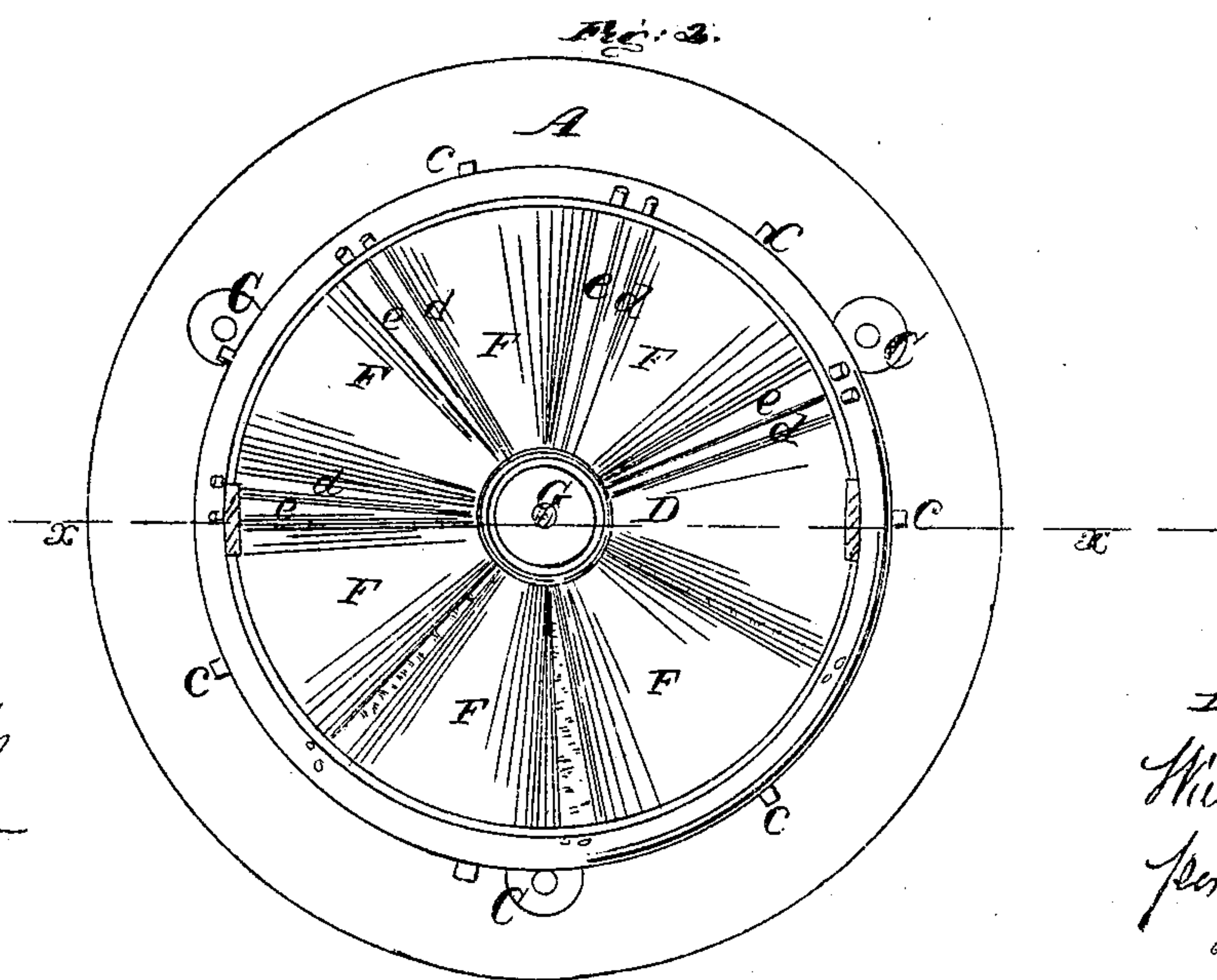
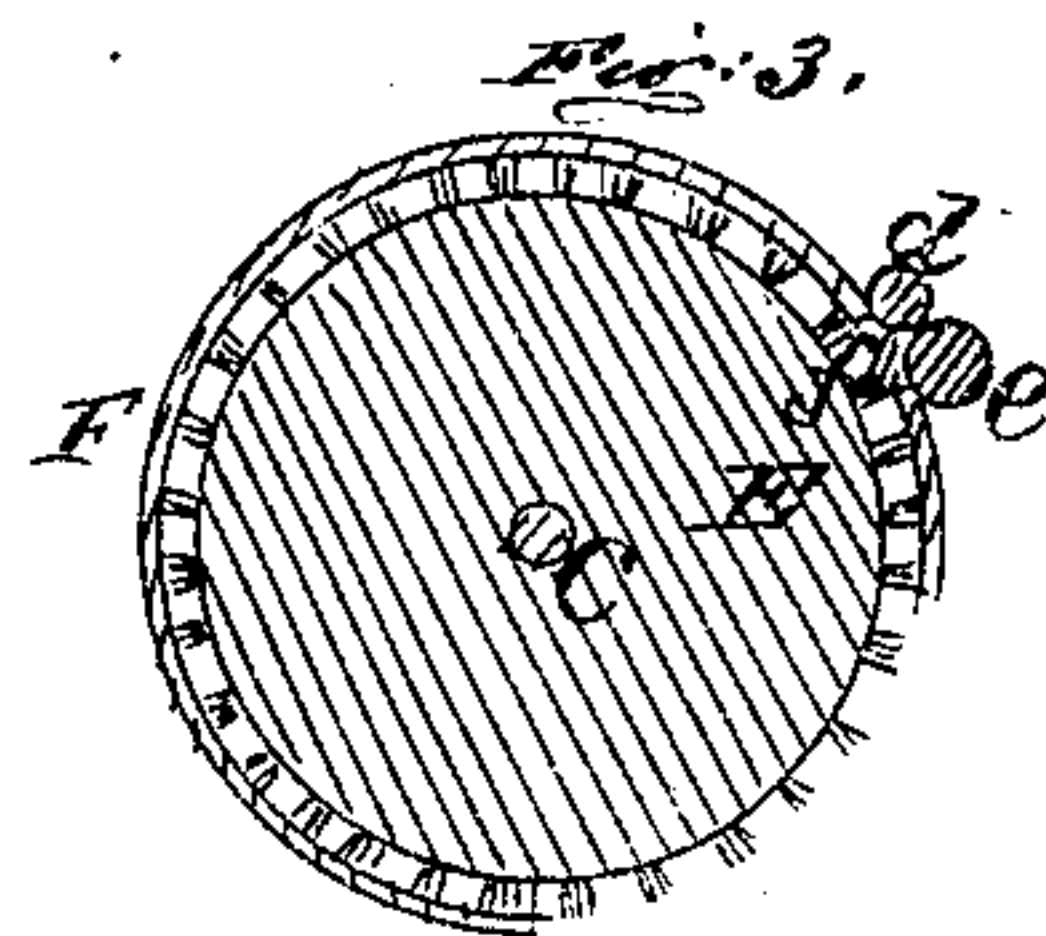
