No. 874,926. PATENTED DEC. 31, 1907.

H. BEHR.

RESILIENT CONNECTION FOR PENDULUM MILLS.

APPLICATION FILED MAY 15, 1907.

Fig. 1

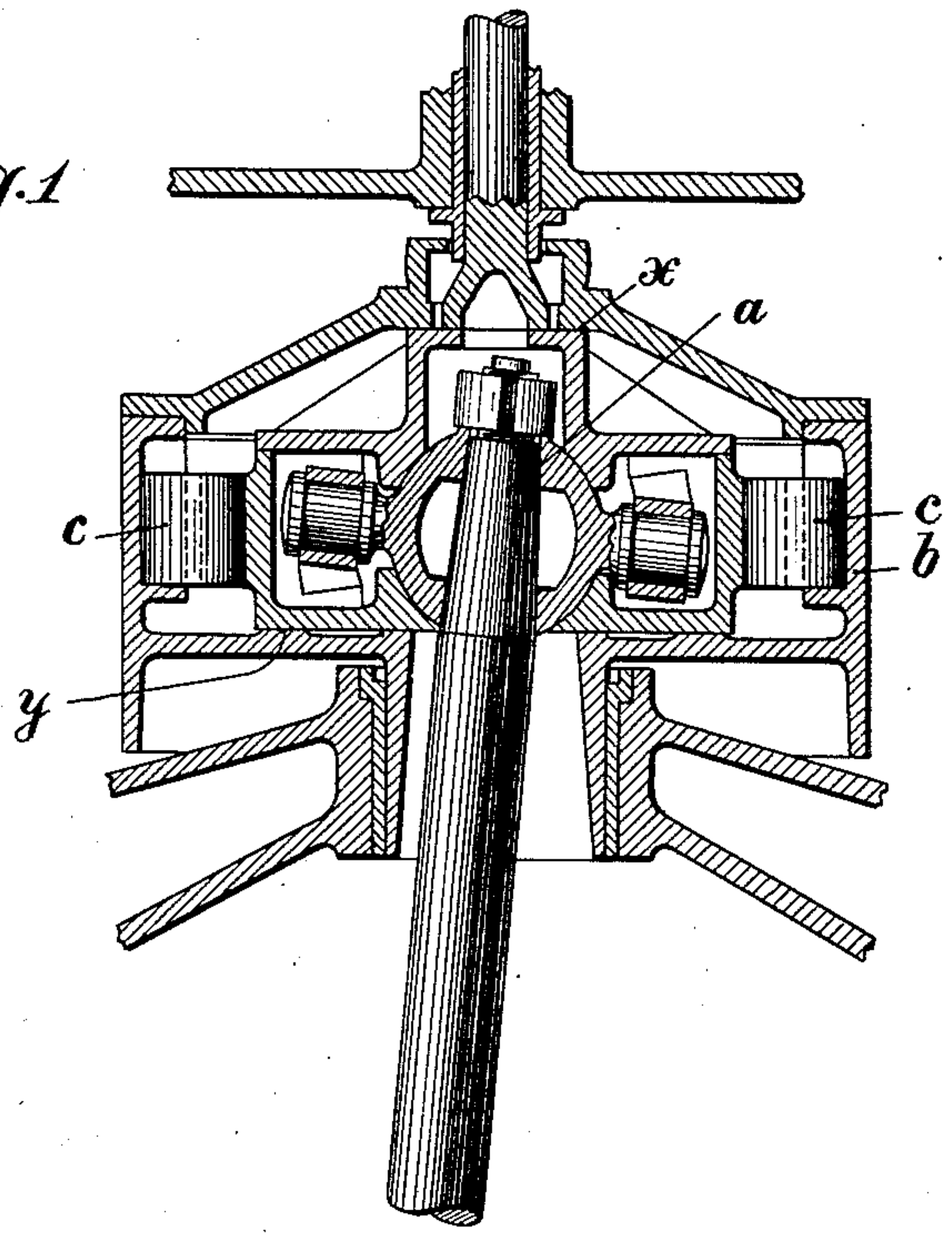
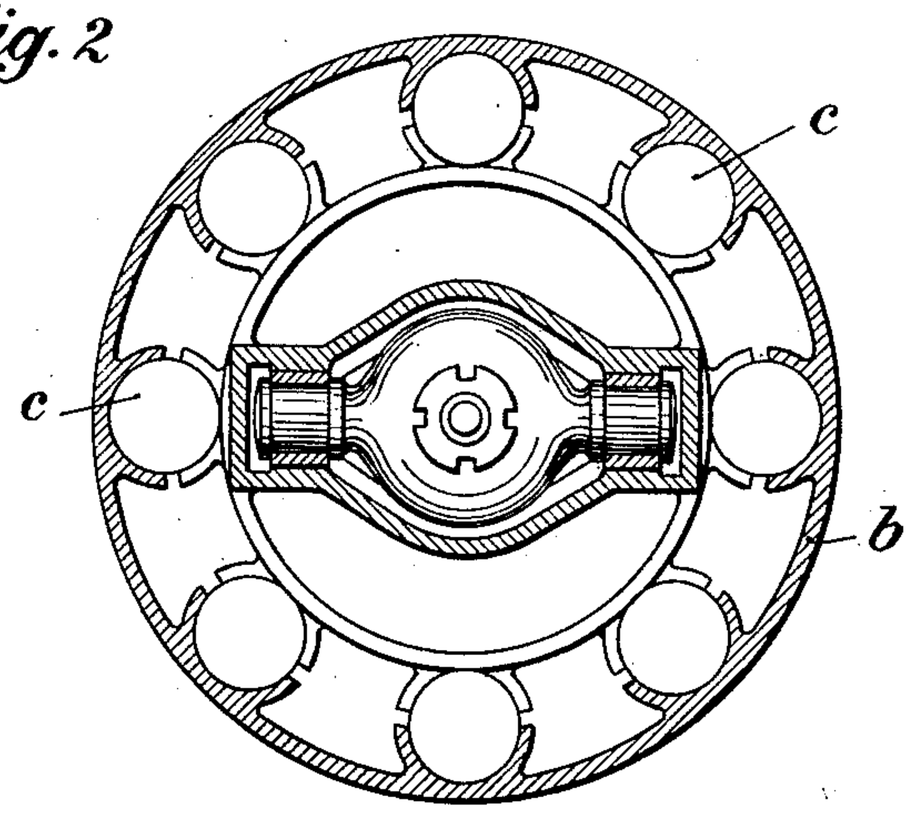


