

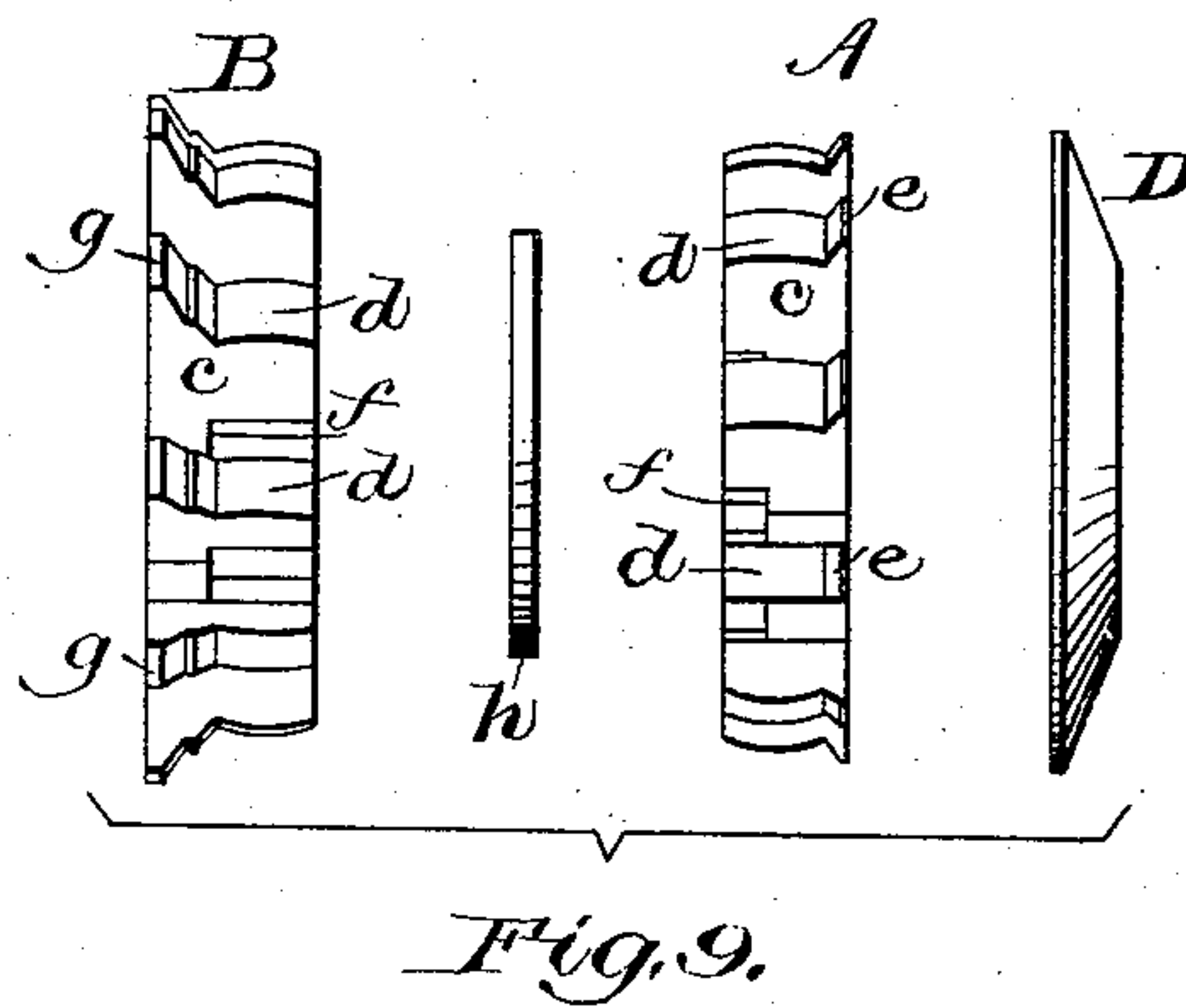
