

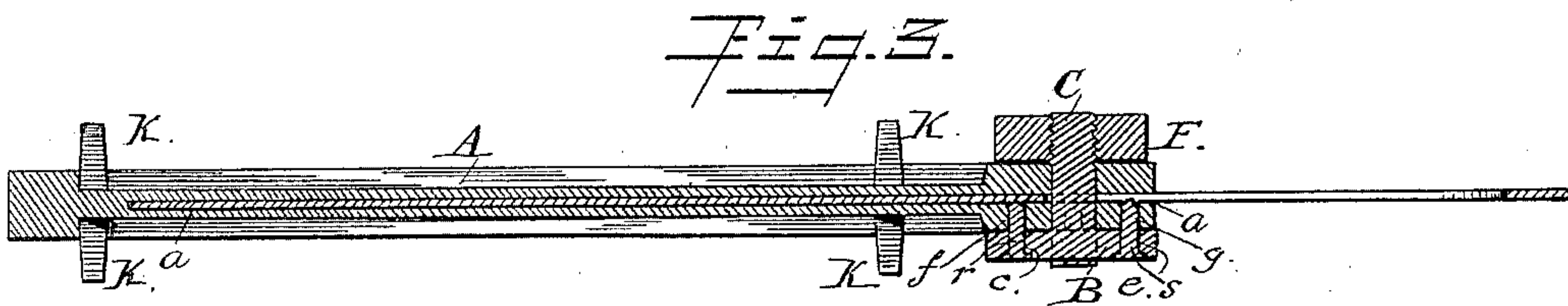
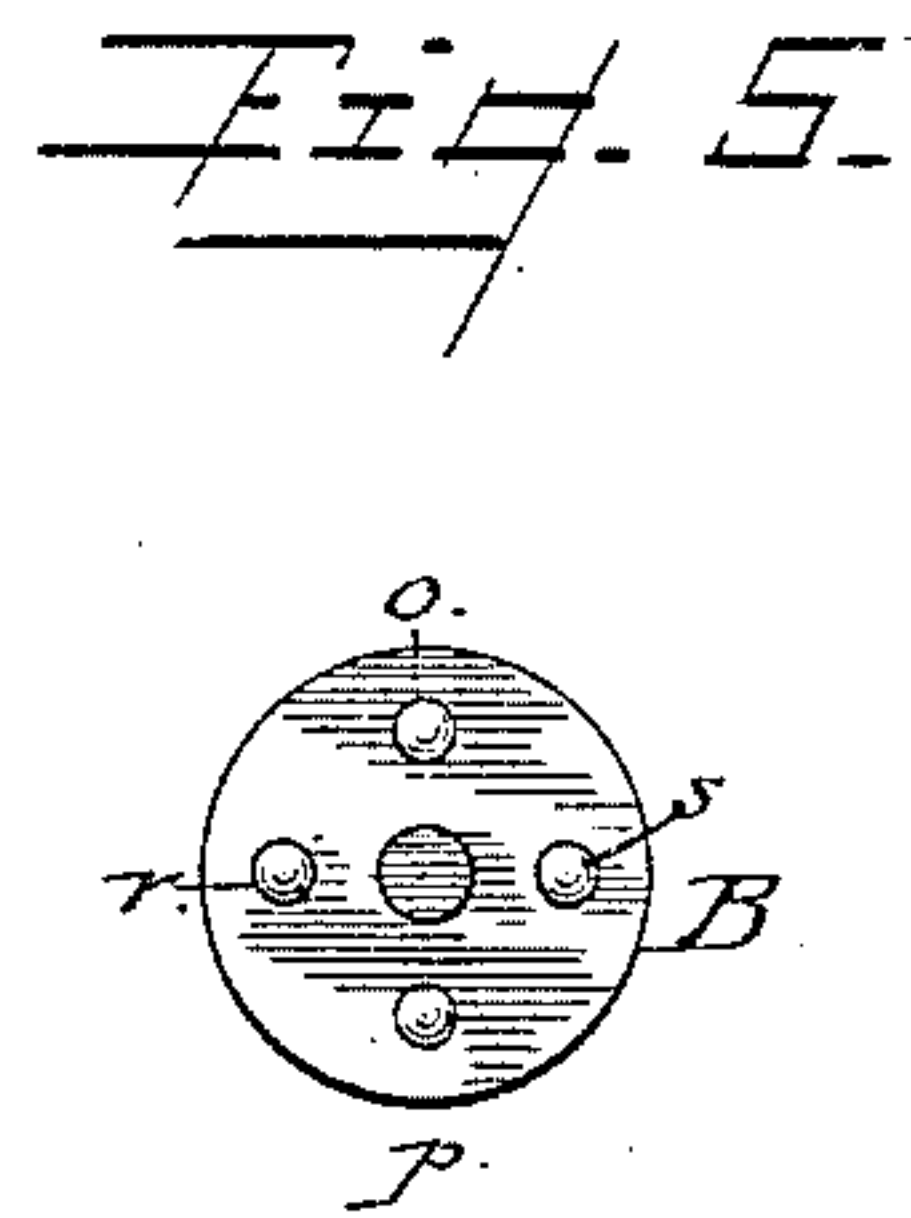
