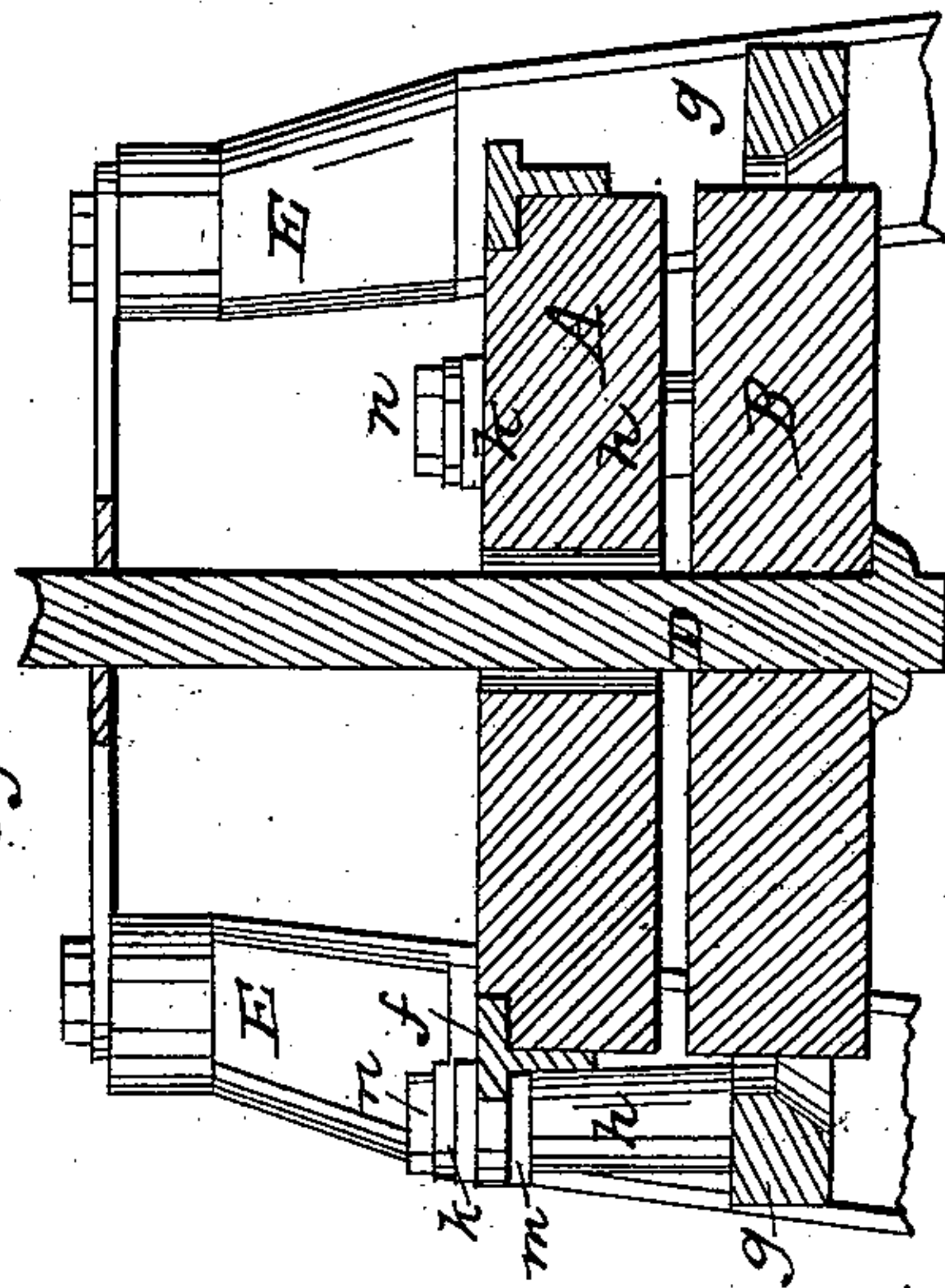