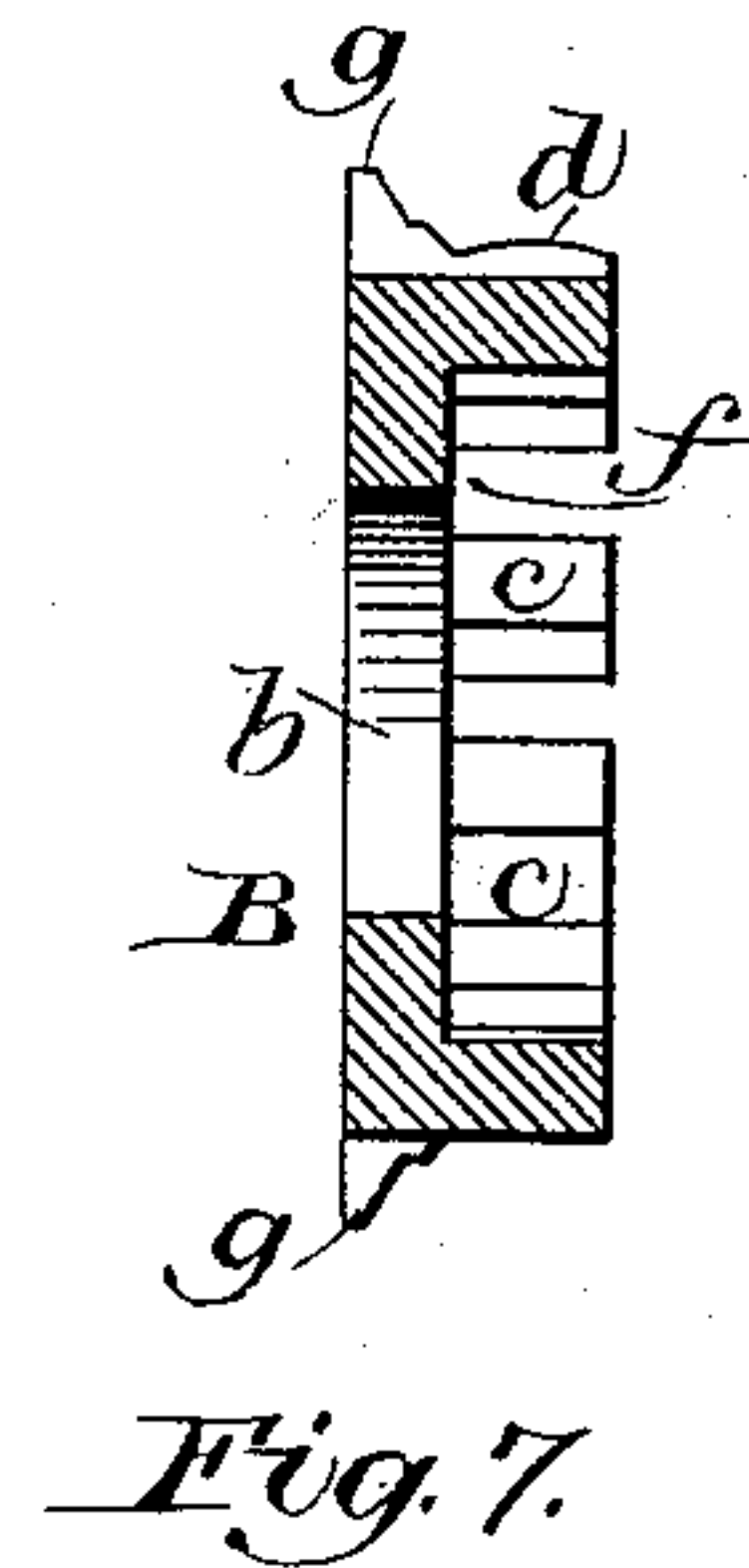
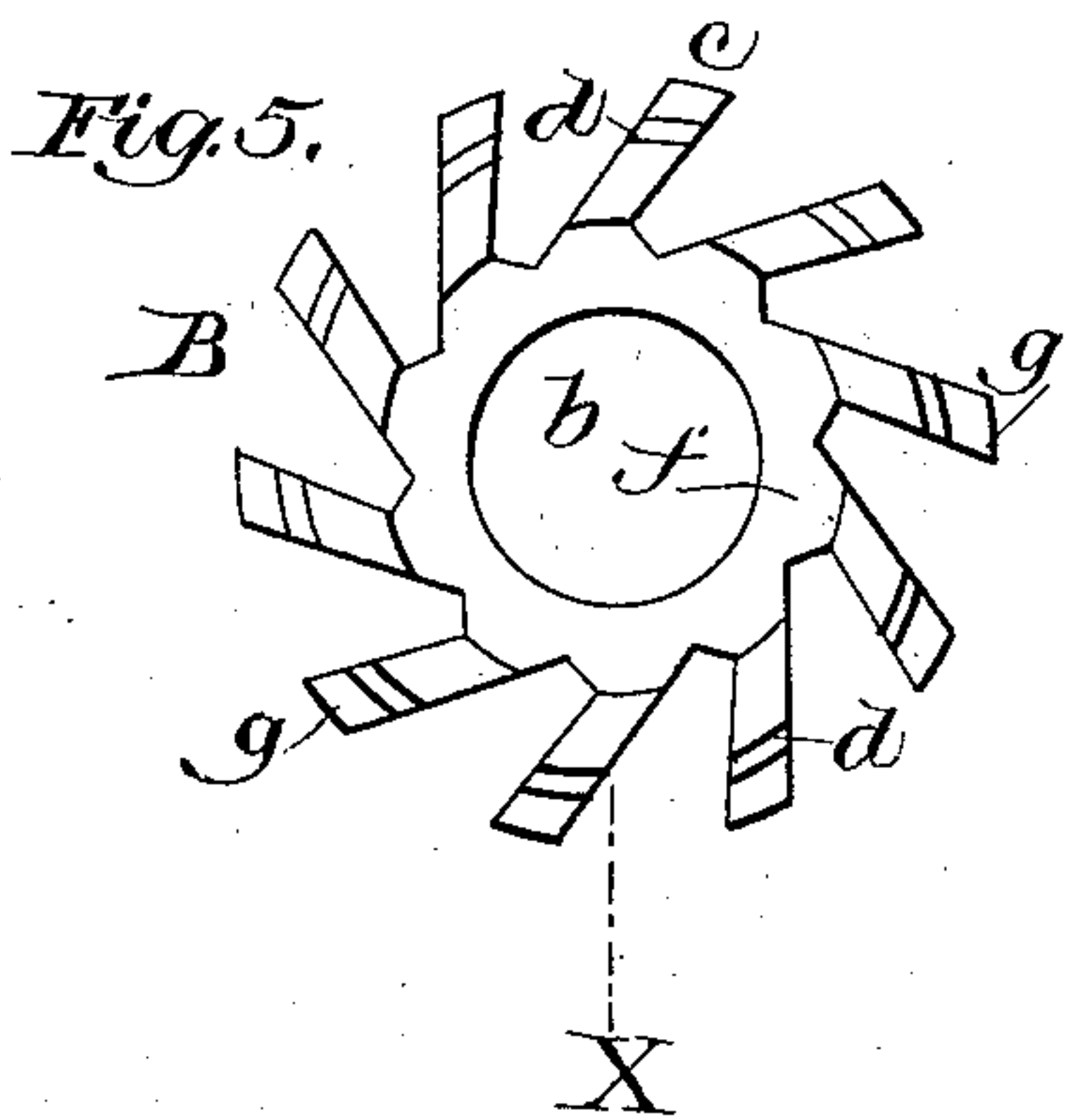