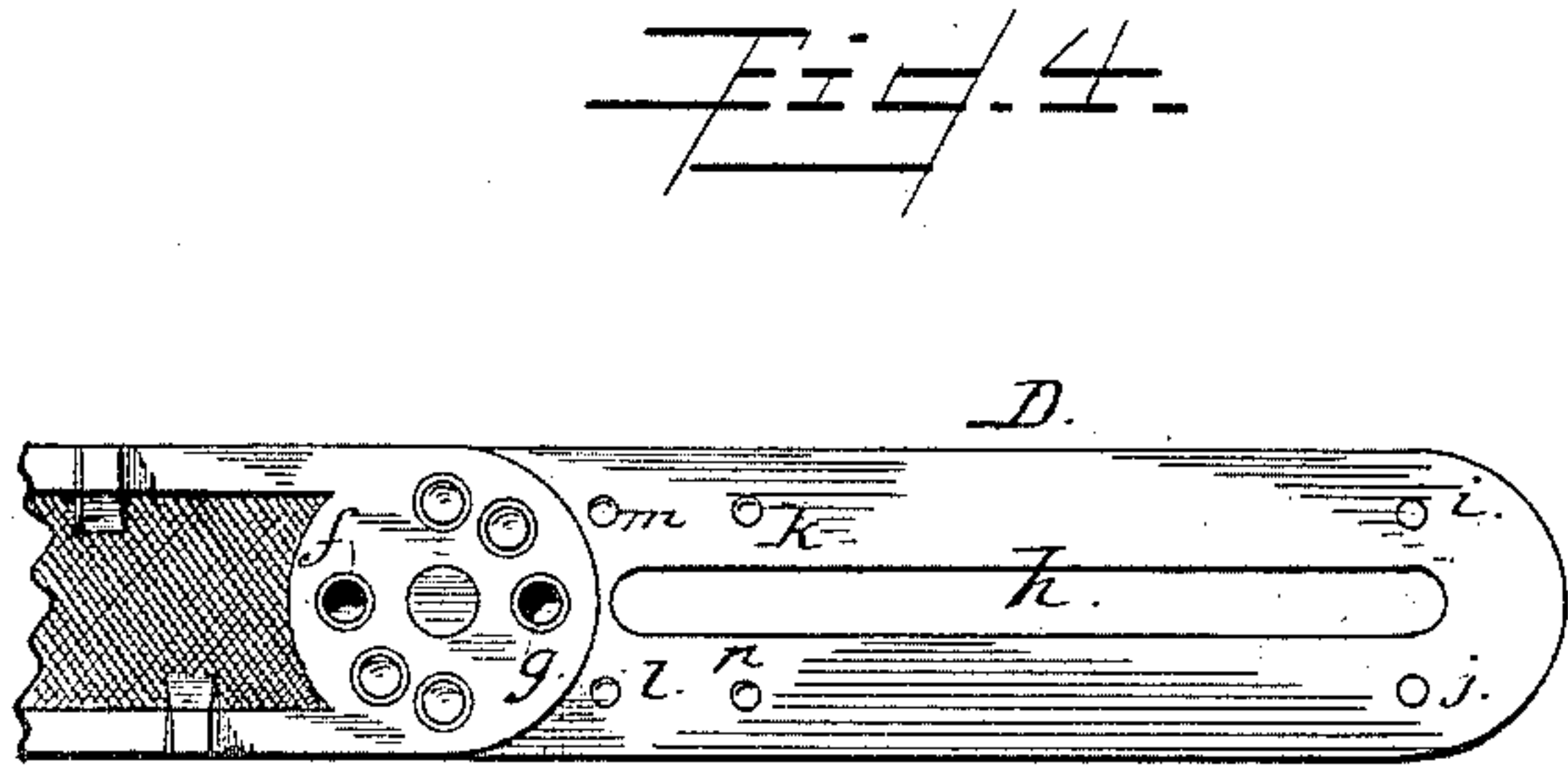
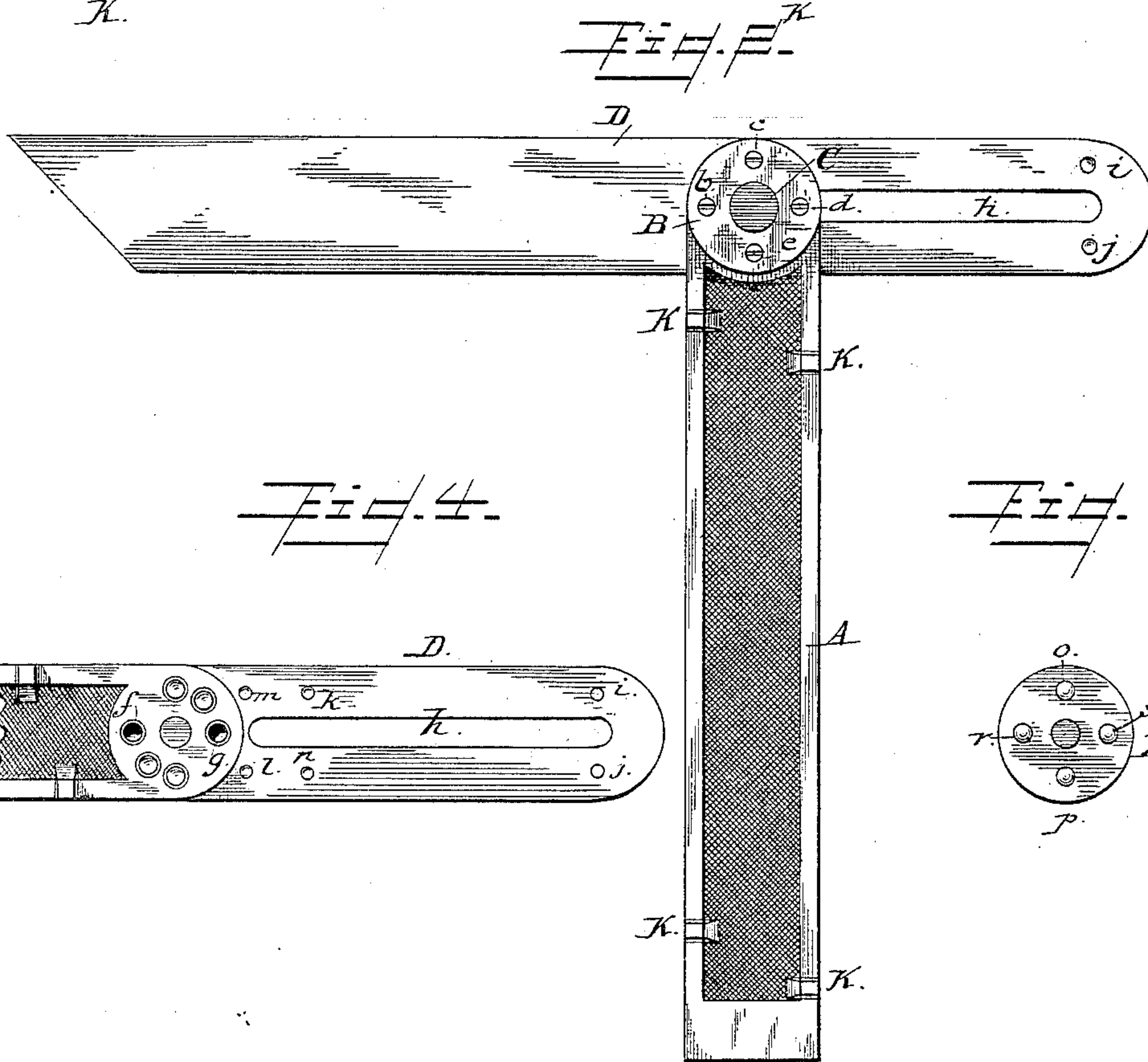