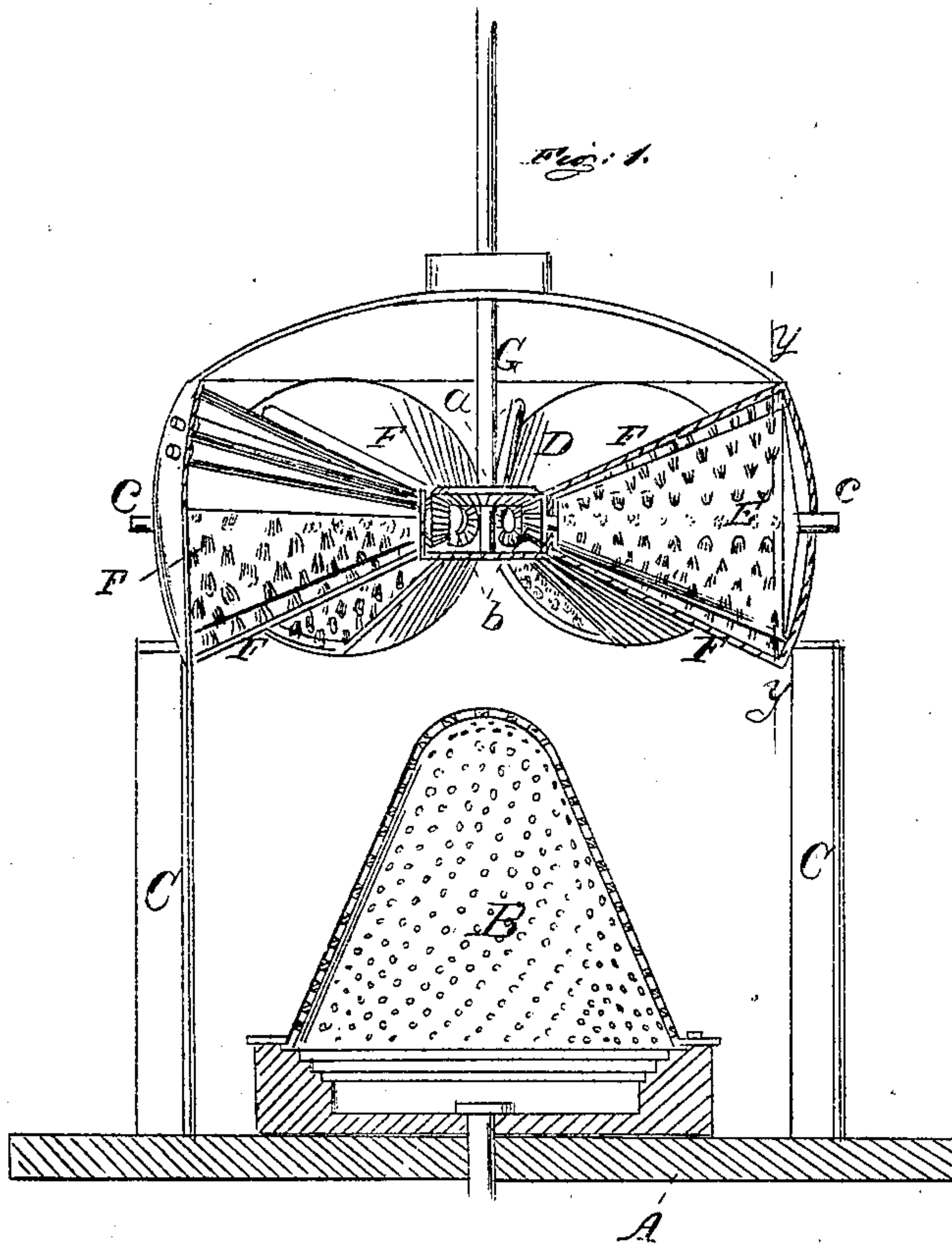