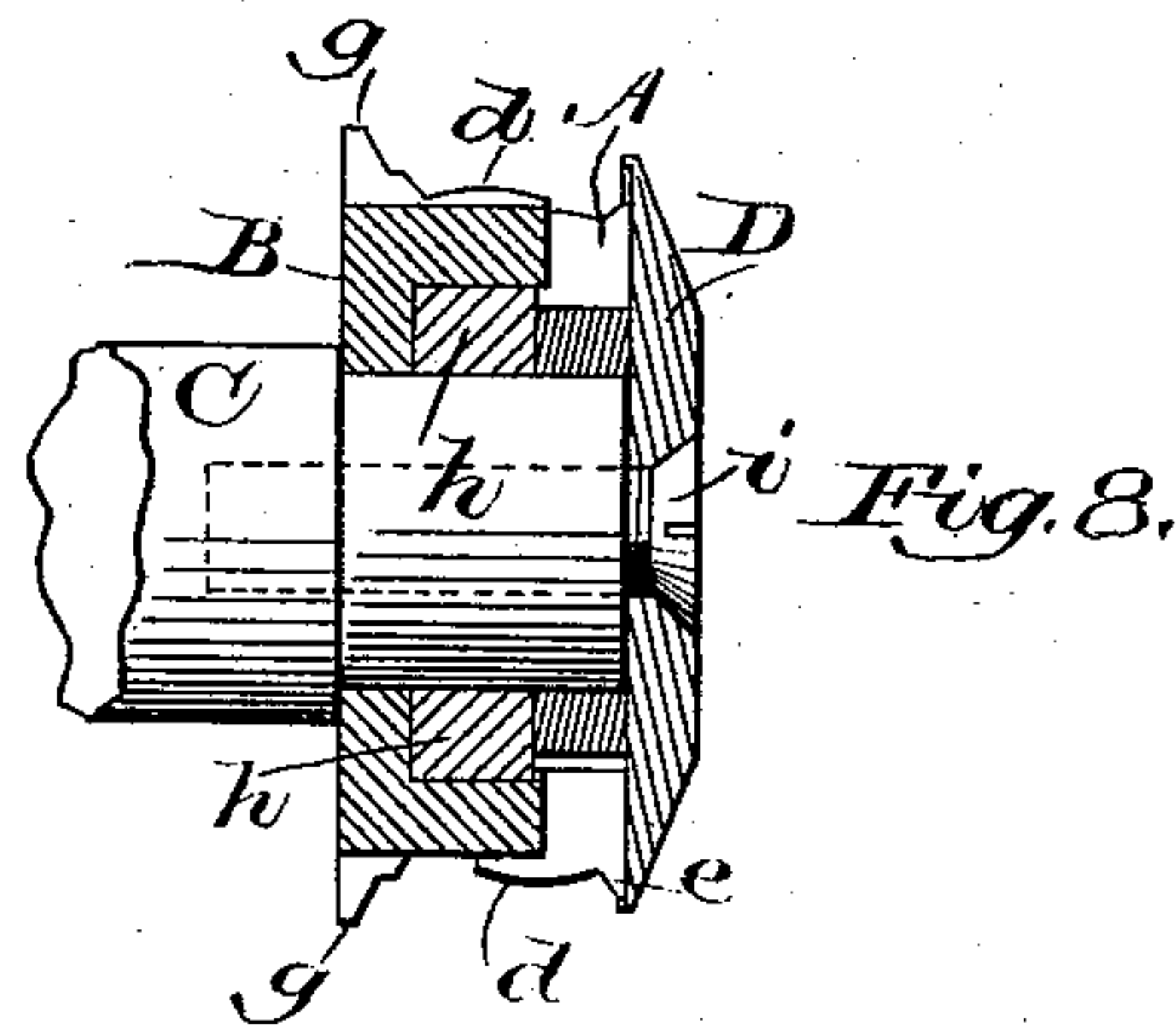
