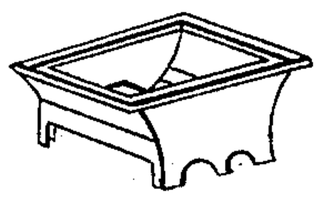
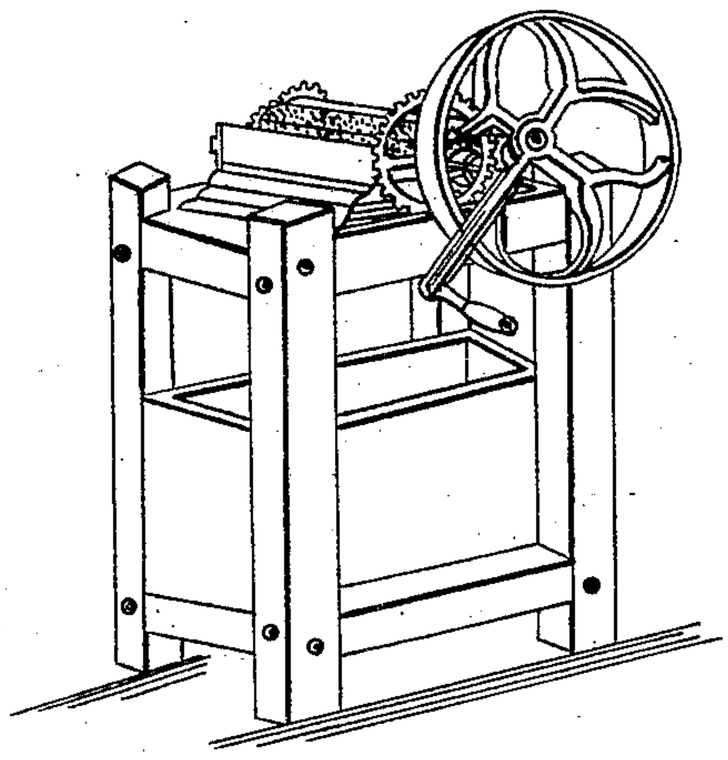
I. WILSON.

Mill for Cracking Corn, &c.

No. 2,192. Patented July 23, 1841.





WITNESSES

Abel J. Loner
John W. Tibbitts.

INVENTOR

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UNITED STATES PATENT OFFICE.

INCREASE WILSON, OF NEW LONDON, CONNECTICUT.

CYLINDER-MILL FOR GRANULATING CORN, POWDER, BARK, AND OTHER SUBSTANCES.

Specification of Letters Patent No. 2,192, dated July 23, 1841.

To all whom it may concern:

Be it known that I, INCREASE WILSON, of New London, in the county of New London and State of Connecticut, have invented a new and useful Improvement in Mills for Granulating Corn, Powder, Bark, and other Substances, and that the following is a full and exact description.

I construct a frame, the top of which may be cast iron, of a proper size to sustain two cylinders, and other parts which will be described hereafter. The cylinders may vary in length or diameter, according to the power by which they are to be operated; and are made of wrought iron, with teeth or cutters, formed on the outside (which may be fine or coarse, according as the substance to be granulated may be wanted). Each cylinder has a bearing one inch in diameter outside of which, on one end of each, is sufficient space to secure on a spur wheel. These cylinders may be eight inches long, between the bearings; the diameter of one, three inches, and of the other two inches, after being turned true.

The teeth or cutters, are formed by cutting spaces straight or angular lengthwise of the cylinders, one quarter of an inch wide, taking nothing off of one side of the space, but cutting down on a bevel to the other side, one eighth of an inch deep. I also cut channels directly around each cylinder, from end to end, which channels are one eighth of an inch wide, and one eighth of an inch deep, leaving a space between each channel somewhat less than one eighth of an inch wide, so that the spaces which are left on one cylinder, may enter freely into the channels made in the other, where they are intended to run. The teeth or cutters being thus formed, the cylinders are case-hardened, or if previously plated with steel (as they may be) they only require to be hardened and tempered in the common way.

Cylinders for granulating powder, may be cast of composition, say about four parts of copper to one part of block tin; after which, the teeth can be formed as before named in making those of iron.

In order to explain the manner of arranging and connecting the cylinders on the frame, I will suppose the ends of the frame, to stand east and west. The large cylinder is placed on the north side of the center and the small one, on the south side, with the teeth of each cylinder projected into the channels of the other, and the teeth of both cylinders pointing south, in which direction they are intended to run. On the west end, on the large cylinder, outside the bearing, I secure a spur wheel, two and a half inches in diameter; at the east end, on the small cylinder outside the bearing, I secure a spur wheel eight inches in diameter. The shaft which has two bearings, I place on the frame, a little north of the large cylinder in boxes on a line with the cylinder boxes. Near the west end on the shaft outside of the bearing, is secured a spur-wheel, three inches in diameter, which is connected with the two and a half inch wheel before named on the large cylinder. Near the east end, on the shaft, outside the bearing, is secured a spur-wheel, three inches in diameter which is connected with the eight inch wheel before named on the small cylinder. On one or both ends of the shaft, a pulley or crank is secured to which the power to operate the mill is applied. A hopper is made to set over the cylinders, which is secured to the frame with screws. A metallic plate is secured on the inside of the hopper, eight inches long, two inches wide, one quarter of an inch thick, having teeth formed on the lower edge, to fit into the channels of the small cylinder, so as to prevent any substance not sufficiently granulated, from passing out between the hopper and the cylinder.

What I claim as my invention, and desire to secure by Letters Patent, is—

The peculiar manner of arranging the cylinders, so as to have the cutters on each cylinder, enter and run in the scores or spaces in the other cylinder, as herein described.

INCREASE WILSON.

Witnesses:

NATHAN BELCHER,

JOHN W. TIBBITTS.