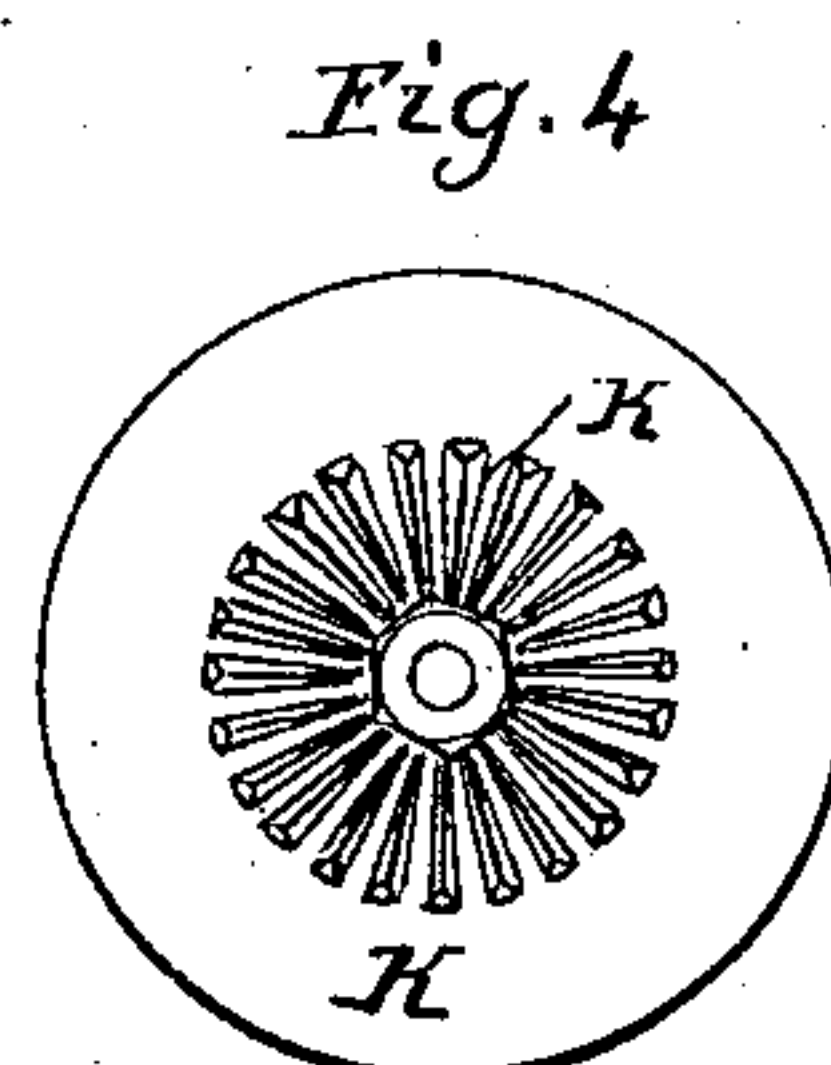
