

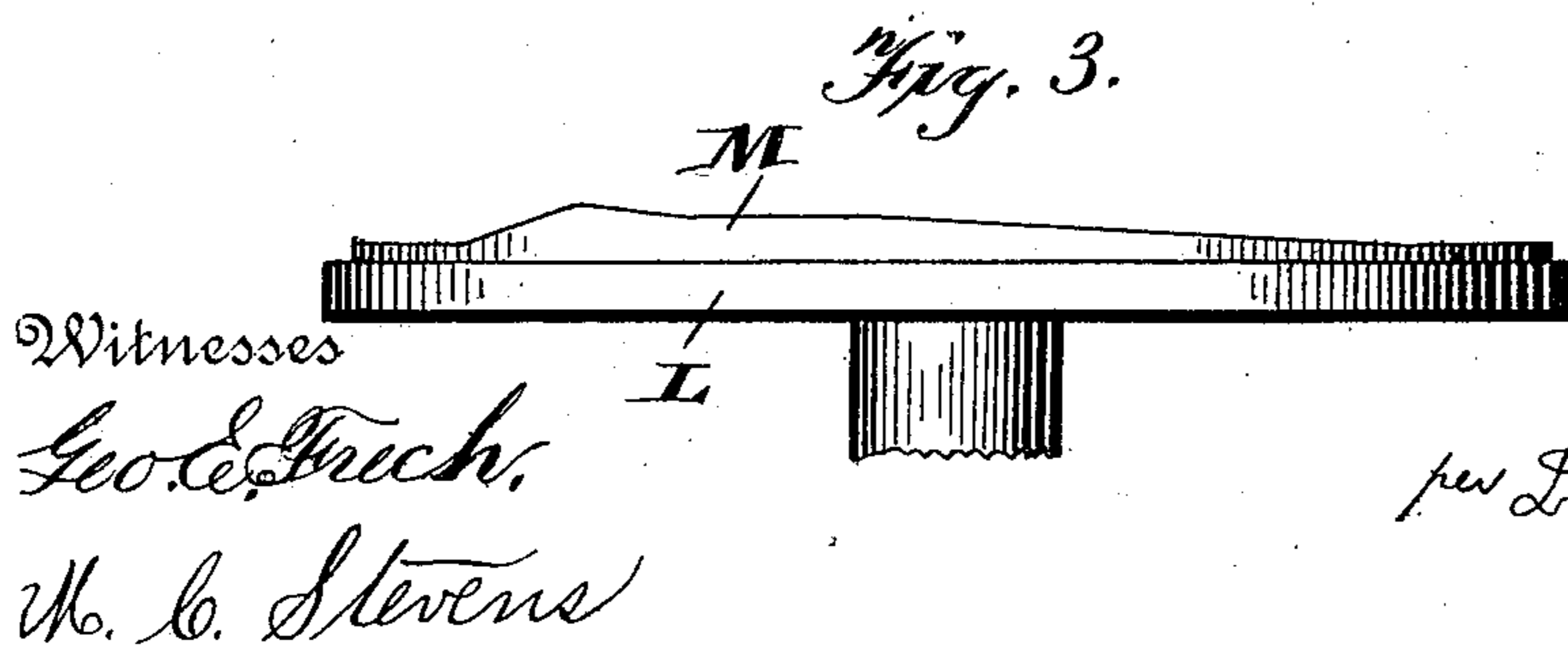
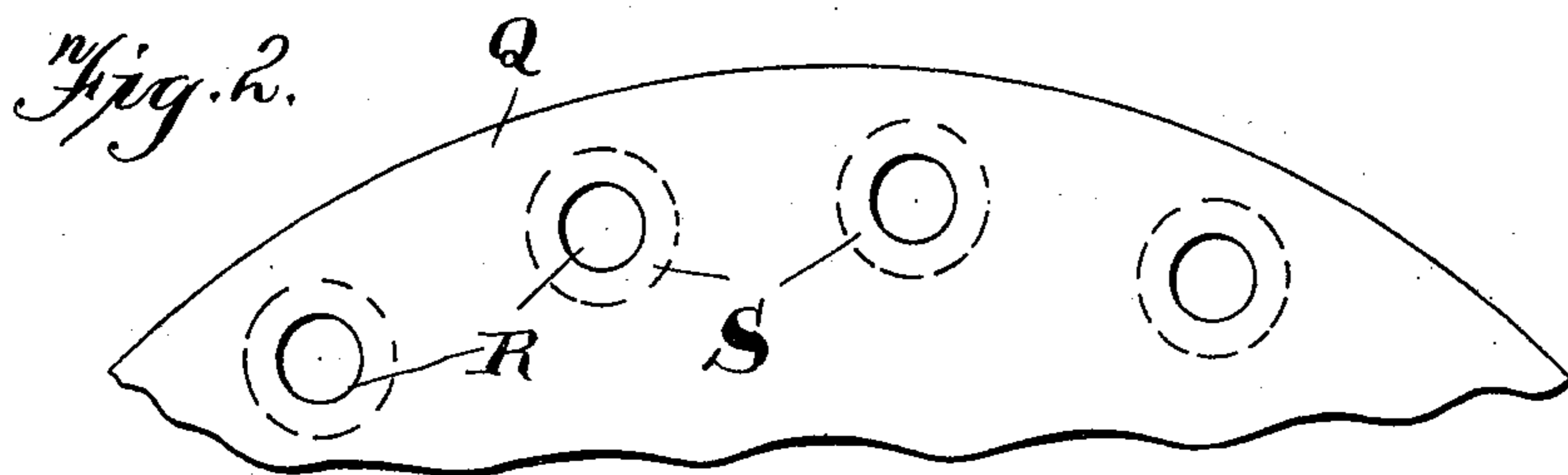
