(No Model.)

T. HOELZER.

BALL MILL FOR MIXING OR GRINDING.

No. 567,189. Patented Sept. 8, 1896.

Fig. 1.

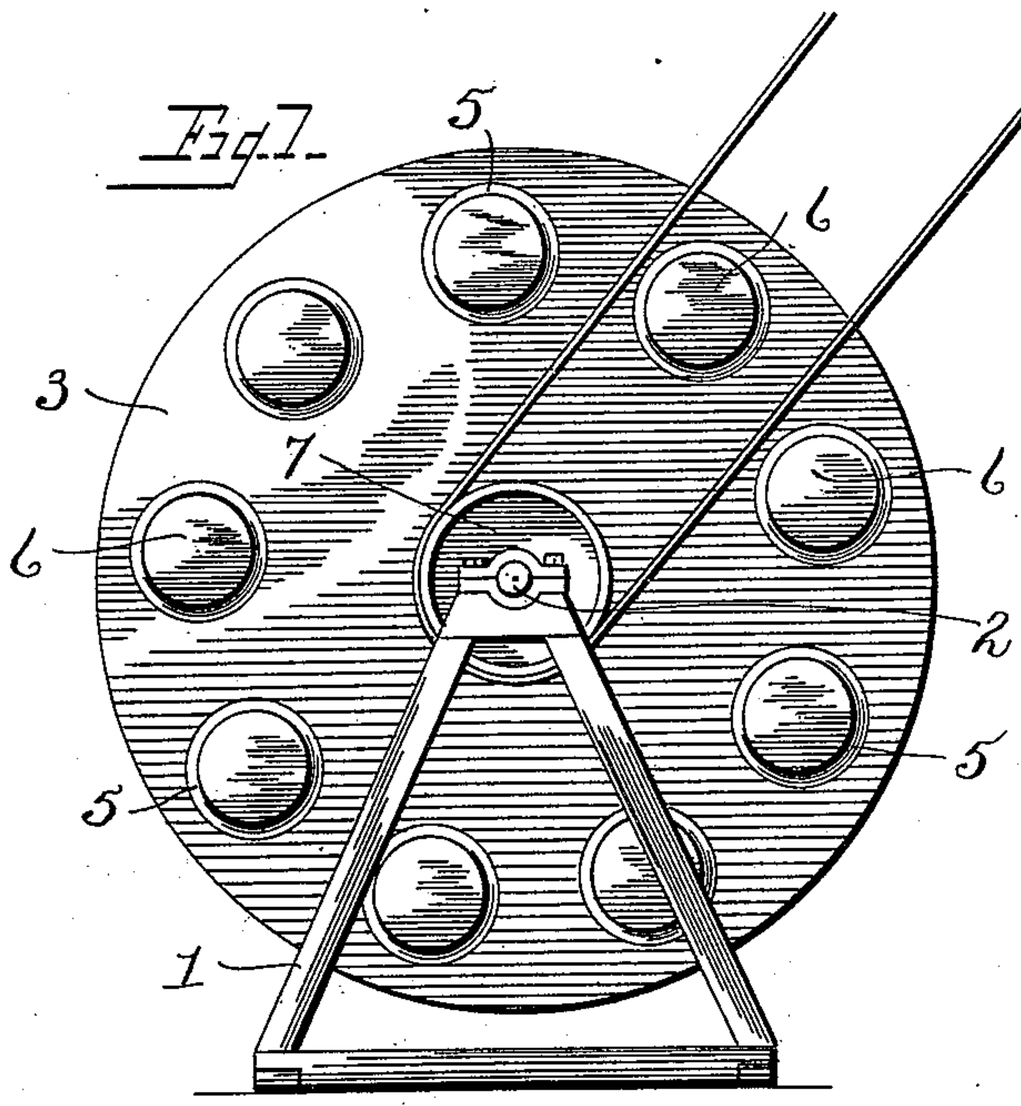

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Fig. 2.