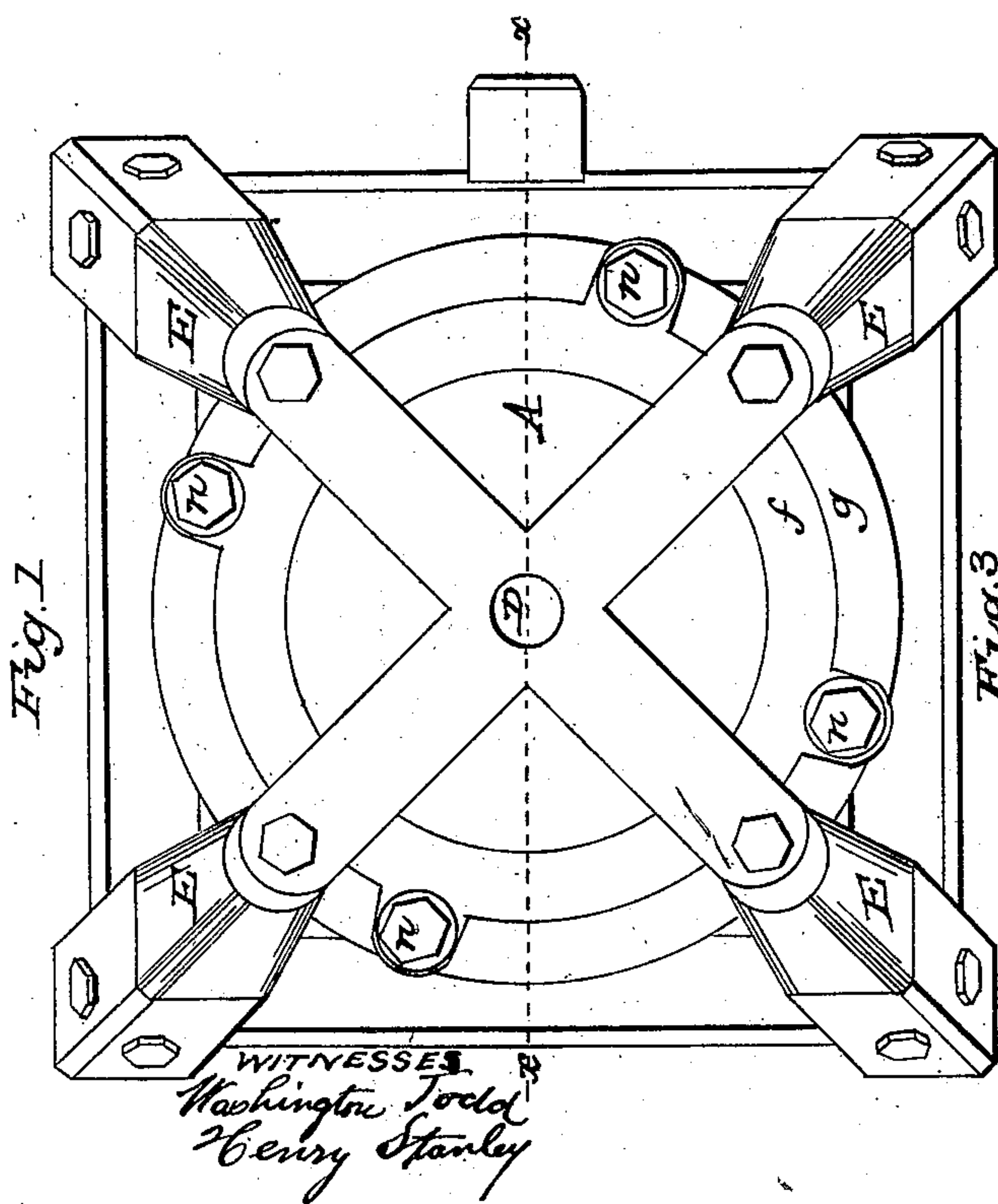
