2 Sheets--Sheet 1.

A. H. WAGNER.

Improvement in Grist-Mills.

No. 115,791. Patented June 6, 1871.

Fig. 1.

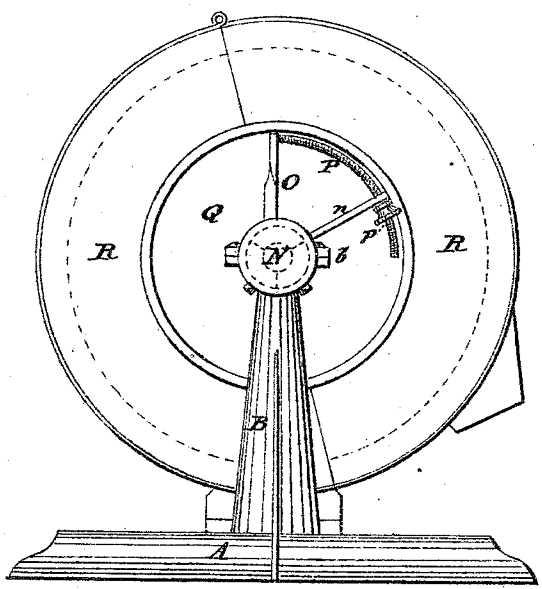
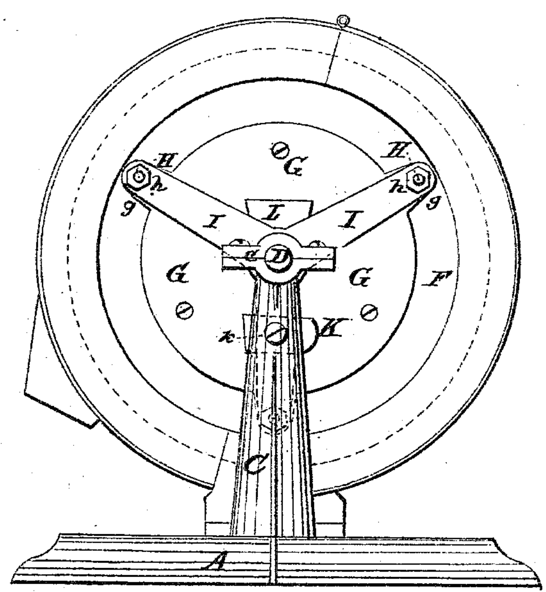


Fig. 2.



Witnesses.

R. A. LeMerle

C. H. Poole

Inventor.

A. H. Wagner, by Prindle and Dyer, Attys.

2 Sheets--Sheet 2.

A. H. WAGNER.

Improvement in Grist-Mills.

No. 115,791. Patented June 6, 1871.

Fig. 3.

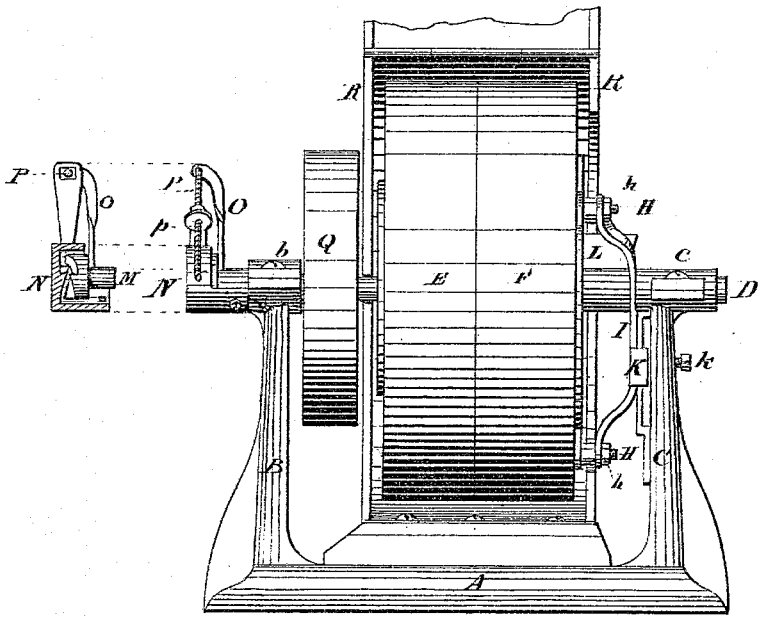


Fig. 5.

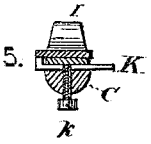


Fig. 6.

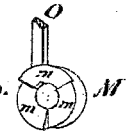


Fig. 7.

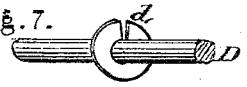
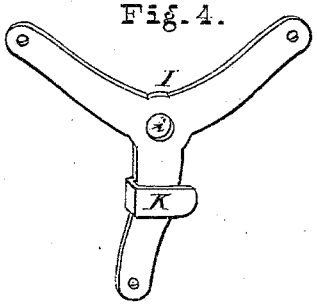


Fig. 4.



