Aug. 26, 1930. J. KLAGSBRUNN 1,773,906

GRINDING MILL

Filed Nov. 21, 1927

Fig. 1

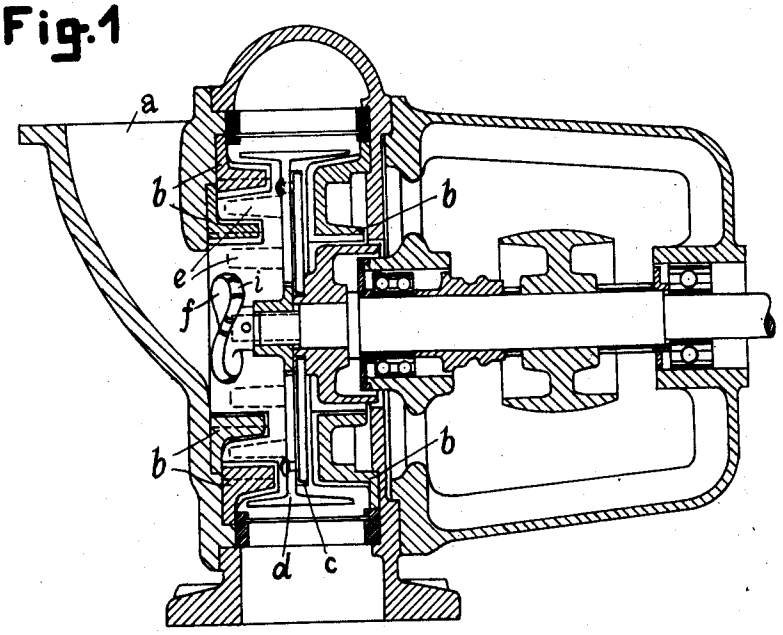
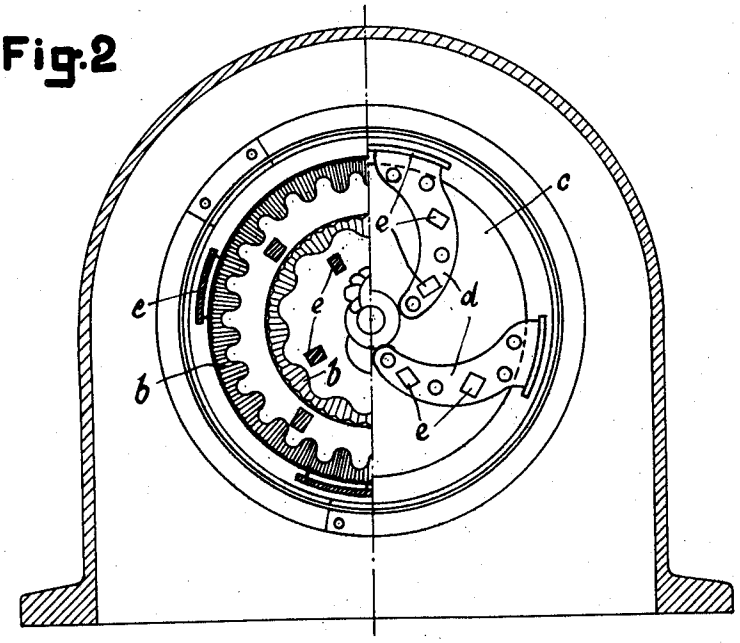


Fig. 2



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UNITED STATES PATENT OFFICE

JOSEF KLAGSBRUNN, OF VIENNA, AUSTRIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO PAUL LEGRAND, OF BRUSSELS, BELGIUM

GRINDING MILL

Application filed November 21, 1927, Serial No. 234,746, and in Austria November 26, 1926.

This invention relates to a grinding and centrifugal drying-mill, in which the grist is ground between fixed grinding rings, rotating beating members and by friction of portions of the grist against each other. According to this invention the grinding rings are provided with riffles, on which the grist, which is broken and beaten back by the rotating beater, becomes further ground, thereby increasing greatly the efficiency of the mill. The riffles may be made smaller in the direction to the circumference of the rings, through which the good or grists becomes rapidly and perfectly reduced.

In the annexed drawing an example of a mill in accordance to the invention is illustrated whereby shows: Fig. 1 the mill in cross section and Fig. 2 in section through and behind the grinding rings.

In the drawing *a* designates the entering hopper, *b* the riffled grinding rings, *c* the beating disc with beaters *d* and beating teeth *e* and *f* a feed screw provided with teeth *i* on the circumference.

The grinding rings *b* are arranged on opposite sides of the disc and there are two of such grinding rings on the feed side of the disc arranged concentrically with respect to each other and their outer peripheries are provided with the riffles, which riffles increase in breadth and depth toward the disc to facilitate the movement of the grist toward the disc. The teeth *e* of the disc extend forwardly therefrom at substantially right angles thereto and are so fitted thereon that certain of the said teeth operate between the pair of concentrically arranged grinding rings on the feed side of the mill and the others operate near the inner periphery of the smaller of said grinding rings. The beating teeth *d* of the disc operate without the radius of the outer peripheries of the larger grinding rings.

Having now described my invention, what I claim is:

In a grinding and centrifugal drying mill the combination of a revoluble beating disc having beating teeth extending beyond its periphery and also having teeth on its front side and extending substantially at right angles thereto and fixed grinding rings spaced from the front and rear sides of said disc, the grinding rings on the front side of said disc being plural in number and arranged concentrically one with respect to another, said grinding rings being provided with riffles on their peripheral surfaces opposed to the teeth of the disc, said riffles increasing in breadth and depth toward the disc and being cross sectionally wave shaped.

In witness whereof I affix my signature.

JOSEF KLAGSBRUNN.