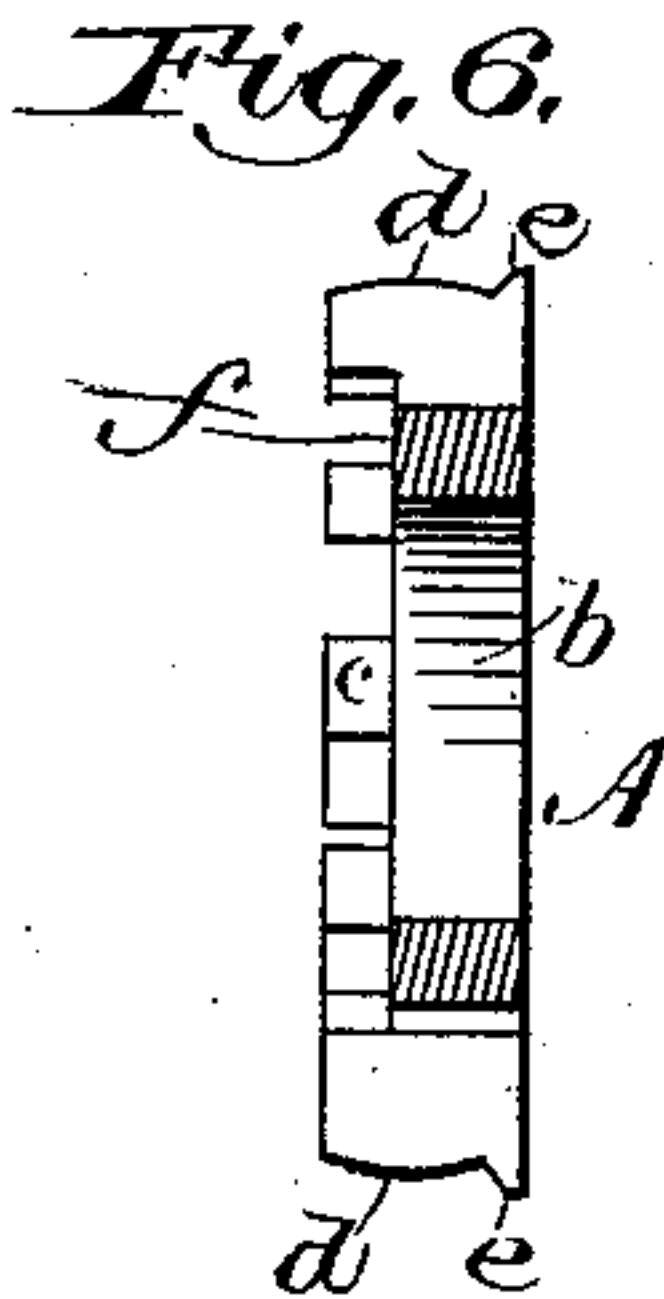