Witnesses.

A. L. Lemb

C. H. Poole

Inventor.

A. H. Wagner, by

Prindle & Dyer,

Attys.

UNITED STATES PATENT OFFICE.

AUSBERT H. WAGNER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN GRIST-MILLS.

Specification forming part of Letters Patent No. 115,791, dated June 6, 1871.

To all whom it may concern:

Be it known that I, AUSBERT H. WAGNER, of Chicago, in the county of Cook and in the State of Illinois, have invented certain new and useful Improvements in Grist-Mills; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figures 1 and 2 are elevations of opposite sides of my improved mill. Fig. 3 is a front elevation of the same, with a portion of the casing broken away so as to show the arrangement of the stones. Fig. 4 is a perspective view of the spider used for holding in position the fixed stones. Fig. 5 is a horizontal section of said spider and one of the standards on the line *x x* of Fig. 3. Fig. 6 is a perspective view of the adjustable step or bearing for the end of the spindle; and Fig. 7 is a perspective view of a section of said spindle with the feeding device secured thereon.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement in what is known as "French-bur mills," in which the stones are secured upon a horizontal shaft and revolve in vertical planes; and it consists, principally, in the means used for securing in place and adjusting the fixed stone, substantially as and for the purpose hereinafter specified. It further consists in the means employed for adjusting the revolving stone to or from the fixed stone, substantially as and for the purpose hereinafter set forth.

In the annexed drawing, A represents the base, from opposite sides of which extend vertically upward two standards, B and C, having within their upper ends suitable boxes, *b* and *c*, for containing the shaft or spindle D. The movable stone E is secured to and revolves with the spindle, while the second or fixed stone F is connected with the standard C by the following-described means: Attached to its outer face is a metal plate, G, provided with three radially-projecting arms, *g*, from each of which projects horizontally outward a screw, H, containing two nuts, *h*, between which and over said bolt is placed the end of a three-armed spider, I, shown in Fig. 4. The center of said spider I is provided with an opening, *i*, corresponding in size with the spindle D, upon which it is placed, its arms being so curved as to bring its outer face, at its center, against the inner end of the box *c* when the stone is in position. Projecting horizontally outward from the edge of one of the arms of the spider, in a line with the spindle D, and then rearward at a right angle to said spindle, is a lug, K, which passes through a suitable slot formed within the standard C, and is secured therein by means of a set-screw, *k*, passing inward through said standard, with its inner end bearing against the outer face of said lug. As thus arranged the spider is held in radial position by the shaft, and in vertical position by the confined lug, so that, by means of the nuts *h*, placed upon opposite sides of the arms of said spider, it is easy to adjust the stone F to its proper position, with its face at a right angle to the line of the spindle. The center of the fixed stone being recessed out to a sufficient size to permit of the passage of grain, the latter is admitted thereto by means of a chute, L, semicircular, and closed at its lower side, and open and flaring at its upper side, which chute is fixed to the face of the plate G, and incloses the spindle. A collar, *d*, passing spirally once around the spindle D, immediately within the inner end of the chute L, feeds the grain admitted to the latter into and through the central opening of the stone and insures a regularity in the passage of said grain that would otherwise be impracticable.

The movable stone E is adjusted to or from the fixed stone F by means of a bearing or step, M, having a cylindrical form exteriorly, and provided upon one end with a series of inclined faces, *m*, which, when said bearing is placed against the end of the spindle and within a suitable box, N, attached to the outer end of the box *b*, rest within corresponding recesses formed within said box N, so that when said bearing is rotated it will be pressed outward from or permitted to pass into said box. In order that the step or bearing may be rotated at will and secured in position, an arm, O, is secured to and extends radially outward from the same, and is provided at its outer end with a curved bolt, P, having fitted thereon a thumb-nut, *p*. An arm, *n*, extending upward from the box N, and provided at

its outer end with an opening through which is passed said bolt, completes the device, the operation of which is as follows:

When it is desired to press the stones together the nut *p* is screwed inward upon the bolt and against the arm *n*, so as to rotate the step forward and cause it to be forced outward from its box, moving with it the spindle; but if it is desired to separate said stones said nut is moved in an opposite direction, and the step turned rearward, so as to cause its inclined faces to slide into the corresponding recesses within the box. A pulley, Q, being attached to the spindle, and the stones inclosed by means of a suitable casing, R, the mill is ready for use.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The means employed for securing in place and adjusting the fixed stone, consisting of the spider I provided with the angular arm or lug K, and the screws H provided with the nuts *h*, in combination with the plate G and standard C, substantially as shown and described.

2. The means employed for adjusting relatively the stones E and F, consisting of the step or bearing M provided with the inclined faces *m*, fitted within a corresponding box, N, and against the end of the spindle D, and capable of being partially rotated in either direction by any suitable mechanism, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of April, 1871.

AUSBERT H. WAGNER.

Witnesses:

C. J. CORSE,

JNO. R. KING.