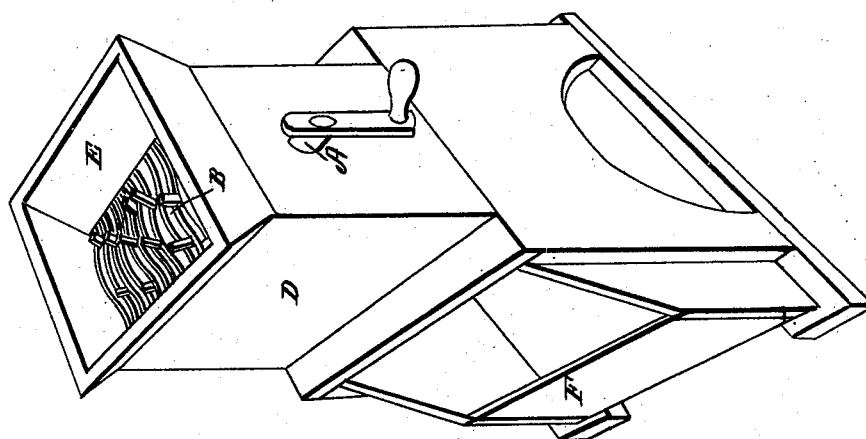
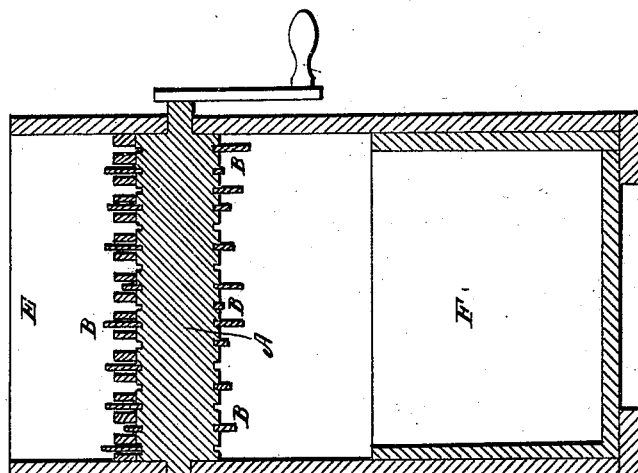


W. BENT.  
Sugar Mill.

No. 591.

Patented Feb. 3, 1838.



# UNITED STATES PATENT OFFICE

WILLIAM BENT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED MILL FOR BREAKING AND CRUMBLING LUMPS OF SUGAR.

Specification forming part of Letters Patent No. **591**, dated February 3, 1838.

*To all whom it may concern:*

Be it known that I, WILLIAM BENT, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful machine called "Bent's Sugar-Mill," for the purpose of breaking down or crumbling lumps of every species of sugar, so as to reduce it into a fine mass without impairing its crystalline structure; and I do hereby declare that the following is a full and exact description.

The nature of my invention consists of a frame box-work of wood, (see drawing marked D,) with a stationary hopper (see drawing marked E) or receiver of the sugar above, and a drawer (see drawing marked F) to receive the pulverized sugar beneath. Midway crossing the center of the said box is a cylinder of wood turned by a crank. (See drawing marked A.) In this cylinder are inserted lengthwise six spiral rows of teeth or cogs, made of iron and steel, (see drawings marked B B B,) which, on turning the crank, pass through an open-work or grating, (see drawing marked C,) made of cast iron and inserted at a small distance above the said cylinder.

In working the said machine the lumps or masses of sugar are thereby crushed by the contact of the teeth with the sugar, forcing the lumps against the said open-work or grating, and letting it fall through into the drawer beneath. Said machine can be worked by every species of power.

The principle or character by which my aforesaid invention is distinguished from all other inventions is in its reducing the sugar by means of the aforesaid teeth crushing the sugar against the said grating, whereas in the methods heretofore used the machine for said purposes consists of two cylinders of wood or iron set in frame-work and nearly in contact with each other, between which cylinders the sugar is passed by turning them with a crank at a great cost of labor. In the old mode the sugar was so crushed as to destroy its crystalline structure, whereas in my invention it retains it.

WM. BENT.

Witnesses:

CHAUNCEY BURKLEY,  
PETER HAY.