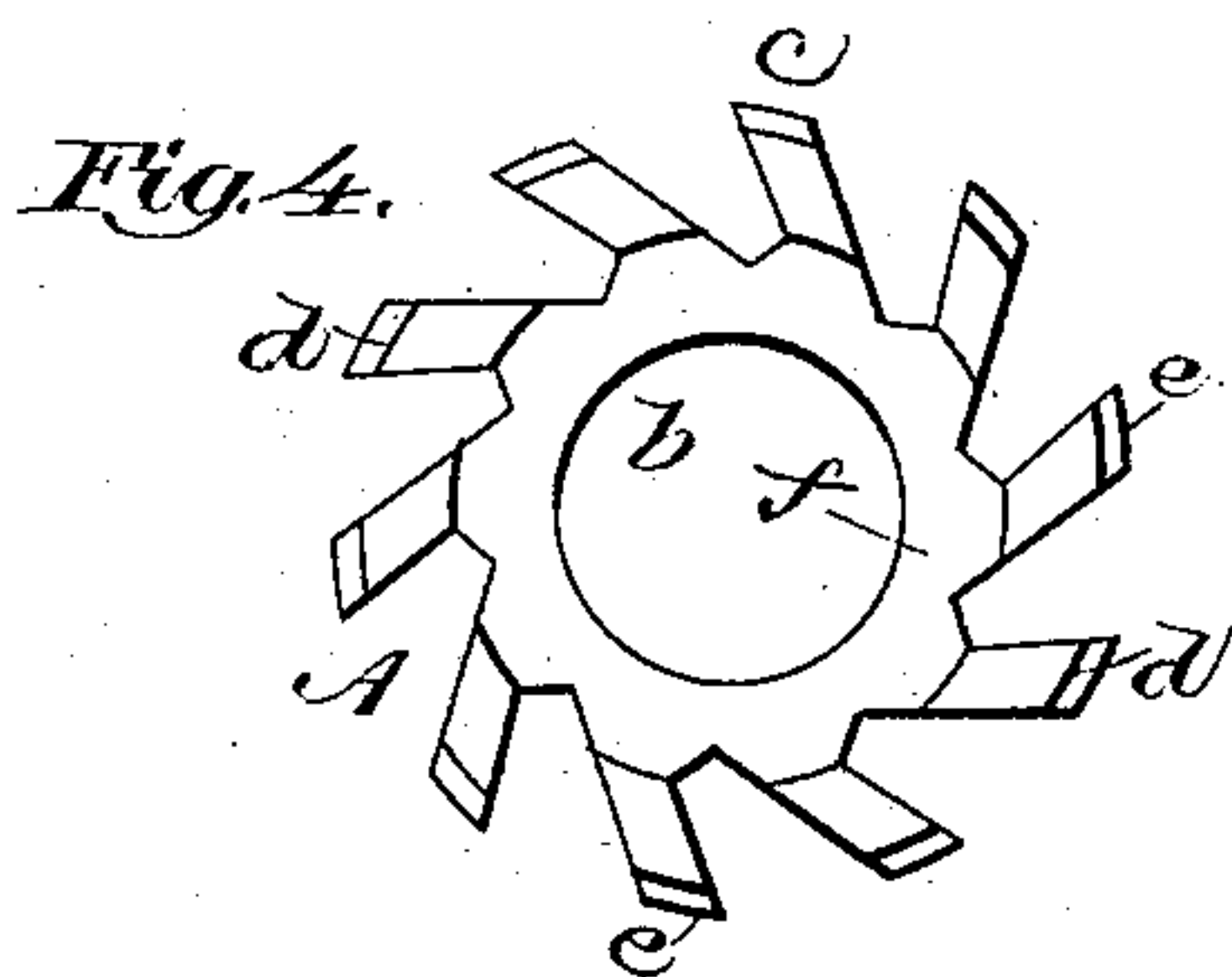
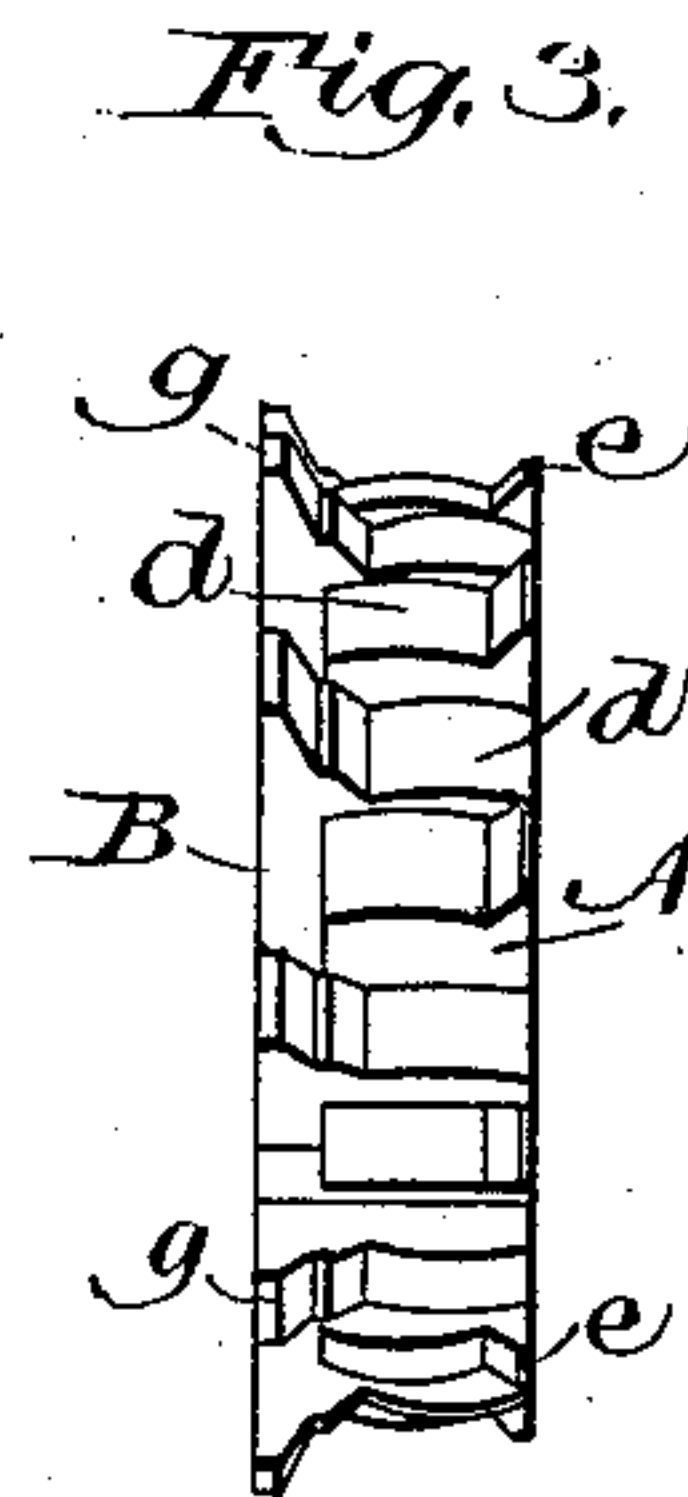