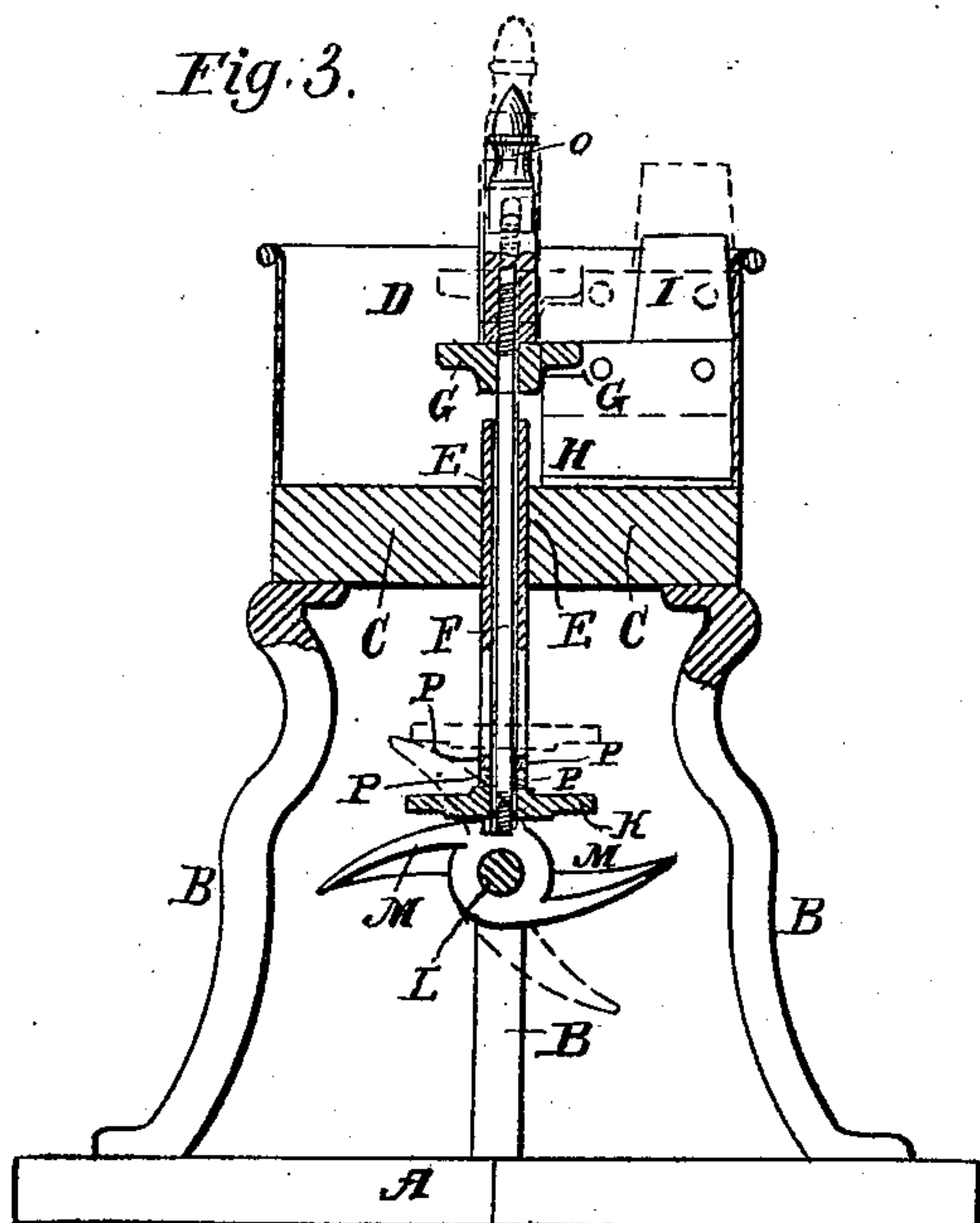
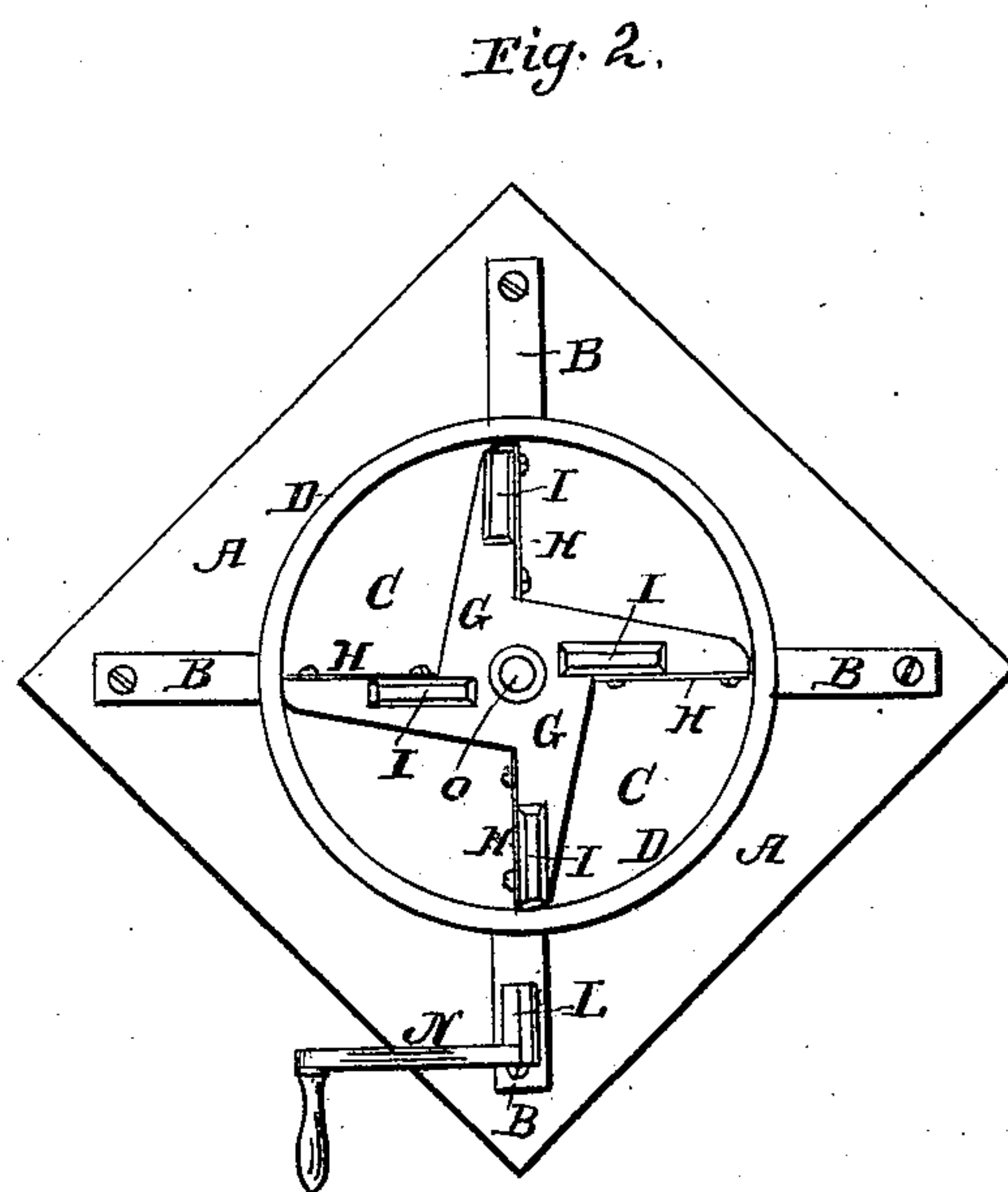
