

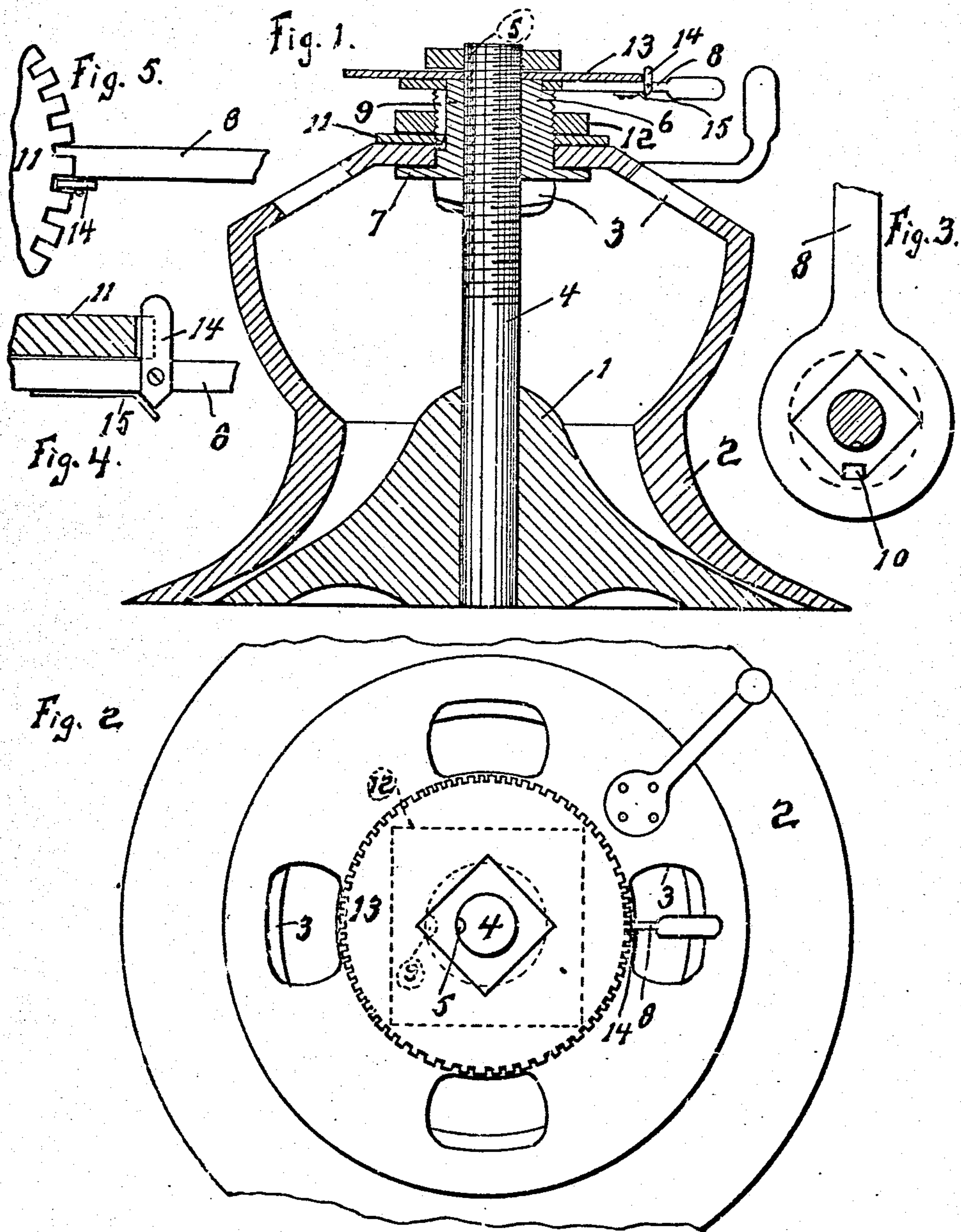
J. W. MYER.

QUARTZ MILL.

APPLICATION FILED FEB. 28, 1910.

975,369.

Patented Nov. 8, 1910.



Witnesses.
Roswell P. Rogers.
L. H. Miller

Inventor.
James W. Myer. by,

Carlos P. Griffin Atty.

UNITED STATES PATENT OFFICE.

JAMES W. MYER, OF SAN FRANCISCO, CALIFORNIA.

QUARTZ-MILL.

975,369.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed February 28, 1910. Serial No. 540,487.

