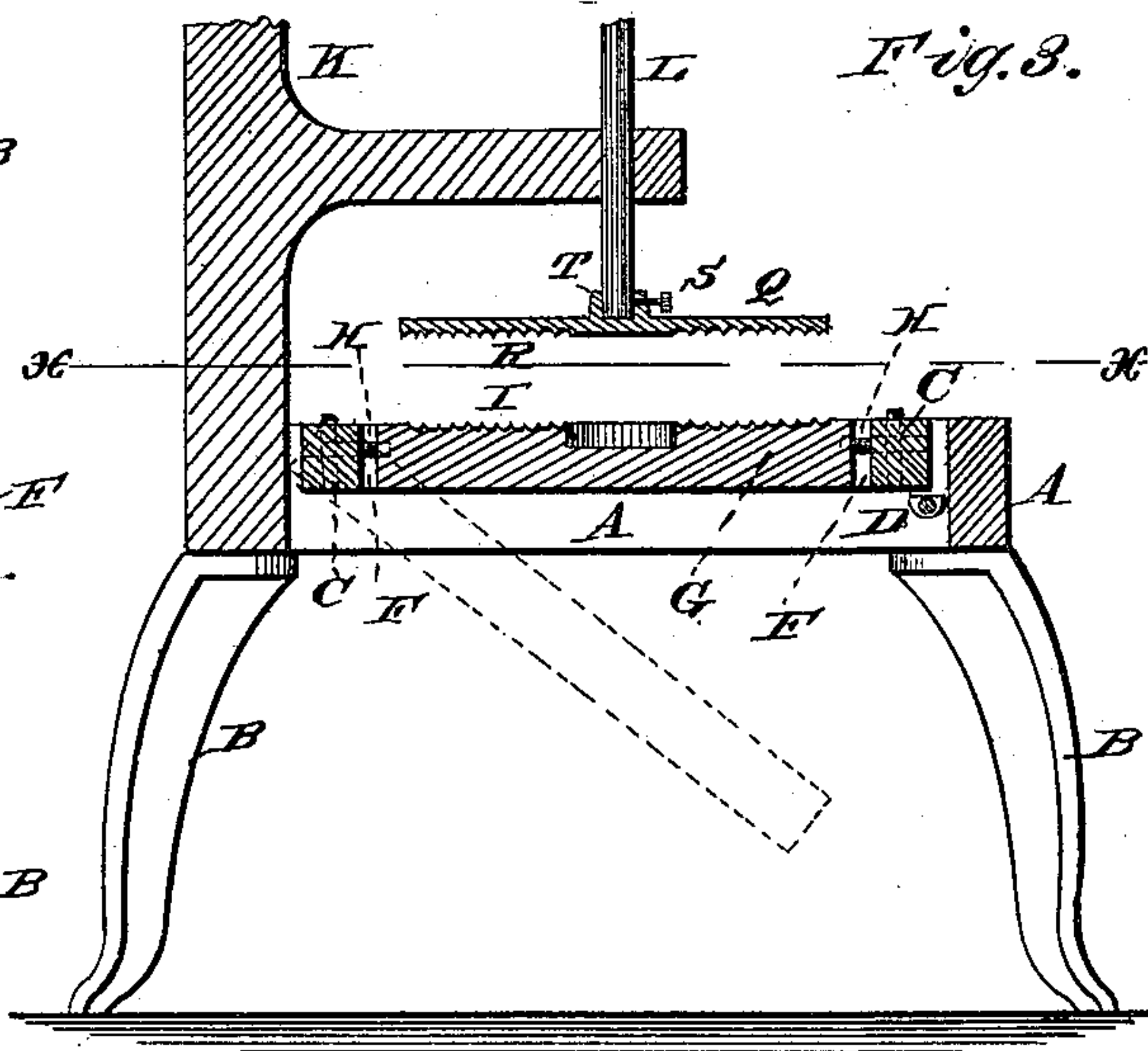