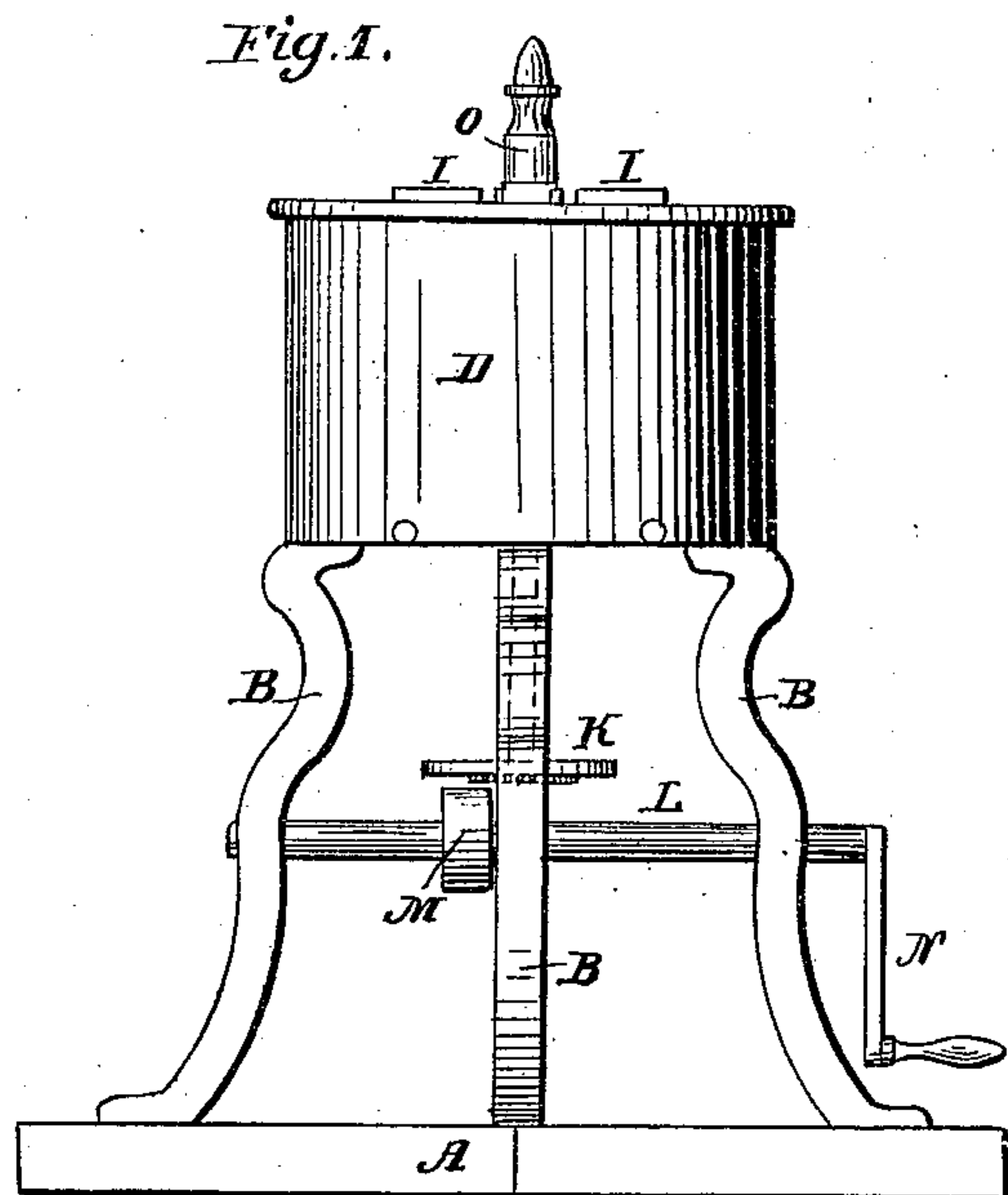