To all whom it may concern:

Be it known that I, JAMES W. MYER, a citizen of the United States, residing at 1168 Bryant street, city of San Francisco, in the county of San Francisco and State of California, have invented a new and useful Quartz-Mill, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to a quartz mill and its object is to produce a shell supporting device which will always hold the runner at a sufficient distance from the fixed part of the mill to insure the proper feed at all times. It is to be noted that in the type of mill herein illustrated the runner is often very heavy and on account of its considerable weight the mill does not feed the rock into the grinding surfaces as rapidly as it should. The runner must therefore be supported above the fixed member at such a distance therefrom as will insure the proper grinding of the material, while at the same time the wear of the several parts must be taken account of and the adjustment of the runner from time to time provided for.

In the drawings, in which the same numeral of reference is applied to the same portion throughout the several views, Figure 1 is a vertical sectional view of the entire upper portion of a mill of this type the base being omitted, Fig. 2 is a plan view of the mill, Fig. 3 is a plan view of one of the nut locking devices, Fig. 4 is a sectional view of a portion of one of the adjusting devices showing the snap used to secure the nut in a given position, and Fig. 5 is a plan view of the nut turning head as it appears around the nut for adjusting the runner.

It will be understood by those skilled in the art that this adjusting device may be applied to any type of mill having a heavy runner which requires support for the proper feeding of the material to be ground.

The numeral 1 represents the base of the mill on which the runner 2 rotates, said runner being provided with feed openings 3 in the top thereof. The base has a post 4 and about which said base is cast. This post is provided with screw threads at its upper end, and it is provided with a key way 5. On the post is a nut 6 having a flange 7 to support the shell 2, and said nut has an arm 8 secured thereto at its upper end, note Fig.

5, said arm being adapted to rotate the nut to raise or lower the same as may be desired. This nut is provided with a key way 9 in which a feather 10 on the disk 11 is adapted to slide, and this disk is prevented from moving away from the flange 7 by means of a nut 12 threaded on the outside of the nut 6, said disk 11 preventing the nut 12 from being either tightened or loosened on the rotation of the shell 2. In order that the nut 6 may be secured on the post 4 in any desired relation thereto the disk 13 is provided said disk having a feather which is adapted to travel in the key way of the post. This disk has its periphery provided with a series of notches in which a spring latch 14 engages, a spring 15 bearing on the latch to hold it out of or in contact with the disk 13 as may be desired. The latch is secured on the arm 8. Above the disk 13 a nut is threaded on the post and it holds the disk 13 in close contact with the top of the nut 6. The threads on the post extend far enough down the latter to permit a considerable adjustment of the shell to allow for the wearing of its grinding surfaces.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In a quartz mill, a fixed grinding member, a runner, a post adapted to hold said runner in a given position with respect to the fixed member, a flanged nut adapted to hold the runner at a fixed distance away from the grinding member, means to lock said nut against rotation, a second nut adapted to prevent the runner from moving more than a given distance away from the grinding member and means to prevent the runner from bearing directly on said second nut, as set forth.

2. In a quartz mill, a fixed grinding member, a runner, a post adapted to hold said runner in a given position with respect to said grinding member, a flanged nut adapted to support the runner at a fixed distance away from the grinding member, a disk adapted to hold said nut from rotation, a second nut adapted to prevent the runner from moving away from the grinding member, and a fixed disk to prevent the rotation of said second nut, as set forth.

3. In a quartz mill, a fixed grinding member, a runner, a post, a nut on said post adapted to support the runner at a fixed

distance away from the grinding member, a second nut adapted to prevent said runner from moving away from the grinding member more than a fixed distance, and means to prevent the movement of said first nut during the rotation of the runner, as set forth.

4. In a quartz mill, a fixed grinding member, a runner, a post adapted to hold the runner in a fixed relation with the grinding member, a flanged nut on said post adapted to support the runner a fixed distance above the grinding member, a nut on the first nut and adapted to prevent the runner from moving away from the grinding member, a fixed plate adapted to prevent the rotation of said second nut during the time of rota-

tion of the runner, a second plate fixed against rotation and slidable on the post above the first nut, means to lock the first nut in any one of a number of positions with respect to said second plate, and a nut adapted to secure the second plate closely to the first nut, as set forth.

In testimony whereof I have hereunto set my hand this 19th day of February A. D. 1910, in the presence of the two subscribed witnesses.

JAMES W. MYER.

Witnesses:

A. K. DAGGETT,
ROSWELL P. ROGERS.