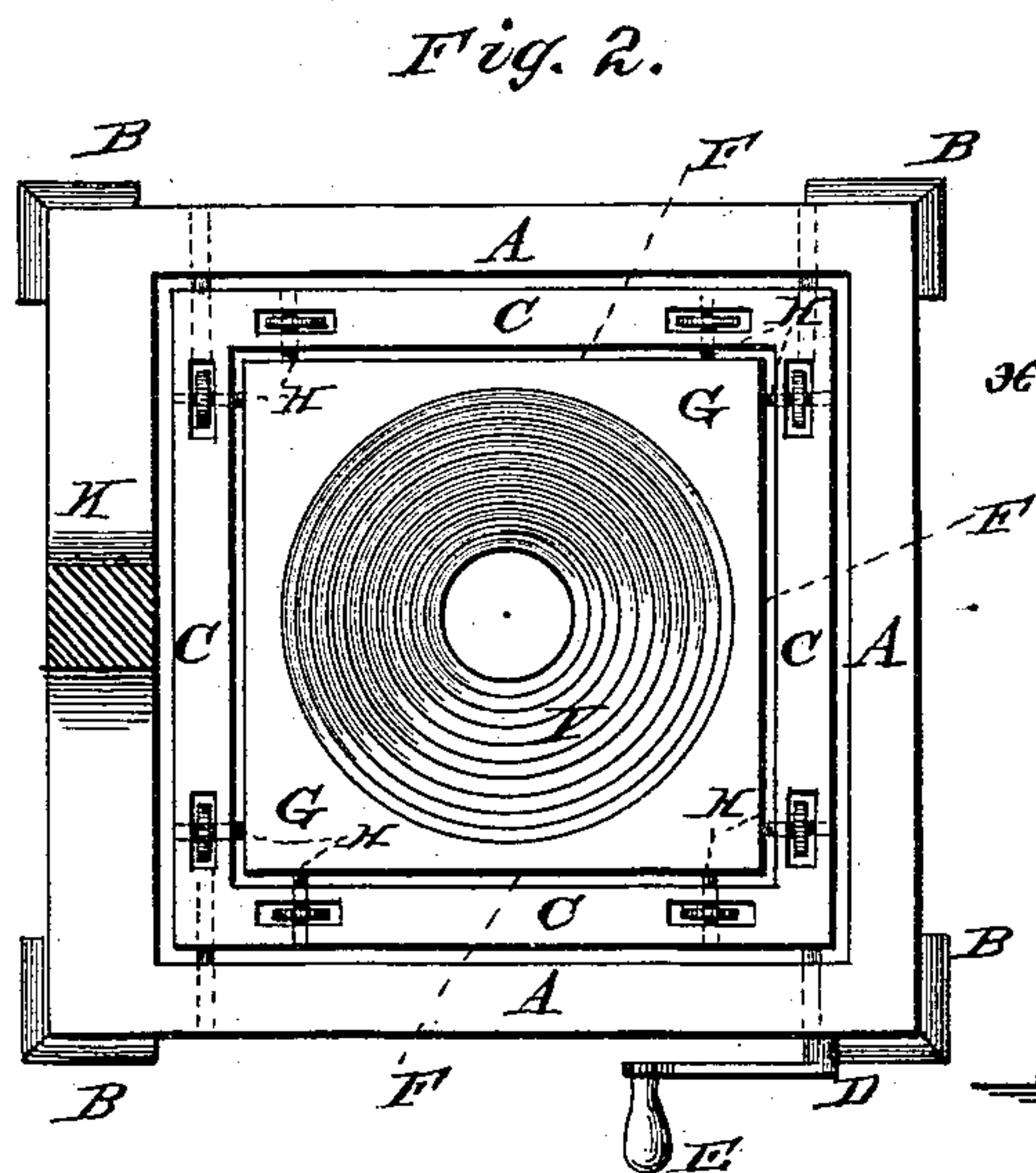