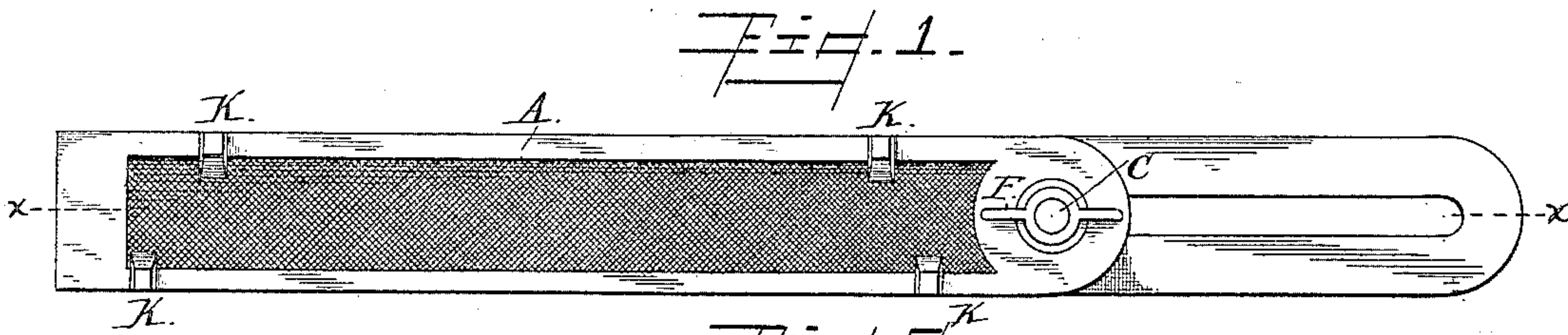
(No Model.)