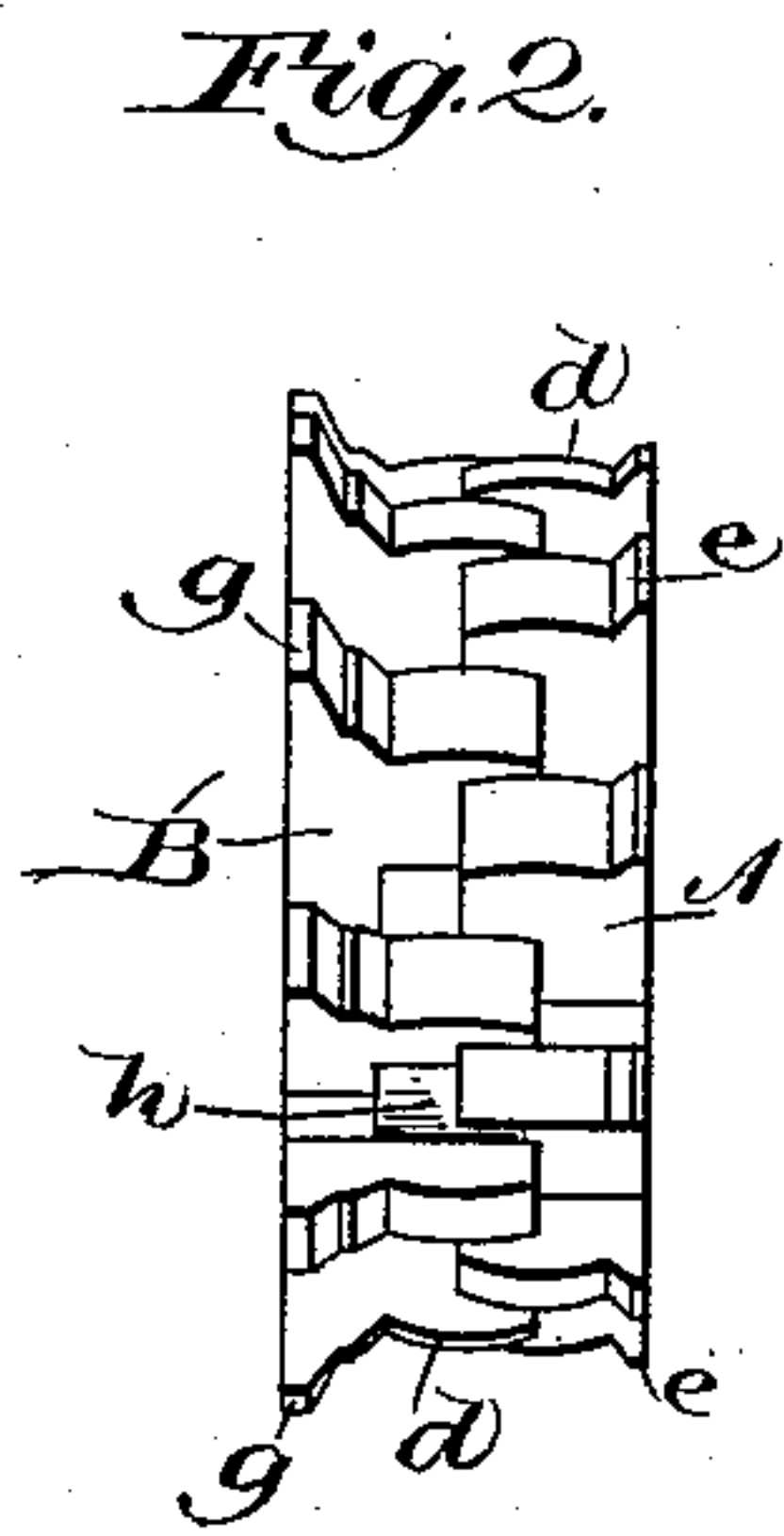
