted independently of the rigid portion of the siphon. With the two means of adjustment the receiving end may be properly positioned at any desired point in the pan, as will be understood. The means for adjusting the short leg of the siphon consists of a cord or chain *g*, which is attached at one end to an eye *e* on a rigid tube-section *e'*, forming an extension of the short leg and which is passed around a sheave *h*, mounted on the outer end of an L-shaped bracket *h'*, secured to the upright F, the cord being guided at the inner end of the bracket by a crotched lug *h²* on the latter. The cord is secured to maintain the adjusted positions of the receiving end of the siphon in any suitable way, or said cord may have stops which will engage the lug *h²*, the stops being properly located on the cord to give the desired heights of adjustment. The tube-section *e'*

of the siphon is beveled at its inlet end and may be provided at such receiving end with a screen to exclude foreign and large particles.

One or more siphons may be employed in connection with a machine. Where two or more siphons are used they may be differently adjusted to take off materials of different specific gravities. Siphon action is started by elevating the short leg sufficiently to allow of water being poured through the inlet until the siphon is filled, whereupon the short leg is brought below the level of water in the pan, and the discharge thereafter is constant.

I claim as my invention—

1. In combination with the rotatable pan of a crushing or reducing machine, a siphon-pipe having a flexible short leg extending into the pan, means for vertically adjusting the siphon-pipe, and separate means for adjust-

ing the short leg whereby through such double adjustment the inlet of the siphon-pipe may be positioned at any point in the pan.

2. In combination with the rotatable pan of a crushing or reducing machine, a siphon-pipe adjustably supported and having a flexibly-connected short leg extending into the pan, and a cord or chain attached to the short leg and serving as a means for adjusting said leg independent of the aforesaid adjustment whereby the inlet of the siphon-pipe may be positioned at any point in the pan.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS ROWLAND JORDAN.

Witnesses:

W. T. NORTON,
ARTHUR BROWNING.