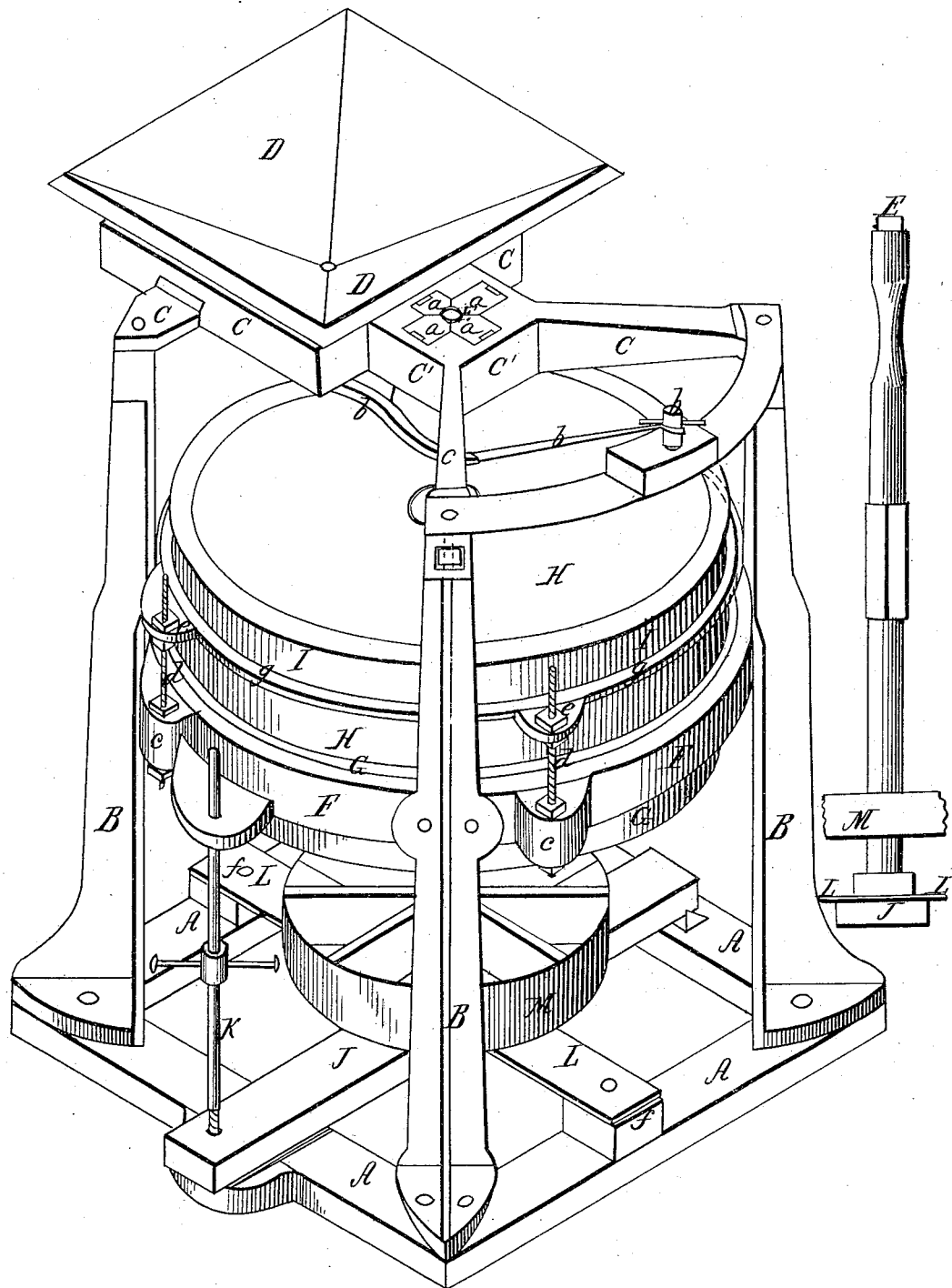


I. STRAUB.

Flour Mill.