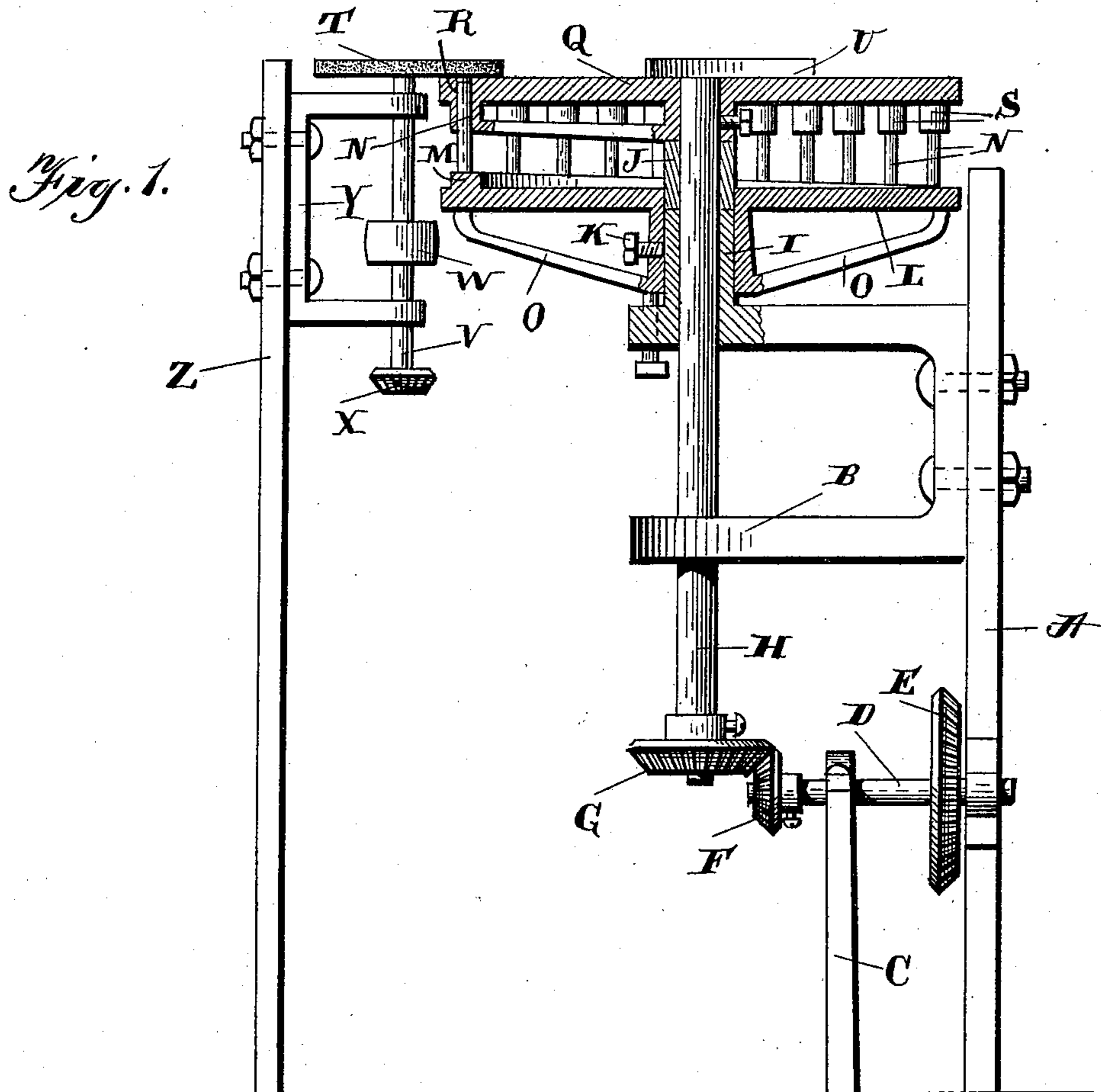
No. 620,184.

