

J. G. Siemmers.

Grinding Mill.

Nº 15,346.

Patented Jul. 15, 1856.

Fig. 1.

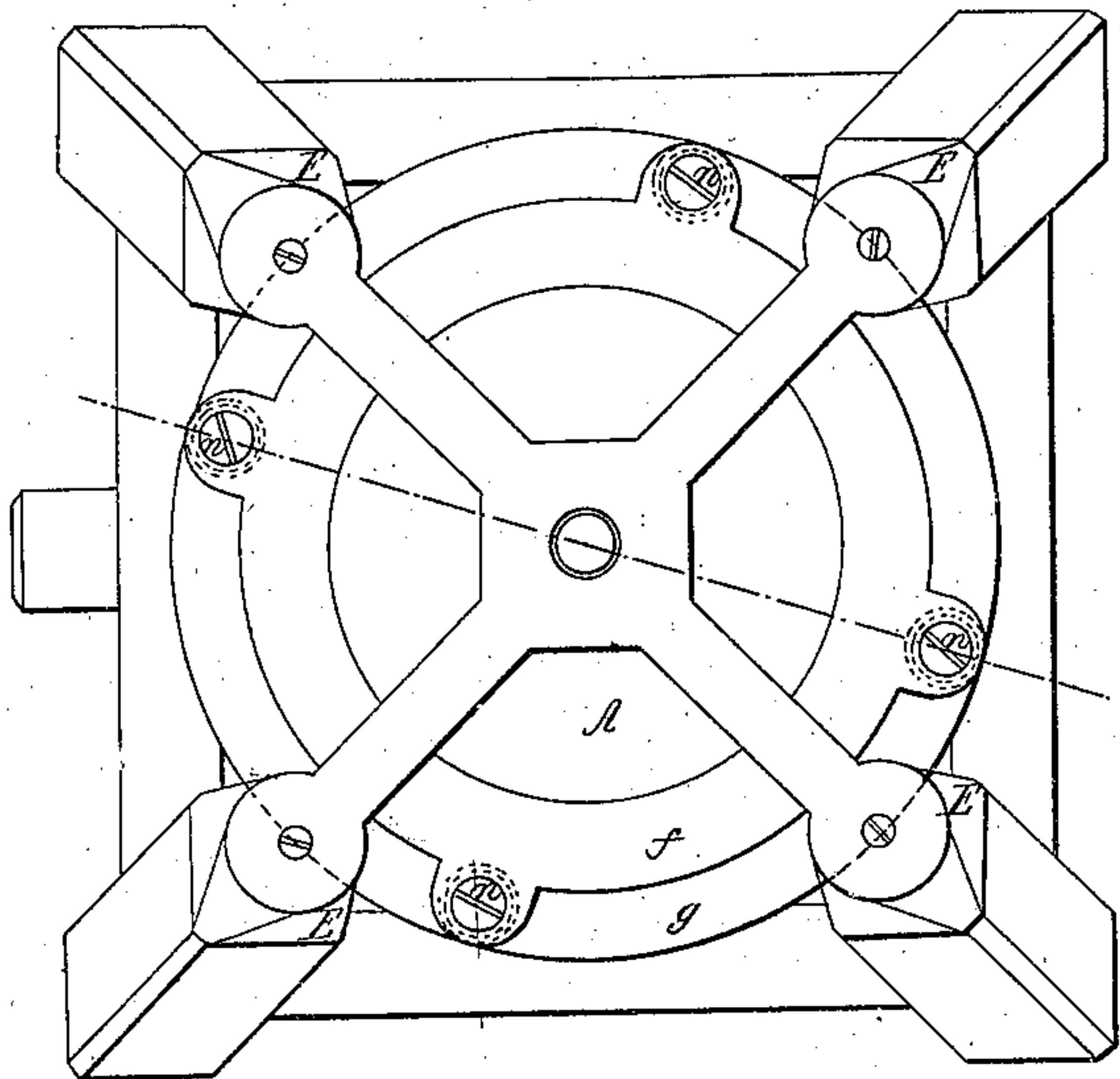


Fig. 5.

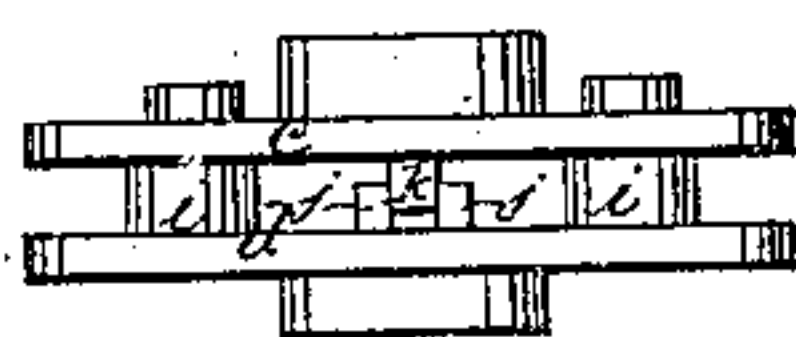


Fig. 4.