C. F. MERRIFIELD.

TRY SQUARE AND BEVEL.

No. 399,424.

Patented Mar. 12, 1889.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES F. MERRIFIELD, OF BERNARDSTOWN, MASSACHUSETTS.

TRY-SQUARE AND BEVEL.

SPECIFICATION forming part of Letters Patent No. 399,424, dated March 12, 1889.

Application filed November 6, 1888. Serial No. 290,133. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. MERRIFIELD, a citizen of the United States, residing at Bernardstown, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Try-Square and Bevel Instruments; and I do hereby 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.

My invention relates to an improvement in try and T squares, and combines the functions, also, of a bevel and miter tool or instrument for joiners' use.

In my drawings illustrating my invention, Figure 1 is a plan or top view of my device. Fig. 2 is a bottom view showing its adjustment as a T-square. Fig. 3 is a section on line *x x* of Fig. 1. Figs. 4 and 5 are details, more fully illustrating my invention.

Similar reference-letters indicate like parts in all of the figures.

Referring to the drawings, A is the stock of the square, recessed, preferably, on its upper and lower faces, the bottoms of said recesses being roughened to prevent the square from slipping when the stock bears upon a sharply-rounded or angular surface. An open slot, *a*, is formed in the square's stock to inclose the blade of the square, and one end of said stock is rounded in semicircular form and pierced with an eye to receive a screw-bolt, C.

B is a disk milled on its edge and provided with a central opening for the bolt C, and four holes, *b c d e*, placed in radial lines from the center of said disk at right angles to each other. At the round end of the head A are opposite holes, *f g*, which correspond to the holes *c e* of the disk.

D is the blade of the square, provided with a long slot, *h*, and conical indentations *i j k l m n*.

The disk B has fixed in its central hole a bolt C, and in its small holes long screws, each of the latter being provided with conical ends.

In placing the several parts of the implement together the blade is slipped into the open slot of the stock until the slot *h* comes opposite the eye of the bolt. The bolt C is

now thrust into the said eye through the upper portion of the stock, through the slot of the blade, and thence through the lower portion of said stock, the screws *r s* entering at the same time opposite holes, *f g*, of the same. The nut F, provided for the purpose, may now be run on the end of the bolt to clamp the blade to position with reference to the stock to form an ordinary try-square or a T-square, or to make any required angle within a range of about three hundred degrees. When it is required to adjust the blade of the square to an angle of ninety degrees to form a try-square, the said blade is drawn out to the limit of the slot and revolved about its axis until the long screws *r s*, which enter the holes *f g* of the stock, are coincident with indentations *i j* of the blade, when the nut F is clamped hard to draw the conical ends of said long screws into the said indentations. When it is required to form a miter of forty-five degrees, the blade is shifted until the indentations *k l* or *m n* of the blade are coincident with the screws *r s*, when the nut is again driven to place to firmly clamp the stock to the blade.

When any other than a right angle or an angle of forty-five degrees is required, the blade, which may be provided with other indentations properly placed, is shifted in the manner described and clamped; or the ends of the long screws, together with the ends of the stock, may serve the purpose of a temporary hold. A hold less positive than when indentations in the blade are provided may be formed when the two parts of the head are clamped together until the points of the long screws of the disk impinge upon the surface of the blade; but such a hold would be much less reliable, as a matter of course, than where the indentations are used.

In order to provide a perfect bearing of the stock upon a piece of material of rounding or angular surface, I have provided lugs K, formed upon either or both outer surfaces of said stock, which, when the square is in practical service, will find bearing places under almost any conditions.

To form a T-square of the implement, it is only necessary to draw the blade from its stock, fix it at an angle of ninety degrees, and adjust it before clamping, so that a portion

will be on either side of the stock. By drawing the blade in a straight line from its stock and clamping it a very convenient straight-edge will be formed.

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

1. The combination, with the stock of the square, having an open slot for the blade,
10 radially-opposite holes, and an axis-hole, the disk, the axis-bolt, and screws, as described, of the blade provided with a long slot and conical indentations and the clamping-nut for the bolt, as and for the purpose specified.

2. In a try-square and bevel, the slotted 15 stock provided with bolt-openings, in combination with a disk provided with fixed screws and a bolt and the indented blade provided with a slot, as and for the purpose set forth.

In testimony whereof I affix my signature in 20 presence of two witnesses.

CHARLES F. MERRIFIELD.

Witnesses:

JAMES S. GRINNELL,
WM. H. ALLEN. —