No. 1,491.

Patented Feb. 18, 1840.



# UNITED STATES PATENT OFFICE.

ISAAC STRAUB, OF CINCINNATI, OHIO.

## PORTABLE GRIST-MILL.

Specification of Letters Patent No. 1,491, dated February 18, 1840.

*To all whom it may concern:*

Be it known that I, ISAAC STRAUB, of the city of Cincinnati, in the State of Ohio, have invented certain improvements in the Manner of Constructing Portable Grist-Mills to be Driven by Horse or other Power; and I do hereby declare that the following is a full and exact description thereof.

My first improvement consists in the addition of an elastic bridge tree, to the ordinary bridge tree by which the spindle is raised and lowered, which additional bridge tree I usually make of a strip of wrought iron. My second improvement is in the manner of affixing and running the spindle, said spindle being sustained by a permanent step at its lower end, and by an adjustable quarter bush at its upper end, there not being any bush, or support, between its two extremities.

I usually make the whole frame of my mill of cast-iron, in the form represented in the accompanying drawing; the dimensions which I shall give may, of course, be varied, but for a mill which I deem the most convenient in size, I have found the respective proportions given to answer well in practice.

In the drawing, A, A, represents a quadrangular base, each side of which is twenty-five inches long, and three inches wide. From each corner of this base rises a vertical post B, thirty-one inches high, which posts are firmly secured to the base by nuts and bolts, or otherwise.

C, C, C, is a cast-iron, horizontal cap piece which is secured by nuts and bolts to the upper end of each of the vertical posts; this cap piece is so formed as to sustain the hopper D, D, and its center portion C', C', receives the quarter bush *a, a*, in which the upper end E, of the spindle runs, said quarter bush being regulated by means of wedges, or screws, in the ordinary manner. The appurtenances *b, b*, for regulating the shoe, are similar to those used in other mills. The stones used in the mill of this size are twenty-two inches in diameter; the lower one, or runner, G, G, which is fastened to the spindle by pouring in melted metal between it and the spindle, or in any other adequate mode, stands at about a foot above the lower end of the spindle. F, F, is a cast iron ring, two feet in diameter in the clear, within which said lower stone runs. This ring may

be three inches wide, and one inch thick. It has four lugs *c, c*, upon it, through which pass tempering screws *d, d*, for the purpose of tramming the upper stone H, H. This latter stone is fastened into a cast-iron ring I, I, and is afterward backed with plaster; the ring I, I, has lugs *e, e*, corresponding with those on the ring F, F, and through which pass the screws *d, d*, which are furnished with nuts, to make the necessary adjustments.

J, is an ordinary bridge tree, which may be raised and lowered by means of the screw shaft K, in the usual mode. L, L, is a bar, or strap, of wrought iron, three inches wide, and one fourth of an inch thick, which lies upon the ordinary bridge tree, crossing it at right angles immediately under the center of the spindle; it is attached to the lower frame at *f, f*. To the upper side of this elastic bridge tree, the step and oil cup of the spindle are attached; and from the elasticity of this bar, or additional bridge tree, the spindle can be sufficiently raised and lowered by the action upon it of the ordinary bridge tree, and it will, of necessity, be raised and lowered vertically.

A flanch, or projecting rim *g, g*, may be formed upon the ring I, I, to which to attach a hoop, or curb, of sheet iron, which is to descend down within the ring F, F, and embrace the runner.

M, is a whirl on the spindle, by which motion may be given to it.

Having thus fully described the manner in which I construct my portable grist mill, and in so doing having mentioned many parts which I do not claim as making any part of my invention, I do hereby declare that my improvement, and what I claim to have secured to me by Letters Patent, consist—

In the additional bridge tree, made of wrought iron, or other elastic material, having on its upper side the step of the spindle, its ends being attached to the base of the frame, and the raising and lowering of it being effected by the ordinary bridge tree, in the manner, and for the purpose, described.

ISAAC STRAUB.

Witnesses:

THOS. P. JONES,  
GEORGE WEST.