Patented Feb. 28, 1899.

F. G. RODLER.  
BUTTON MAKING MACHINE.

(Application filed Mar. 23, 1897.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

FERDINAND G. RODLER, OF DAVENPORT, IOWA.

## BUTTON-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 620,184, dated February 28, 1899.

Application filed March 23, 1897. Serial No. 628,822. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND G. RODLER, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Button-Making Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in button-making machines; and it consists in a rotating disk provided with a series of perforations near its outer edge in which the upper ends of vertically-moving pins are placed and in which perforations the buttons are placed, combined with a stationary disk having a cam-shaped flange formed thereon and upon which flange the pins travel for the purpose of giving them a vertical movement, a revolving disk or grinder for cutting away one side of the buttons, and a device for sweeping the buttons from the revolving disk, as will be more fully described hereinafter.

The object of my invention is to provide a mechanism to be used in the manufacture of buttons by means of which button blanks or disks may be reduced to an equal thickness while being carried horizontally around.

In the accompanying drawings, Figure 1 is a side elevation of a machine which embodies my invention, partly in section. Fig. 2 is a plan view of a portion of the revolving disk. Fig. 3 shows the operating-cam.

A represents an upright or wall which forms a support for the mechanism and to which the bracket B is secured in any suitable manner. Journaled in this standard A and the shorter bearing or standard C is the horizontal shaft D, which has a large beveled gear E upon one end to receive the driving power and a beveled pinion F upon the other. This pinion meshes with the beveled gear G, secured to the lower end of the shaft H, which is journaled in the bracket B, as shown. Projecting above the top of the upper arm of the bracket is the collar or circular flange I,

and upon the top of this circular flange is placed a ring or bearing J. Clamped to the flange I by suitable set-screws K is the stationary disk or table L, which has the cam-shaped flange M, upon which the vertically-moving rods or pins N travel. This flange is made higher at certain parts than others and the shape of the highest part is about as shown. To the under side of the disk or table L are secured suitable supporting-ribs O, which extend from the collar P at the center to the outer edge of the table.

Clamped rigidly to the upper end of the shaft H, so as to be made to revolve therewith, is the table or disk Q of any suitable width and which has a series of perforations R made through its outer edge and the vertical flange S, formed on its under side. This flange S may have any desired width; but it should be made wide enough to hold the pins N in a vertical position as they are carried around by the table or disk Q upon the flange or track M of the stationary table L. As these pins are carried around by the upper table or disk Q they are given a vertical movement through flange S by the cam-shaped flange M for the purpose of raising the button-blanks to the grinding-wheel when the pins reach the higher part of the flange or track and then eject them from the openings R when the highest part is reached. While the pins are traveling upon the lower part of the flange their upper ends sink sufficiently far to allow the button-blanks to be freely inserted into the holes R, and as the pins are raised by the flange the blanks are presented to the under side of the rapidly-revolving emery-wheel T, which is placed just above the table at any convenient height, as shown. This wheel may operate upon one or more blanks at a time, as preferred, and while the buttons are being operated upon the pins are traveling upon the next to the highest part of the flange, and after the blanks pass from under the wheel T the pins are raised by the highest part of the flange through the openings in the upper wheel Q, and thus push the reduced blanks from the holes R in which they were held. Projecting diagonally across one side of the table Q is a rod or device U, which sweeps the blanks from the table as they are

raised by the pins from the perforations R in which they were held. As the pins are of exactly the same length, each button-blank is raised exactly the same distance, and hence  
5 the wheel T cuts away their upper surfaces, so that every button is made of exactly the same thickness. Of course the thickness of the buttons may be varied at will by having different lengths of pins or by having a num-  
10 ber of flanges or tracks M, which are made removable from the table L, as may be preferred. The emery-wheel T is secured to the upper end of the shaft V, which is provided with a driving-pulley W and a beveled pin-  
15 ion X, and this shaft is journaled in a bracket Y, which is secured to an upright Z, as shown. The blanks are fed to the perforations in the table in any well-known manner, and the wheel T is made to rapidly revolve just above  
20 the edge of the table Q, as shown. Thickness of buttons may also be varied by loosening the set-screws in the downwardly-extending flange or collar of the lower disk or table and then turning up or down the set-screw  
25 which extends through the lower arm of bracelet 3. This forces the lower table upward or allows it to drop, and thus you will

see varies the amount of button which is subjected to the emery.

Having thus described my invention, I 32  
claim—

In a button-making machine, an operating-shaft, a revolving table provided with perforations to receive the button-blanks through its outer edge, and which is secured to the 35 shaft; a series of vertically-moving pins which operate in the perforations to raise the blanks, and a stationary cam which forms a support for the lower ends of the pins, combined with a stationary sleeve surrounding 40 the shaft and to which the cam is secured, a bracket or frame in which the shaft revolves, a set-screw which passes through the frame and bears against the lower edge of the cam in relation to the table, and a loose 45 collar J placed upon the shaft, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

FERDINAND G. RODLER.

Witnesses:

M. A. BLAIR,  
I. C. ANDERSON.