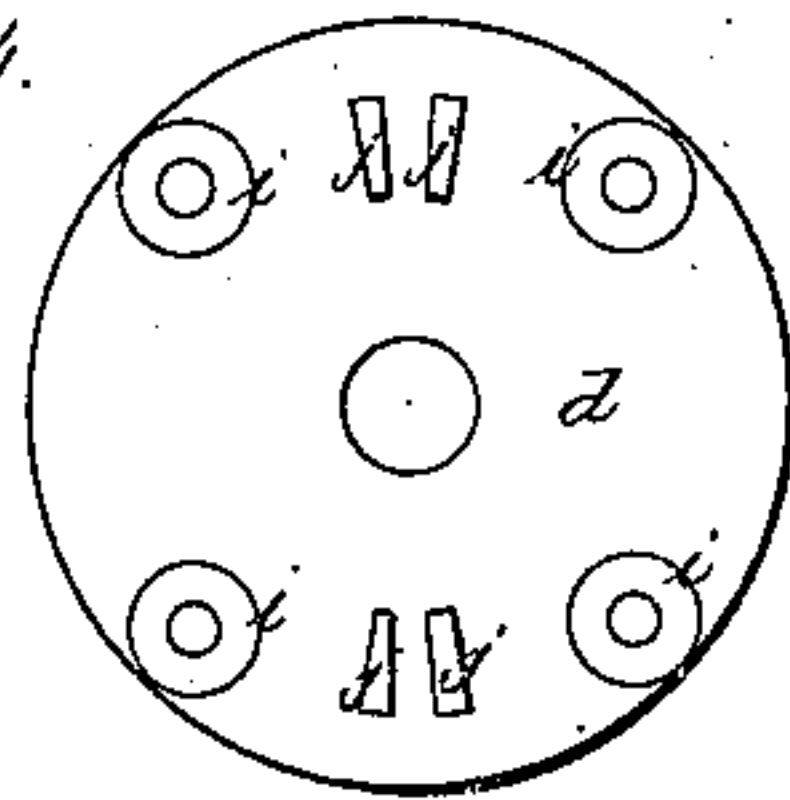


Fig. 3.