W. Fuzzard, Forming Bats

No. 29478.

Patented Aug. 7. 1860



Witness
J. W. Coombs
C. Hughes

Inventor
William Fuzzard
per M. M. M. 2
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM FUZZARD, OF CHARLESTOWN, MASSACHUSETTS.

MACHINE FOR FORMING HAT-BODIES.

Specification of Letters Patent No. 29,478, dated August 7, 1860.

To all whom it may concern:

Be it known that I, WILLIAM FUZZARD, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Machine for Forming Hat-Bodies; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of my invention taken in the line *x, x*, Fig. 2. Fig. 2 a plan or top view of the same. Fig. 3 a detached transverse section of a portion of the same taken in the line *y, y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has for its object the presentation of the fur to the former or cone in such a way that the fur will be disposed on the cone with a proper gradually increasing thickness from tip to base. In order to effect this result two things are to be considered, first the required gradually increasing thickness of the hat body from tip to base and, second, the gradually increasing supply of fur the cone requires from its apex to its base.

In order to obtain a perfect hat body, it is essential that the fur be distributed on the cone in a very exact manner, and all machines hitherto devised that have passed under my observation have only approximated to the proper distribution of the fur on the cone.

The within-described invention consists in projecting the fur down upon the former or cone between radial and conical feed rollers, conical pickers being used in connection therewith in order to effect the desired end as hereinafter described.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a base or platform on which a perforated cone or former B, is placed. This cone or former may be of usual construction and it is placed over an exhaust fan.

C, represents vertical posts on the base A, which posts support a circular dish-shaped feed table or box D, placed above and concentric with the cone or former B.

Underneath the feed table D, there is placed a series of conical pickers E. These pickers are placed in a radial position underneath the feed table and about three quarters of their peripheries are inclosed by cases F, which correspond in form to the pickers, see Fig. 3. The pickers may be driven by a central shaft G, having a bevel wheel *a*, on its lower end into which wheel pinions *b*, at the inner ends of the picker shafts *c*, gear. The pickers E, may be of ordinary construction such as are commonly used in "devils" and similar or analogous machines which have fur feeding devices. The drawings Figs. 1, and 3, represent the pickers as formed of frustums of cones with brushes attached to their peripheries. Metal teeth might answer in lieu of brushes. The upper surface of the feed table or box D, is formed of the upper surfaces of the picker cases F, which are connected together. At the junctions of the cases F, there are placed conical nipper or feed rollers *d, e*, two rollers being at each junction and each case F, is slotted longitudinally as shown at *f*, said slots *f*, being of taper form corresponding to the conical form of the rollers *d, e*. The rollers *d, e*, are placed one over the other, each pair being in an oblique plane, the bites of the rollers being directly opposite the slots *f*, as shown clearly in Fig. 3.

The operation of the machine is as follows. The fur to be distributed on the former or cone B, is placed on the feed table D, and the shaft G, and rollers *d, e*, are rotated by any convenient power. The fur is fed through the slots *f*, to the pickers E, by the rollers *d, e*, and the pickers E, by their rotation cast the fur downward in the suction of the fan and the fur is drawn on the cone B, which may be stationary or rotate. The fur in consequence of the conical form of the rollers *d, e*, and pickers E, is discharged in gradually increasing quantity from the inner to the outer ends of the pick-

ers and this form of discharge is adapted to the gradually increasing area of the cone from its apex to its base; and also to the required gradually increasing thickness of
5 the hat body from tip to brim.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The employment or use of rotating
10 conical rollers *d*, *e*, in connection with pickers *E*, arranged over and concentric with a

hat-former or cone *B*, to operate substantially as and for the purpose set forth.

2. The arrangement of the picker cases *F*, connected together and placed relatively
15 with the pickers *E*, and rollers *d*, *e*, so as to form a feed table as well as cases for the pickers as herein described.

WILLIAM FUZZARD.

Witnesses:

JAMES HATCH,

WILLIAM S. STEARNS.