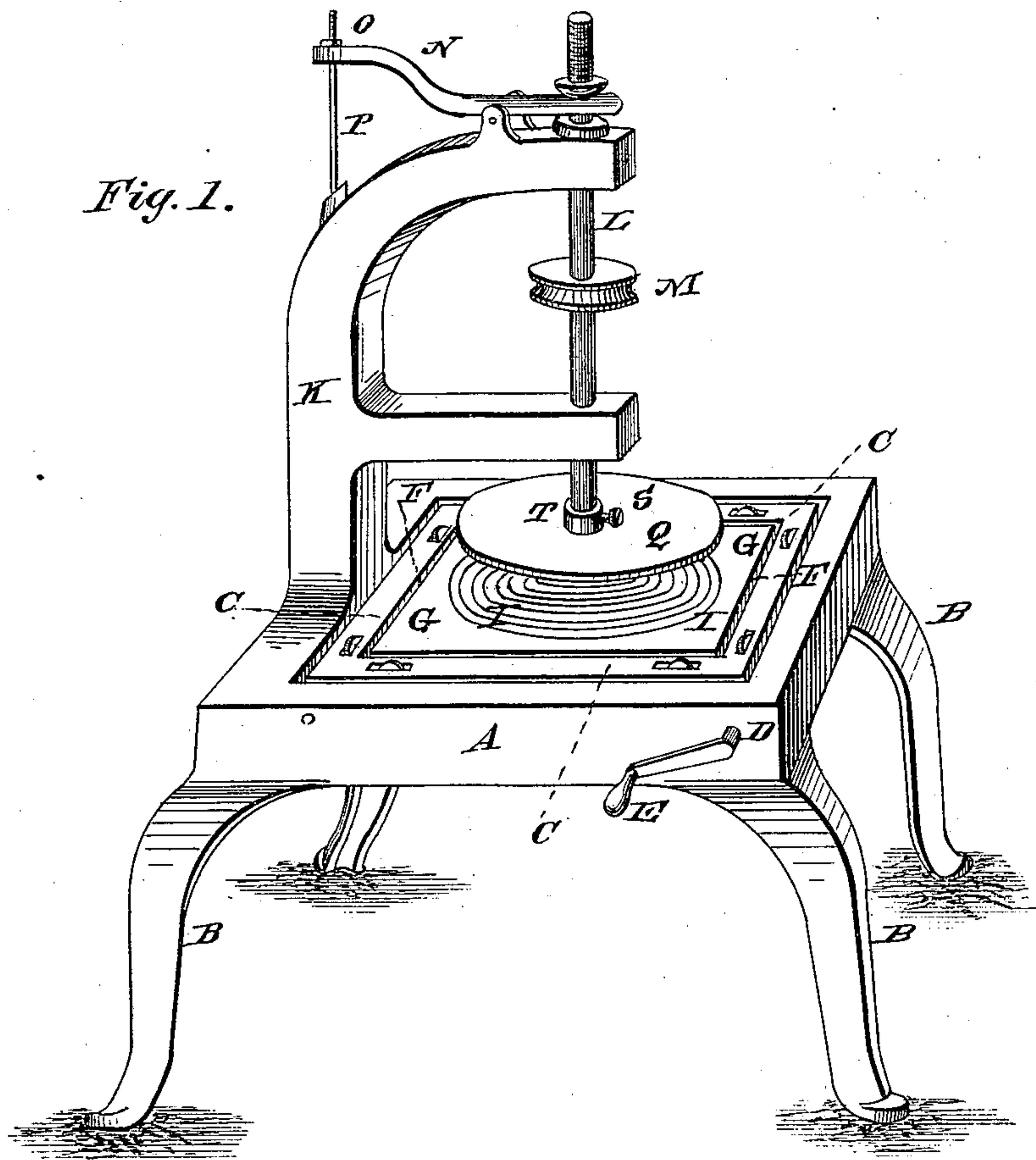