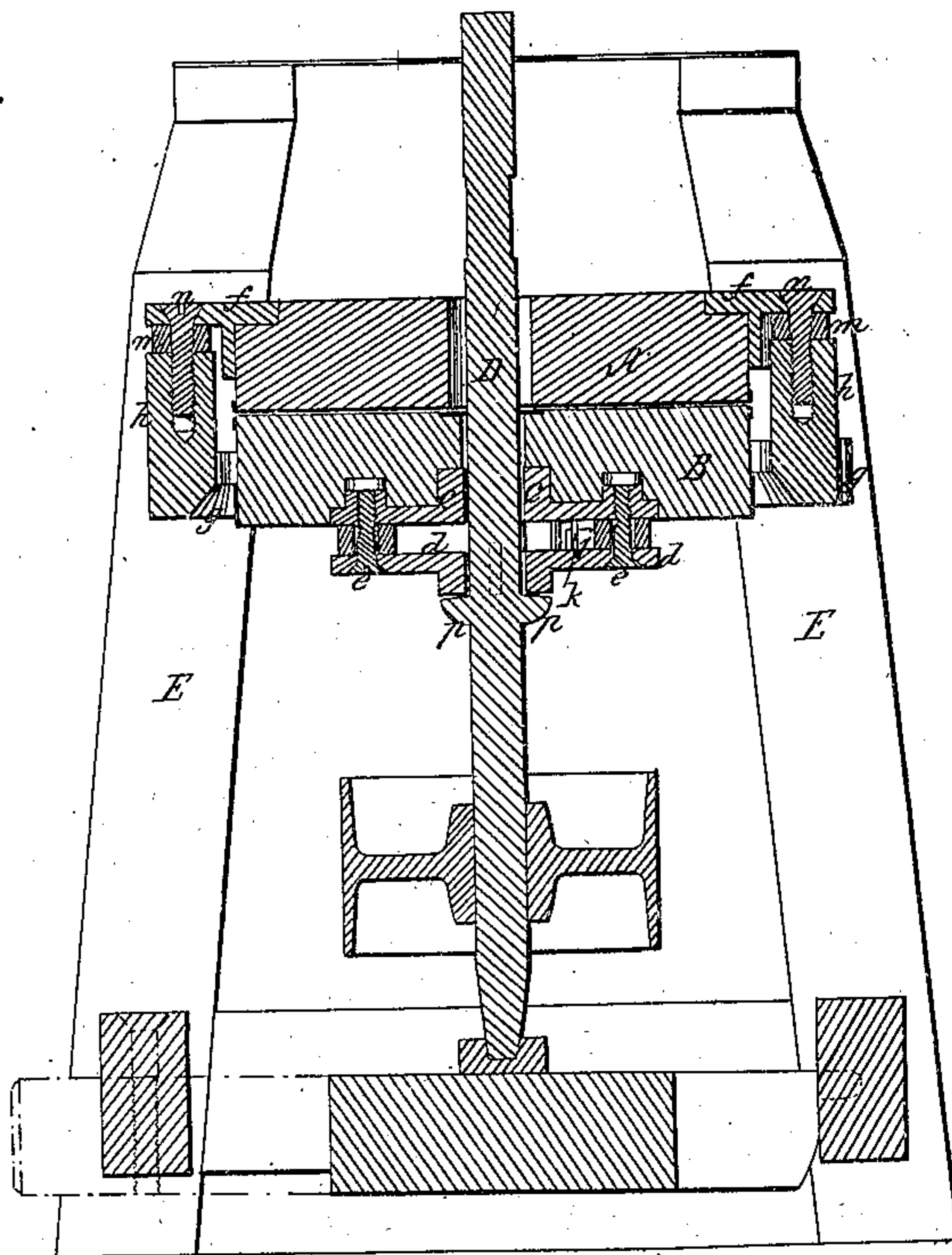
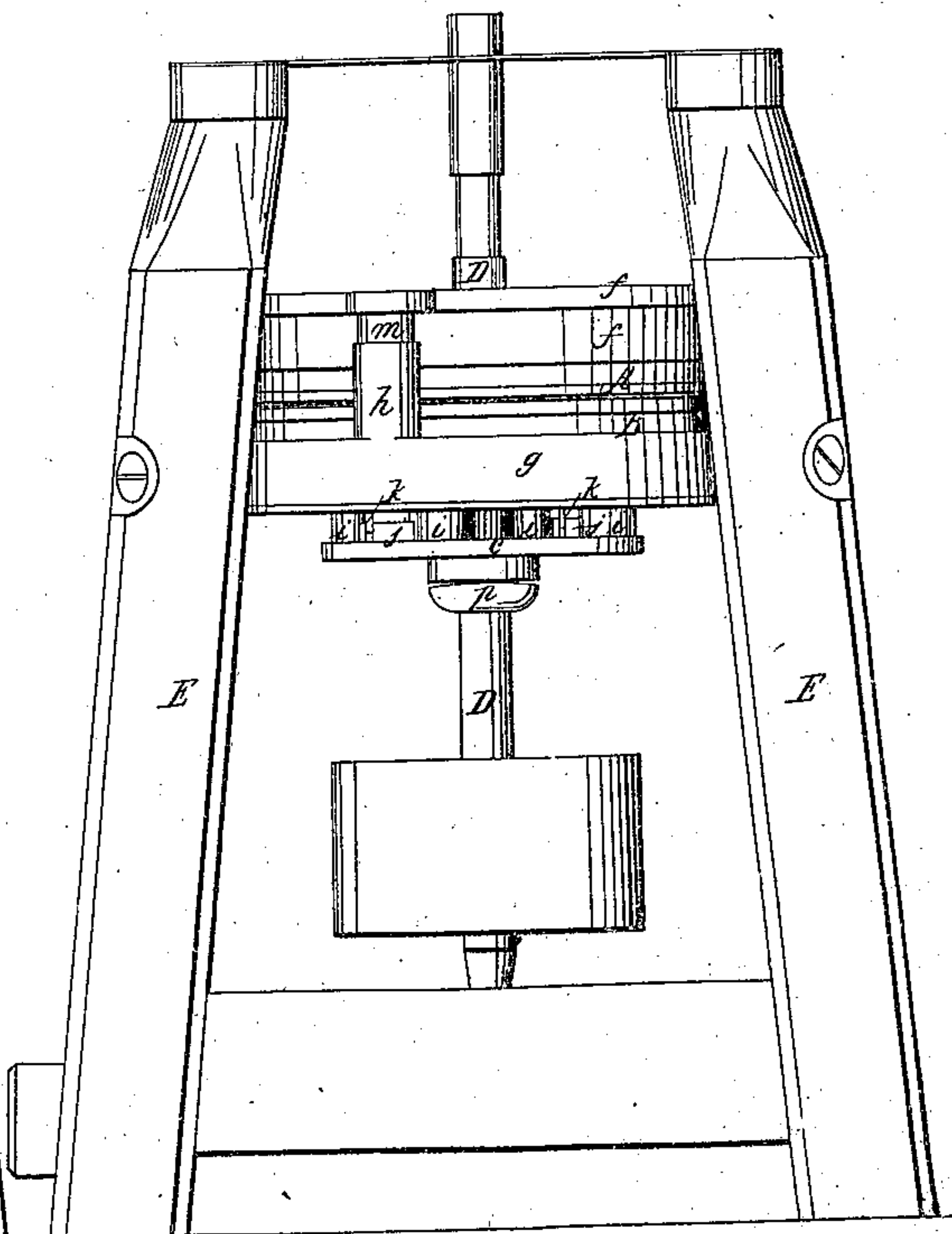


Fig. 2.