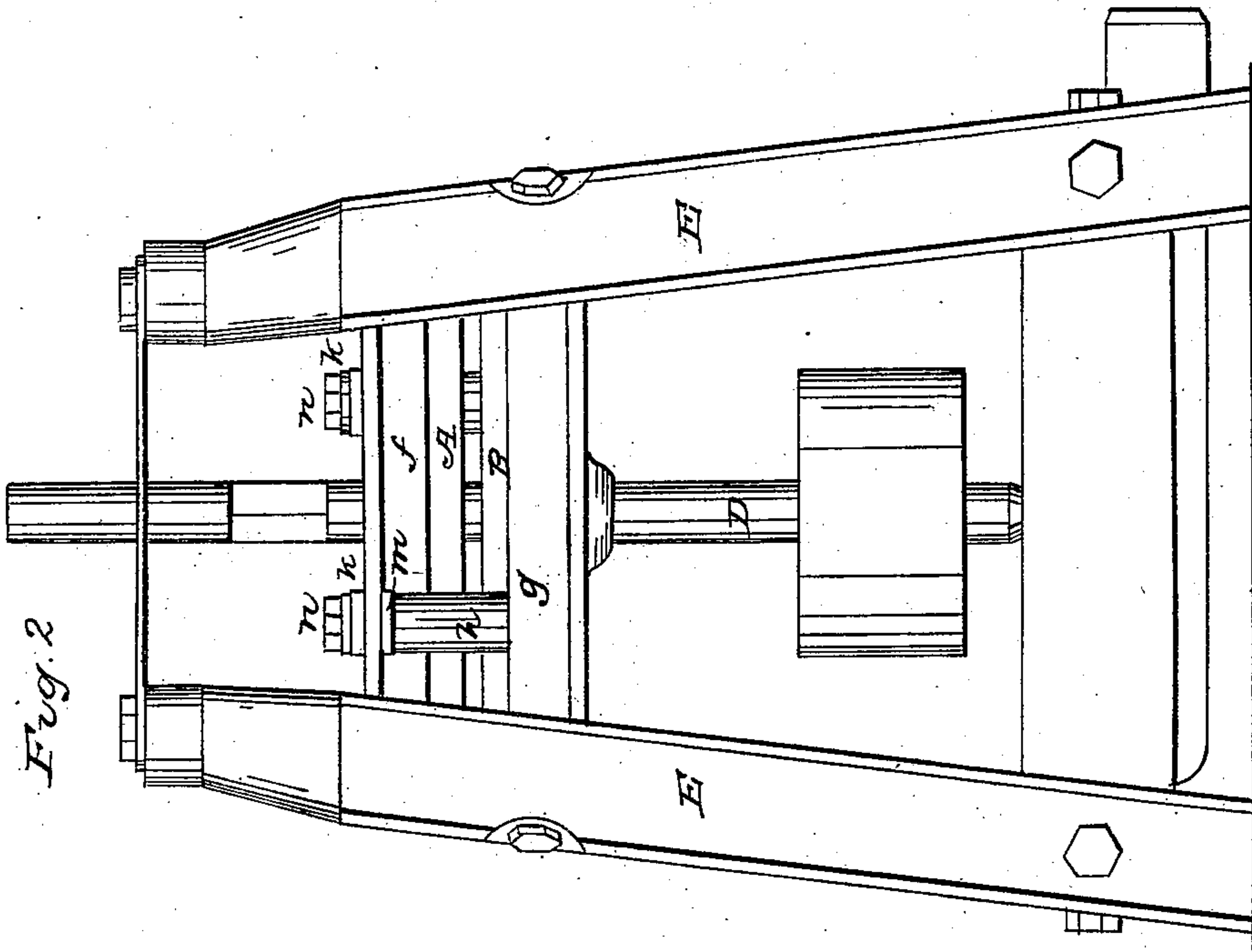