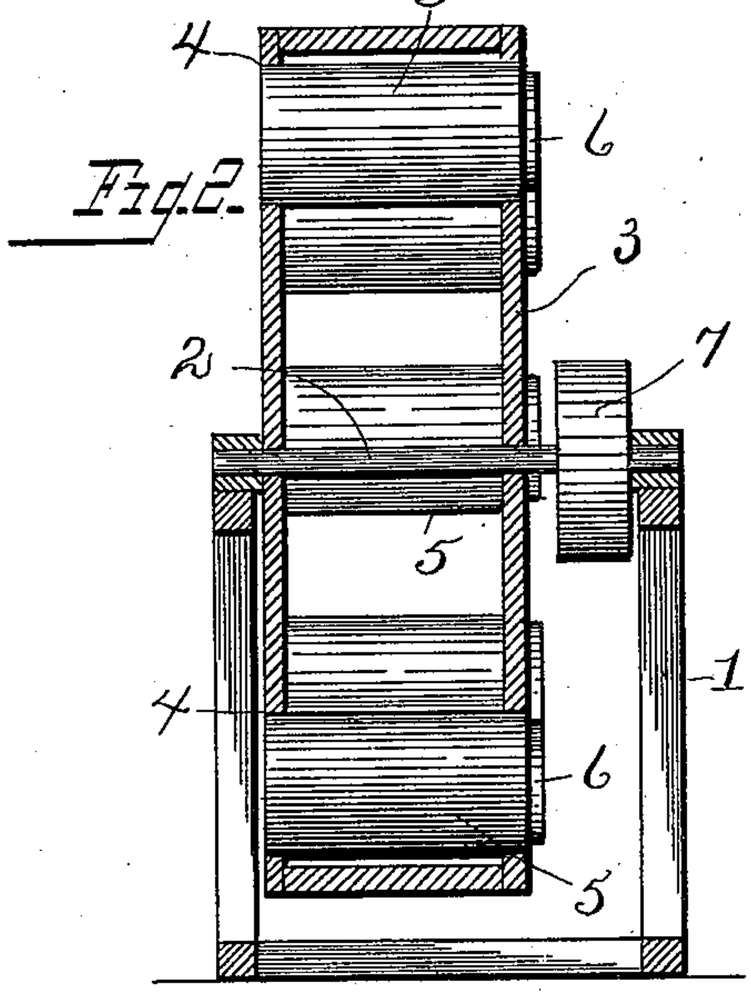
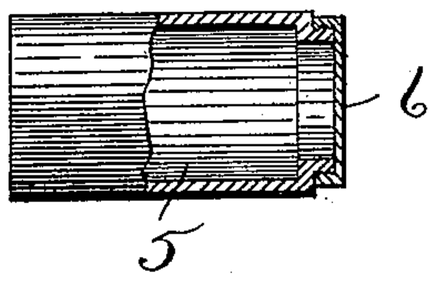


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THEODORE HOELZER, OF TOLEDO, OHIO.

BALL-MILL FOR MIXING OR GRINDING.

SPECIFICATION forming part of Letters Patent No. 567,189, dated September 8, 1896.

Application filed April 15, 1895. Serial No. 545,834. (No model.)

To all whom it may concern:

Be it known that I, THEODORE HOELZER, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Ball-Mills for Mixing or Grinding; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 figures of reference marked thereon, which form part of this specification.

My invention relates to a ball-mill for mixing or grinding, and has for its object to provide a mill in which different substances may be mixed or ground in one operation in separate receptacles, the receptacles being so arranged that the power necessary to revolve the same is reduced to a minimum.

The invention consists in a revoluble cylinder having a plurality of receptacles removably secured at or near the periphery of the same, said receptacles being of non-corrosive material having a screw-cap upon one end, whereby the material to be mixed can be conveniently inserted or removed.

The invention further consists in the parts as shown, described, and claimed.

In the drawings, Figure 1 is a side elevation of a mixing or grinding mill constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail view of one of the receptacles removed from the mill.

1 designates a frame in which is secured the shaft 2. Upon the shaft is fixedly secured a cylinder 3, said cylinder having a plurality of openings 4 at or near the periphery thereof, the openings being of a size to receive receptacles 5. Receptacles 5 are preferably formed of glass, porcelain, or analogous non-corrosive substance and are provided with a removable cover 6, screwed upon the same at one end, whereby the contents can be removed or inserted. Secured upon the shaft 2 are pulleys 7, by which means the shaft and cylinder are revolved.

In operation the material to be ground or mixed is inserted in the receptacles by first removing the cover 6, when the cover is screwed upon the receptacle and the receptacle placed in the cylinder, when by revolving the cylinder the material is caused to be agitated and thoroughly mixed or ground, it being understood that in the grinding process there are employed balls, formed of porcelain or analogous substance, which, by rubbing against the material as it is agitated by the elevation of the cylinder, grind the material.

It will be seen that as many different materials may be ground or mixed at the same time as there are receptacles 5, and that by the receptacles placed as described in the cylinder the weight is distributed and the power necessary to revolve the same reduced to a minimum.

What I claim is—

In a mill for grinding or mixing, a shaft and means for revolving the same, a cylinder fixedly secured upon the shaft, a series of openings in the cylinder adjacent to, and equidistant from, the periphery thereof, and receptacles to receive the material to be ground or mixed, secured in the openings of the cylinder.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

THEODORE HOELZER.

Witnesses:

CARROLL J. WEBSTER,

FLOYD R. WEBSTER.