F. G. GAUNTT.

CEREAL CUTTER.

APPLICATION FILED FEB. 23, 1915.

1,252,898.

Patented Jan. 8, 1918.

FIG. 1

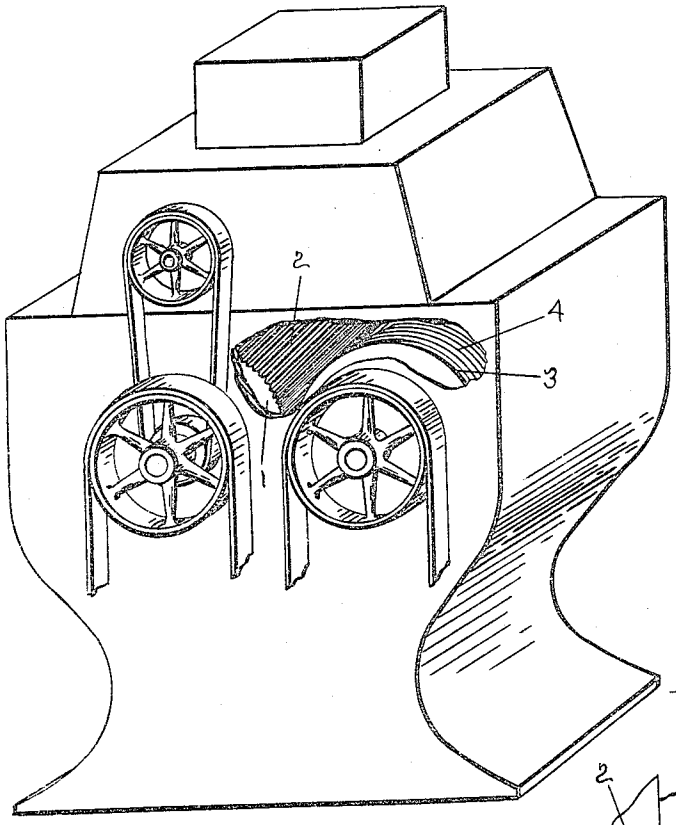


Fig. 3.

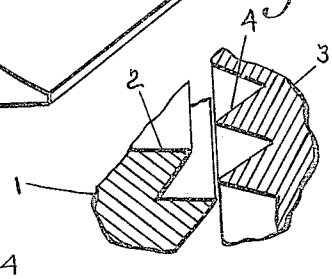
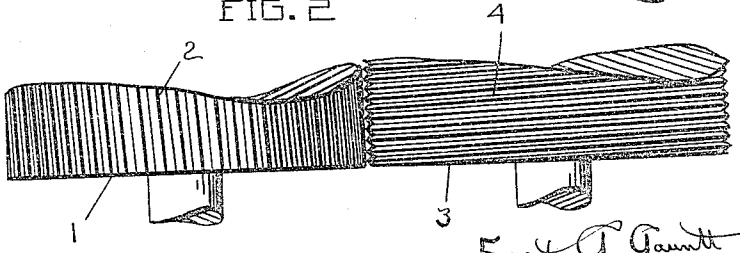


FIG. 2



Witnesses

Gladys Jamesons.

Beatrice Harbaugh

Inventor

Forest G. Gauntt

By Geo. Kirk

Attorney

UNITED STATES PATENT OFFICE.

FOREST G. GAUNTT, OF FORT WAYNE, INDIANA, ASSIGNOR TO W. J. SAVAGE COMPANY, OF KNOXVILLE, TENNESSEE, A CORPORATION OF TENNESSEE.

CEREAL-CUTTER.

1,252,898. Specification of Letters Patent. Patented Jan. 8, 1918.

Application filed February 23, 1915. Serial No. 9,815.

To all whom it may concern:

Be it known that I, FOREST G. GAUNTT, a citizen of the United States, residing at Fort Wayne, Allen county, Indiana, have invented new and useful Cereal-Cutters, of which the following is a specification.

This invention relates to mechanism for cutting material into particles.

This invention has utility when adapted to cutting cereals into squares or cubes, as wheat and corn, say for chicken feed, which cutting can be effected with the fines as low as 1%, and the power consumption of approximately ¼ less than for rolling or grinding, with the same capacity of output.

Referring to the drawings:

Figure 1 is a perspective view with parts broken away showing an embodiment of the invention in a cutting machine of the roller mill type;

Fig. 2 is a fragmentary plan view of a pair of rolls embodying the invention; and

Fig. 3 is a fragmentary perspective on an enlarged scale to more clearly show the ribs of the rolls.

The fast roll 1 is provided with the continuous longitudinally extending ribs 2 having a slight pitch tending to work material toward one end of the roll in operation. The opposing coacting roll 3 has continuous circumferential ribs 4 slightly pitched to counteract the tendency of the pitch of the ribs on the roll 1. The continuous ribs 4 may conveniently be in the form of a thread or spiral.

In operation, the rolls are adjusted as to each other with the desired minimum clearance and the material fed therebetween as the rolls turn toward each other. The ribs 2 take hold of the material and carry it down to the opposing roll 3 and hold it there for the ribs 4 to engage the material and force the material between the rolls by their coaction. This effectually results in a cutting of the material into approximate cubes. With the ribs 2 having a little pitch, there is a tendency to work the material along said pitch and accordingly increase the work toward the after end of the pitch as between the rolls. This progress of the material axially of the rolls is retarded by the counterpitch of the ribs 4 on the roll 3.

The device is of simple construction and possesses great utility, especially in the handling of cereals which it is desired to sub-divide, but not pulverize or grind, and it effects this operation with economy in power as well as efficiency in producing a maximum of volume of the desired grades of cut material with a minimum volume of the powdered or fine material. The relative speeds of the rolls and their pitches are so proportioned to neutralize each other in uniformly handling material between the rolls throughout their length.

What is claimed and it is desired to secure by Letters Patent is:

A mill embodying a pair of rolls, the first roll being provided throughout the extent thereof with longitudinally extending cutting ribs with intervening material feeding grooves, said ribs having a spiral advance in their longitudinal extent whereby material is urged therealong toward one end of the roll, the second roll being provided throughout the extent thereof with circumferentially extending cutting ribs with intervening material feeding grooves, said second roll ribs having a spiral advance in their longitudinal extent opposing the spiral advance of the first roll, whereby material urged toward one end of the first roll is counterurged, and means for rotating the rolls in rendering the feeding grooves effective in bringing material to and distributing such material along the rolls for cutting between the ribs.

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

FOREST G. GAUNTT.

Witnesses:
F. LEE E. ULMER,
JOSEPH F. CRANCE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."