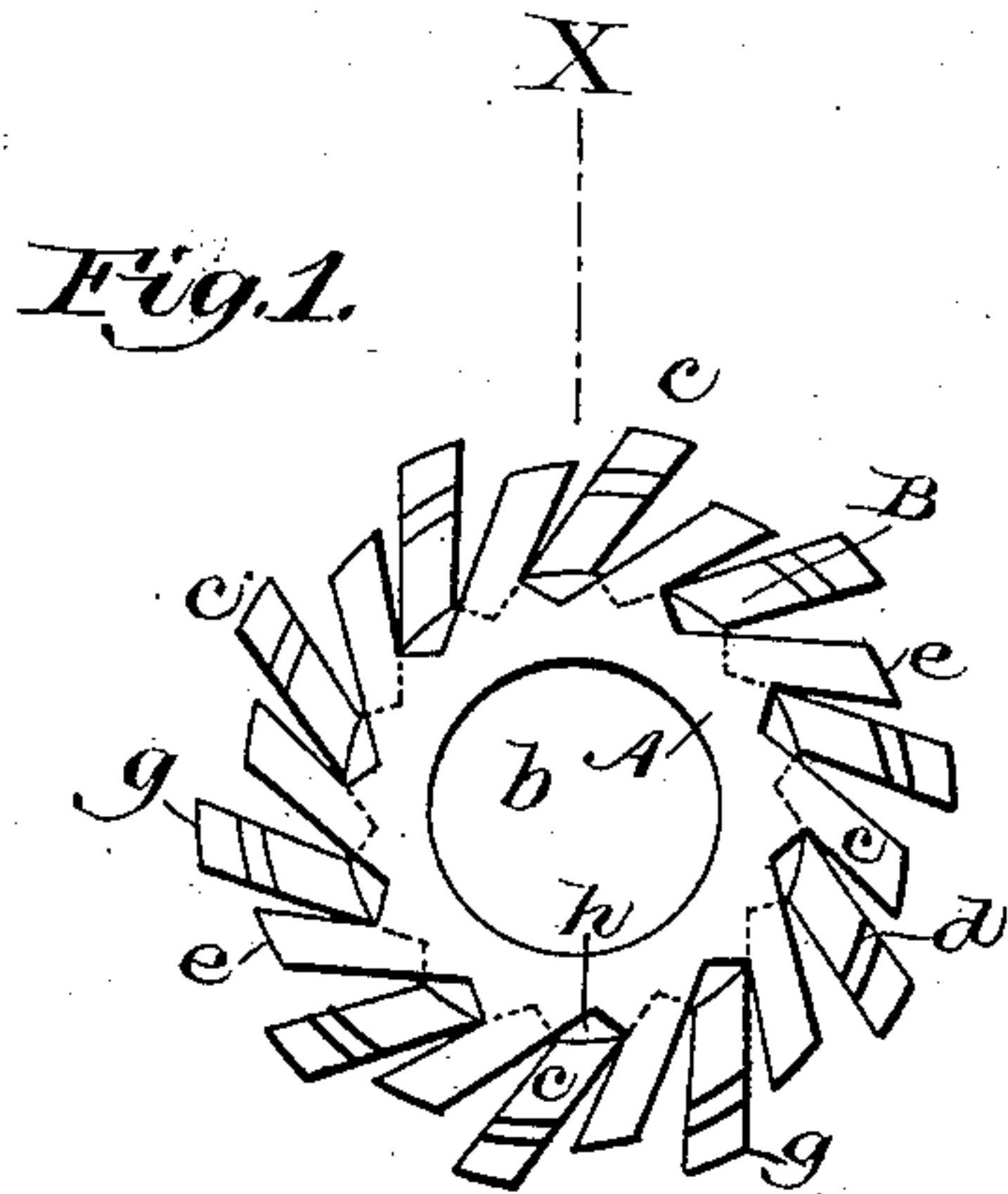
(No Model.)