(No Model.)

W. N. CLARK.  
MACHINE FOR MANUFACTURING PILLS.

No. 250,710.

Patented Dec. 13, 1881.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM N. CLARK, OF NEW YORK, N. Y.

## MACHINE FOR MANUFACTURING PILLS.

SPECIFICATION forming part of Letters Patent No. 250,710, dated December 13, 1881.

Application filed November 5, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM N. CLARK, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Machines for Manufacturing Pills; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view. Fig. 2 is a horizontal sectional view through the plane indicated by the broken line *xx* in Fig. 3, and Fig. 3 is central sectional view.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to machines for cutting and forming pills; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed in the claims.

In the drawings hereto annexed, A represents the frame of the machine, which may be rectangular in shape, and supported upon legs B, as shown.

C is the bed-plate, which is hinged at one end in the frame A, so that its free end is capable of being dropped or lowered to the position shown in dotted lines in Fig. 3. When raised to a horizontal position the free end of said bed-plate is supported upon a turning bar, D, operated by a crank, E, or by means of a catch-bolt, latch, or any other suitable mechanism.

The bed-plate C is provided with a shallow recess, F, in which a plate, G, may be adjusted and secured by means of set-screws H. Plate G, which may be made of metal or any other suitable material, is provided with a series of circular concentric grooves, I. The recess F in the bed-plate may be omitted, and other means than set-screws may be used for securing the grooved plate G, or the grooves I may even be formed in the bed-plate C without changing the spirit of my invention.

The frame A is provided with a bracket or upright, K, having bearings for a vertical shaft, L, having a pulley, M, for the communication of a rotary motion to said shaft. The upper

end of the latter is mounted in a forked lever, N, fulcrumed on top of bracket K. The outer end of said lever is adjustable by means of a nut, O, working upon a threaded rod, P, so that the shaft, which is capable of sliding in its bearings, may be set vertically in any desired position.

At its lower end the shaft L carries a disk, Q, having circular concentric grooves R, matching the grooves I in plate G, with which they are likewise concentric. The disk Q is detachable from shaft L, upon which it may be secured by a set-screw, S, working in a collar, T, upon the upper side of disk Q.

The operation of my machine is as follows: The paste or material of which the pills are to be formed is formed into a cake of suitable size and shape, and placed between the grooved plate G and disk Q, the latter of which is then rotated, thus cutting and forming the paste into long cylindrical strips or pipes. The shaft L, with disk Q, is then raised to enable the said strips to be raised from the grooves I and placed transversely or radially across the plate G. Disk Q is then again lowered and rotated, thus cutting the strips into pellets of suitable size, and forming the latter into a perfectly globular shape. The bed-plate C is then tilted or dropped, thus discharging the finished pills into a tray or suitable receptacle placed underneath.

Pills of different sizes may be made by removing the plate G and disk Q and substituting others in which the grooves or corrugations are of different dimensions.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for making pills, a rotating cutting-disk having concentric circular grooves, substantially as set forth.

2. In a machine for making pills, a stationary plate or disk having concentric circular grooves, substantially as set forth.

3. In a machine for making pills, the combination of two plates or disks having concentric circular grooves facing and matching each other, substantially as set forth.

4. In a machine for making pills, the combination of a stationary and a rotary plate or disk having circular concentric grooves facing

and matching each other, substantially as set forth.

5 In a machine for making pills, the combination, with a horizontal cutting and shaping disk or plate, of a co-operating disk or plate mounted in a hinged bed-plate below the upper disk or plate to adapt the bottom disk or plate to be tilted, with its bed-plate, in a downward direction from the upper disk or plate, substantially as and for the purpose shown and set forth.

5 6. In a machine for making pills, the hinged bed-plate having a detachable disk or plate provided with concentric circular grooves, substantially as set forth.

7. As an improvement in machines for making pills, the combination, with a suitable frame, of a hinged bed-plate carrying a detachable plate having concentric circular grooves, a vertical shaft carrying a detachable disk having concentric circular grooves, and mechanism for operating said shaft, substantially as set forth. 20

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM N. CLARK.

Witnesses:

AUGUST PETERSON,  
JNO. W. MADIGAN.