UNITED STATES PATENT OFFICE.

J. G. SIEMERS, OF ST. LOUIS, MISSOURI.

ADJUSTMENT OF MILLSTONES.

Specification of Letters Patent No. 15,346, dated July 15, 1856.

To all whom it may concern:

Be it known that I, J. G. SIEMERS, of the city of St. Louis, in the State of Missouri, have invented a new and useful Improvement in Portable Grinding-Mills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, Figure 1 being a top view of my improved grinding mill with the hopper removed; Fig. 2, a side elevation thereof; Fig. 3, a vertical section in the line *y y* of Fig. 1; and Figs. 4 and 5 are representations of portions of said mill detached.

Similar letters indicate like parts in all the drawings.

The supporting frame of my improved portable grinding mill, is composed of four posts *E*, united to each other at their lower ends by strong beams, and connected to each other near their upper ends by a metallic ring *g*, that supports the stationary grinding stone *A*, with which it is connected in the following manner, viz: The said stationary stone is secured within a flanged metallic rim *f*, whose projecting ears rest upon springs *m*, placed upon the upper ends of tubular projections *h*, that rise from the aforesaid ring *g*, the said flanged rim of the stone *A*, being kept in place and adjusted to any desired position, by means of set screws *n*, which pass through the projecting ears of said rim, and through the springs *m*, into female screws formed within each of the said projections *h*, of the ring *g*.

The running stone *B*, is connected to the shaft *D*, in the following manner, viz: The diameter of the shaft *D*, is enough less than that of the hole in the running stone, to allow of considerable play therein. A metallic disk *c*, whose central perforation nearly corresponds with that in the stone *B*, is rigidly secured to the under side of said stone; this disk *c*, has three, four, or more screw perforations near its outer periphery, for the reception of the set screws *e*, *e*, which serve to connect the said disk to another disk *d*, of corresponding shape, placed a short distance below it and separated therefrom by the springs *i*, *i*. The hub of the disk *d*, rests upon the beveled

surface of the projection *p*, on the shaft *D*, and supports the weight of the said running stone *B*.

The central holes in the running stone and in the disks *c*, *d*, being of such a size as to allow the shaft *D*, a considerable amount of play therein, and the weight of said stone being supported upon the series of springs *i*, *i*, enables the position of said stone to be adjusted upon its shaft with the greatest accuracy, by turning the set screws *e*, *e*. The weight of the stationary stone *A*, being supported upon the springs *m*, *m*, enables the position of said stone to be at any time accurately adjusted by turning the set screws *n*, *n*. The stationary stone *A*, and the runner *B*, being both respectively supported upon series of springs, enables their faces to self-adjust themselves to each other, and also enables them to spring outward, when any hard substance gets in between them, without breakage or injury to the mill.

The series of springs *i*, *i*, and *m*, *m*, may be made of caoutchouc, gutta percha, or any other suitable material.

The lower metallic disk *d*, is secured to the shaft *D*, by means of a feather on the shaft working into a groove in the perforation in said disk. To prevent any lateral strain from being exerted upon the set screws *e*, *e*, the upper and lower disks *c*, *d*, are coupled to each other by means of pairs of lugs *j j*, rising from the disk *d*, and embracing between them single lugs *k*, descending from the disk *c*, as shown in Fig. 5.

I am aware that various methods have been employed for giving the face of the running stone an elastic bearing against the stationary stone, and therefore I wish it to be understood that I do not claim as my invention any arrangement of the running stone or its spindle, by which an elastic bearing of said running stone against the stationary stone, is produced; but

What I do claim and desire to secure by Letters Patent, is—

Supporting the stationary stone upon a series of elastic and readily adjustable bearings, when the said stationary stone is combined with a running stone which rests upon a series of elastic and readily adjustable bearings which are combined therewith, and

with the spindle or shaft of the same, in such a manner that the faces of said stationary and running stones are enabled to mutually self adjust themselves to each other, and are also enabled to be adjusted substantially as herein set forth.

The above specification of my improve-

ment in grinding mills signed and witnessed this 24th day of March 1856.

J. G. SIEMERS.

Signed in presence of—

CHAS. TODD,

WASHINGTON TODD.