E. F. WHITE.

TELESCOPIC ROTARY SOLE TRIMMING CUTTER.

No. 324,345.

Patented Aug. 11, 1885.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD F. WHITE, OF WEYMOUTH, MASSACHUSETTS, ASSIGNOR OF ONE-THIRD TO WILLIAM A. HALL, OF SAME PLACE.

TELESCOPIC ROTARY SOLE-TRIMMING CUTTER.

SPECIFICATION forming part of Letters Patent No. 324,345, dated August 11, 1885.

Application filed April 23, 1885. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. WHITE, of Weymouth, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Telescopic Rotary Sole-Trimming Cutters, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claims.

This invention has for its object an improvement in that class of rotary cutters which are used for trimming the edges of boot and shoe soles; and it consists in cutters which are formed in two halves, telescopic, so that by means of three cutters of any style all thicknesses of soles may be thereby trimmed, all as will, in connection with the accompanying drawings, be hereinafter fully described and particularly claimed.

In said drawings, Figure 1 is a side elevation of my cutter as when the parts are assembled, and as viewed from the right in Figs. 2 and 3. Fig. 2 is an edge elevation of the assembled cutter, shown as extended and as viewed from the left in Fig. 1. Fig. 3 is a view like Fig. 2, except that the halves of the cutter are shown as closed together. Fig. 4 is a detached elevation of the right half of the cutter as shown in Figs. 2, 3, and is shown as viewed from the left in those figures. Fig. 5 is a similar view of the left half of the cutter as shown in Figs. 2, 3, and is shown as viewed from the right in those figures. Fig. 6 is a diametric section of Fig. 4 taken on line xx , and viewed as from the right in that figure. Fig. 7 is a section on line xx through Fig. 5, and viewed as from the left in that figure. Fig. 8 is a section on said line xx , Fig. 1, and viewed as from the left in that figure, and showing the cutter extended as in Fig. 2 and as mounted upon its arbor with the rand disk or guide in place. Fig. 9 shows the several parts of the cutter disconnected, but as in proper relative position for assembling with the rand disk or guide also in such position.

My invention is peculiarly applicable to and is shown in connection with a cutter having its teeth formed with a front and rear flat face and an outer or peripheral face molded throughout to a uniform shape, the converse of the

desired shape of the sole edge thereby trimmed, such a cutter being shown in United States Patent No. 212,971, issued March 4, 1879, to William D. Orcutt.

In said drawings, A represents the half or section of the cutter upon which the rand lip or ridges e are formed, the same being raised above the bed portion d of the teeth c . Said section A is formed with the usual arbor-receiving axial passage, b , and with a suitable number of teeth c arranged at equal distances around its central hub or portion, a concentric recess, f , being formed in its inner face to receive in part a flat ring, h , as shown in Fig. 8.

Section B represents the portion of the cutter having the guard g formed upon its teeth c . This section is formed with passage b and concentric recess f , as is section A.

The teeth in each of these sections are arranged at such distances apart that when brought together the teeth of each section will enter the spaces between the teeth of the other section, as shown in Figs. 1, 2, 3, and the curvature of bed d (when the cutter is of the molded pattern) is such upon sections A B that when the cutter is at its least thickness, as in Fig. 3, or at its greatest thickness, as in Figs. 2, 8, the curve of the cross-section of the bed of the sole cut by the conjoint action of the two sections thus assembled shall possess the desired curve.

By chambering the sections A B at f a flat ring, h , of the minimum thickness shown in Fig. 9 is interposed between the sections in said recess, and when the several parts are secured upon arbor C by rand-guard D and axial screw i said ring prevents further telescoping together of the sections, and by providing a series of said rings, each one sixty-fourth ($\frac{1}{64}$) of an inch thicker than the next thinner, a large number of thicknesses of soles may be trimmed by the same cutter, and by having three cutters of the same peripheral contour of face, except length of teeth, and with teeth of such relative length that the thinnest sole trimmed by cutter No. 2 would be one sixty-fourth of an inch thicker than the thickest trimmed by No. 1, and with the same relative proportions between cutter No. 2 and No. 3, every thickness of sole may be trimmed with but three of my cutters, which

will be seen to be a great gain when it is considered that with the varieties of styles and thickness of soles which are manufactured it requires many thousands of cutters in stock
5 in order to have but one of each variety.

As it would not be practicable to form the rings h from a sixty-fourth of an inch in thickness upward by such increase, therefore the minimum ring is preferably of about the thickness shown in Fig. 9.
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It will be obvious that my cutters may be formed with any desired style of molded peripheral face as readily as with that shown.

I claim as my invention—

15 1. A sole-edge-trimming cutter formed in two parts or sections, A B, having teeth c arranged on each said section with spaces to receive freely the teeth of the other half, said teeth in each half being also formed with a
20 cutting-edge and a fraction of a complete lineal contour, which, when the halves are united and duly adjusted, serves to cut the desired

configuration upon the sole edges of different thicknesses, substantially as specified.

2. In a rotary sole-edge cutter, the sections 25 A B, each having cutting-teeth arranged to enter the spaces between the teeth of the other section, the teeth of one of said sections being formed with bed d and rand-lip e , and the teeth of the other section having bed d and 30 guard g , and adapted to be telescopically expanded and contracted to trim soles of different thickness, substantially as specified.

3. In a rotary cutter, the combination, with sections A B, having respectively teeth c , arranged with spaces between them to receive 35 freely the teeth of the other section for telescoping, as described, and also formed with internal recesses, f , of disk h , fitting in said recesses, substantially as specified.

EDWARD F. WHITE.

Witnesses:

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