H. C. VELIE.

Grinding Mill.

No. 28,923. Patented June 26, 1860.

Fig. 4.

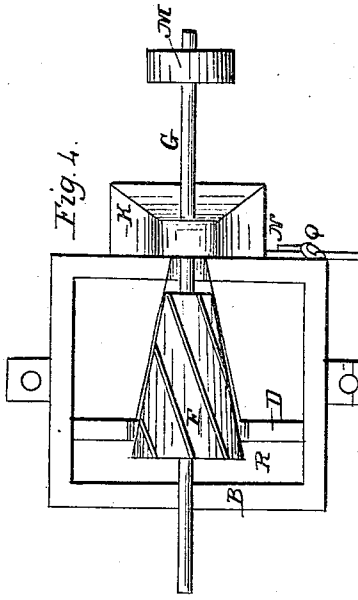


Fig. 3.

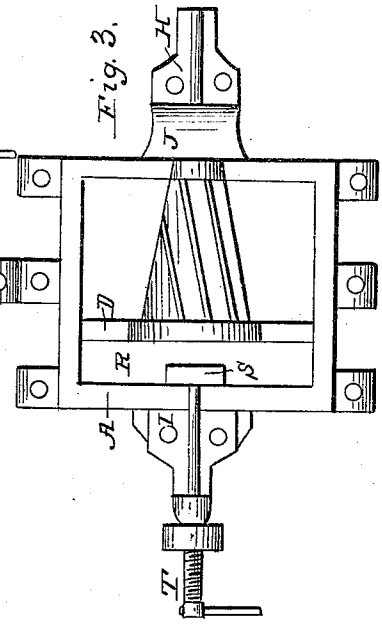


Fig. 1.

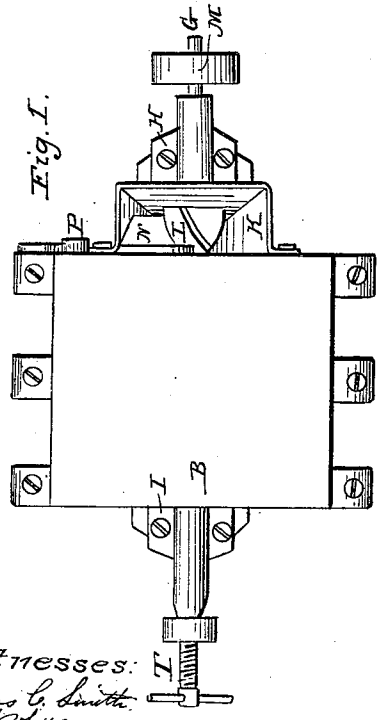
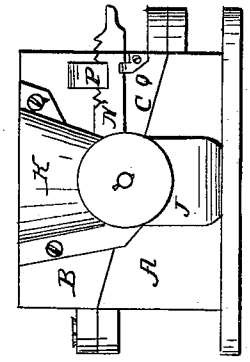


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY C. VELIE, OF POUGHKEEPSIE, NEW YORK.

MILL.

Specification of Letters Patent No. 28,923, dated June 26, 1860.

To all whom it may concern:

Be it known that I, HENRY C. VELIE, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Mills for Grinding; and I do hereby declare that the same are described and represented in the following specifications and drawings.

To enable others skilled in the art to make and use my improvements I will proceed to describe their construction and operation, referring to the drawings in which the same letters indicate like parts in each of the figures.

Figure 1, is a plan or top view of a mill with my improvements. Fig. 2, is an elevation of one end. Fig. 3, is a plan of the top of the lower portion of the mill, the top being removed. Fig. 4, is a plan of the inside of the top with the cone and shaft in place.

The nature of my invention consists in the improvements in mills for grinding hereafter set forth and described.

In the accompanying drawings A, is the lower, and B, the upper portion of the case of the mill, made of cast iron in the form shown in the drawing, and divided on the diagonal line C, Fig. 2, so as to form an inclined joint between the bottom and top parts of the case. Each portion of the case has a partition D in it as shown in Figs 3, and 4, and the lower portion has some projections at the corners which are perforated for the screws which are to fasten the mill in its place. There are also projections E, E, on each part of the case which are perforated for the screws which hold the two portions of the case together.

The largest space in each portion of the case is filled with French bur or some other kind of grinding stone, adapted to grind the substances intended to be ground; and the stones may be cemented into the case with plaster, and cut to the inclined joint of the case, and hollowed out to fit the rotating conical stone F, which is turned between them by the shaft G, to which it is fastened, so as to effect the grinding of the substance supplied to be ground, and the rotating stone, as well as the stones in the case may be furrowed as shown in the drawing or otherwise, so as to adapt them to the purposes intended. The shaft G, to which the stone F, is fastened, is arranged to turn in the boxes H, and I, which boxes may be cast with the case, so as to form one piece with it, or the stands which support the boxes may be cast with the case, and the boxes fitted into or fastened onto the stands. The arm J is cast on the case and joins it near the bottom; it extends out and is curved upward to support the box H, (for the shaft G,) some distance from the case; so as to allow the hopper to be made around the shaft between the box H and the end of the case, and the stirrer L, is fastened to the shaft G, in the hopper to stir the grain or substance to be ground and urge it in between the stones, as it is grooved spirally for that purpose. The pulley M, is fastened to the shaft G, for a band from some moving power to turn the mill.

The gate N, is arranged to work through the side of the hopper K, as shown in Fig. 2, to graduate the supply of grain to the mill; and this gate is provided with a series of notches which are held against the catch P, by the spring Q, so as to hold the gate in place when it is adjusted and prevent it from being moved by the shaking of the mill. The meal as it is ground passes into the space R, and through the hole S, out of the case.

The screw T, in the end of box I, acts against the end of the shaft G, so as to adjust the position of the running stone, and make it grind fine or coarse as desired.

The bur stones that are sold in this country generally have one edge much thicker than the other, which has induced me to make the case of the mill with an inclined joint, so as to adapt it to the shape of the stone and thereby save a great deal of labor in dressing the stone, and at the same time retain its thickness, so that it will wear far longer, thereby making the mill both cheaper and better as it will wear longer and do a greater amount of service in grinding.

I believe I have described and represented the improvements in mills for grinding which I have invented, so as to enable any person skilled to make and use them. I will now state what I desire to secure by Letters Patent.

I do not claim casting the boxes for the mill shaft on or with the case of the mill. But

What I do claim is—

Casting the arm J, on the case of the mill to support the journal of the shaft and allow room for the hopper around the shaft, between said arm, and the case of the mill substantially as described.

HENRY CLAY VELIE.

Witnesses:

GEO. W. PAINE,
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