G. TODD.
Grinding Mill.

No. 23,799.

Patented April 26, 1859.



INVENTOR
George Todd

UNITED STATES PATENT OFFICE.

GEORGE TODD, OF ST. LOUIS, MISSOURI.

GRINDING-MILL.

Specification of Letters Patent No. 23,799, dated April 26, 1859.

To all whom it may concern:

Be it known that I, GEORGE TODD, of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in
5 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.

10 Figure 1, is a top view of my improved grinding mill, minus the hopper; Fig. 2, a side elevation of the same, and Fig. 3, a section in the line *x, x*, of Fig. 1.

Similar letters indicate corresponding
15 parts in each of the drawings.

In its general appearance my improved grinding mill is substantially like that of J. G. Seimers, which is secured by a patent bearing date the 16th day of July 1856. In
20 the Seimers grinding mill the point of novelty consists in "supporting the stationary stone upon a series of elastic and readily adjustable bearings when the said stationary stone is combined with a running stone
25 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 the said stationary and running stones
30 are enabled to mutually self-adjust themselves to each other and are also enabled to be adjusted substantially as set forth" in Seimers' patent.

The business firm of which I am the senior partner, is the owner of the Seimers patent, which is above referred to and have constructed quite a number of the grinding mills which are protected by said patent; but the manner of connecting the running
40 stone to the spindle in these mills is so complicated and expensive that we have not found so ready a sale for them as we have for mills of a more simple construction and lower price.

45 By repeated experiments I have ascertained that by supporting the ears of the metallic rim (*f*) of the stationary stone, (*A*), upon a series of springs, (*m, m*), at the same time that a series of similar springs
50 (*k, k*) are placed upon the said ears for the heads of the adjusting screws (*n, n*), to act against, that the runner (*B*) may be rigidly

combined with the spindle (*D*), and yet the face of the stationary stone can be as readily brought to a perfectly parallel position
55 with that of the runner as the same can be effected in the Seimers grinding mill; and any unyielding substance that may chance to get between the stones of my said improved mill, is readily discharged therefrom
60 without producing any injurious strain.

Therefore, the novelty in this my improved grinding mill, consists in placing the bearing ears which radiate from the rim of the stationary stone between double
65 sets of springs whose elasticity is governed and controlled by adjusting screws in such a manner that the desired position of the said stone can be readily obtained without danger of confining the stone in so rigid a
70 position that it cannot at any time spring outward a sufficient distance to discharge from the mill any unyielding substance that may find its way into the same.

The supporting frame of my improved
75 grinding mill is composed of four corner posts (*E*) and the respective parts which connect the said posts to each other. One of the parts of the said supporting frame is the metallic ring *g*, which is
80 received into notches in the inner angles of the corner posts and is firmly held in its position by screw-bolts or any other suitable fastenings. A suitable number of hollow projections *h, h*, which rise from the upper
85 face of the ring *g*, serve as supporters to the stationary stone *A*, which is securely fitted into the metallic rim *f*. Female screws are formed within the hollow supporters *h, h*, for the reception of the screws *n, n*, which in
90 connection with the double series of springs *m, m* and *k, k*, serve to secure the stationary stone in its proper position. The series of under bearing springs *m, m*, (which are placed between the upper ends of the hollow
95 supporters *h, h*, and the ears which project from the metallic rim *f*, of the stationary stone) may be made of vulcanized india rubber or gutta percha, or may be made of any suitable metal. The series of springs *k, k*,
100 which rest upon the ears of the metallic rim *f*, and are acted upon by the heads of the screws *n, n*, may also be made of any suitable elastic material.

Having thus fully described my improved grinding mill what I claim as my invention and desire to secure by Letters Patent, is—

5 Securing the ears of the rim (*f*) of the stationary stone (*A*) between double series of upper and lower springs (*m, m,* and *k, k,*) whose elasticity is governed and controlled

by the series of adjusting screws *n, n,* substantially in the manner and for the purpose herein set forth.

GEORGE TODD.

Witnesses:

WASHINGTON TODD,
HENRY STANLEY.