Fig. 2



Witnesses:
C. F. Taylor
J. J. McCarthy

Inventor:
H. Behr
by Foster Freeman & Watson
Attorneys

UNITED STATES PATENT OFFICE.

HERMANN BEHR, OF MAGDEBURG-SUDENBURG, GERMANY.

RESILIENT CONNECTION FOR PENDULUM-MILLS.

No. 874,926. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed May 15, 1907. Serial No. 373,757.

To all whom it may concern:

Be it known that I, HERMANN BEHR, civil engineer, residing at Magdeburg-Sudenburg, German Empire, have invented certain new and useful Improvements in Resilient Connections for Pendulum-Mills, of which the following is a specification.

Reference is to be had to the accompanying drawing, in which

Figure 1 is a sectional elevation and Fig. 2 a plan view, partly in section of the improved pendulum mill.

It is known in one-pendulum-mills to provide a resilient connection between the driving-disk and swivel-joint. In the connection now in use the swivel-joint is pivotally journaled in the driving-disk, and is rotated by the same by means of springs, *e. g.* elastic cams. As shocks of the grinding-roller, which occur when the same rolls over large quantities of grain, or over unevennesses on the grinding-surface, are transmitted with great violence by the stiff pendulum-rod to the ball-bearing of the swivel-joint, the frame of the mill is strained very much. Therefore, the swivel-joint in the driving disk is preferably arranged in such a manner that it transmits also the shocks occurring in radial direction elastically to the driving-disk and thereby to the frame of the mill. To this end the resilient cams journaled in the driving-disk, and acting like springs on the swivel-joint, are distributed uniformly over the inner circumference of the driving-disk.

Referring now to Fig. 1, the swivel-joint *a* is arranged between the surfaces *x* and *y* in the driving-disk *b* in such a manner that it can be shifted horizontally in all directions. Between the driving disk *b* and the swivel-joint *a* a number of cylindrical india-rubber buffers *c* are arranged on the inner circumference of the driving-disk, as best shown in Fig. 2 in such a way that they lie for about one half of their circumference in journal-like projections on the swivel-joint *a*, while the other half of their circumference lies in similar projections on the driving-disk *b*. Instead of the india-rubber buffers *c* other elastic means may be used, for instance, springs. The object attained by this arrangement is that the swivel-joint is not only elastically actuated by the driving-disk, as in the known devices, but that also, at the same time, horizontal shocks occurring in the ball-bearing of the swivel-joint are elastically neutralized by the driving-disk.

Having now fully described and set forth the nature of my said invention, I declare that what I claim is:

1. In a pendulum mill, the combination of a driving pulley, a frame mounted in said pulley and free to slide bodily therein, a pendulum connected by a universal joint with said frame, and yielding connections between said sliding frame and driving pulley.

2. In a pendulum mill, the combination of a driving pulley, a frame mounted in said pulley and free to slide bodily therein in any horizontal direction, a pendulum connected with said frame by a universal joint, and elastic blocks between said frame and pulley.

In witness whereof I have signed this specification in the presence of two witnesses.

HERMANN BEHR.

Witnesses:

FRIEDRICH RUFF,

MARIE SCHNEIDER.