W. H. ALLEN.
Meat Chopper.

No. 12,373.

Patented Feb. 13, 1855.



UNITED STATES PATENT OFFICE.

W. H. ALLEN, OF LOWELL, MASSACHUSETTS.

MACHINE FOR CHOPPING MEAT AND OTHER SUBSTANCES.

Specification of Letters Patent No. 12,373, dated February 13, 1855.

To all whom it may concern:

Be it known that I, WM. H. ALLEN, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented
5 certain new and useful Improvements in Chopping and Pulverizing Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings,
10 making a part of this specification, in which—

Figure 1 is a front elevation; Fig. 2, a plan; Fig. 3, a longitudinal vertical section
15 through the center of the machine, and Fig. 4, a plan of the lower surface of the corrugated cam plate.

Similar letters of reference in each of the several figures refer to like parts.

20 A, is a base, to which the frame B is fastened. On top of the frame B, is fastened a circular board or block, C, of hard wood; surrounding which and extending upward from it, is the casing D, of tin or other material. The block C, and casing D form a
25 receptacle into which the material to be chopped or pulverized is placed.

In the center of the circular block C, is inserted a fixed tube or bushing E, long
30 enough to extend through the block and project both above and below it to a convenient distance. The upright shaft F, which plays freely up and down in the tube E, has fastened to its upper end the cutter head G,
35 which consists of four arms, having attached to one side of them, the four knives H, H, H, H, and to the other side of them, the four hammers I, I, I, I.

To the lower end of the shaft F, is fastened the corrugated cam plate K, and directly beneath this plate, upon the horizontal
40 shaft L, is fixed the duplex cam M. The shaft L is supported at each end in bearings in the frame, and motion is communicated to it by means of the crank N. Now the
45 revolution of the shaft L, gives motion to the cam M, and this raises the corrugated plate K, until it rests upon the apex of the cam M, which is shaped so as to fit in any
50 of the corrugations in the plate K; then as the cam moves forward, it causes a partial revolution in the cam plate K, before it leaves it—and immediately, the shaft F, losing its support, falls, in connection with

the cutter head G; and thus, as the cam M 55 revolves, it not only raises the chopping knives and pulverizers, but it also gives them a partial revolution, so that when they fall, they may not strike in the same place any two consecutive times, but may act upon dif- 60 ferent portions, until the whole mass is thoroughly chopped or pulverized.

It often happens that the same substance has first to be reduced to small pieces by cutting or chopping, and then reduced to a 65 powder by pounding,—for this purpose, my machine is peculiarly adapted, as when the substance has been sufficiently acted upon by the knives, it is only necessary to unscrew the thumb nut O, when the cutter head may 70 be inverted and the hammers I, I, I, I, be made to operate until it is thoroughly pulverized.

After the machine has been in use a long time, the surface of the chopping block C, 75 will have been worn down by the action of the knives and hammers and thus the cam plate K, will fall nearer to the hub of the cam, until it may eventually strike it—but to obviate this, I turn the end of the shaft F, 80 to a shoulder and place upon it, and above the cam plate K, the two washers P, P, which may be changed to the lower side of the corrugated cam plate K, so as to elevate its position on the shaft F, as occasion may 85 require.

I do not claim the use of chopping knives on vertical sliding heads, playing upon a block or receptacle; nor do I claim the cam, acting upon a circular corrugated disk, as a 90 means of combining the lifting motion with a gradual rotary one, this having been done before in machines for drilling rocks; but

What I do claim is—

The forming a machine for chopping meat 95 and other similar substances by attaching the chopping knives H, H, H, H, to a central rotary spindle F, when this is operated by the combination of the cam M and corrugated disk K, as herein described. 100

In witness whereof I have hereto set my signature this 2d day of December A. D. 1854.

WM. H. ALLEN.

In presence of—

O. E. CUSHING,
MILTON BRADLEY.