

(No Model.)

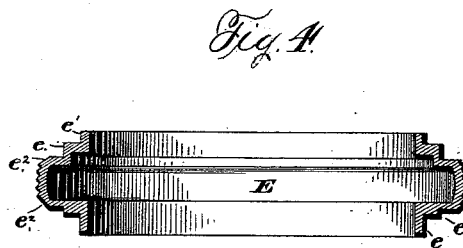
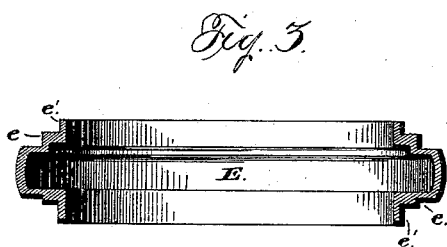
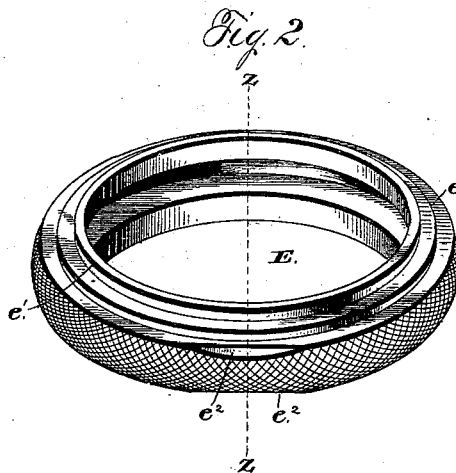
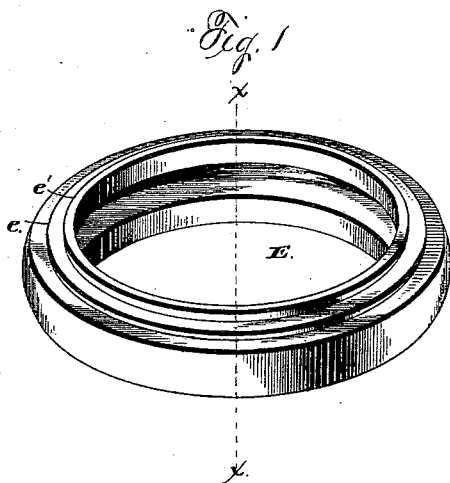
3 Sheets—Sheet 1.

F. ECAUBERT.

MECHANISM FOR MAKING WATCH CASE CENTERS.

No. 420,337.

Patented Jan. 28, 1890.



Witnesses
Chas. Williamson.
Henry C. Hazard

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Fig. 5

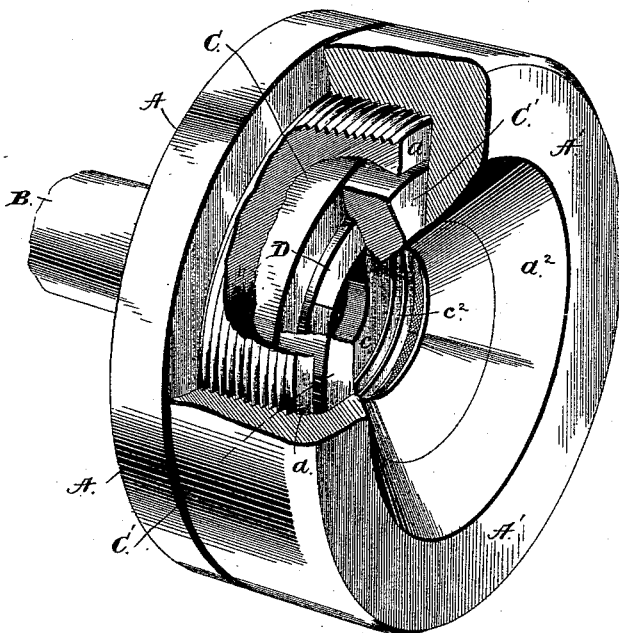
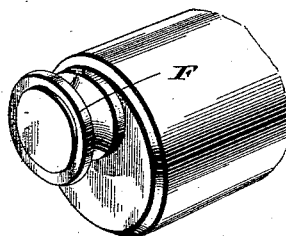


Fig. 6



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(No Model.)

3 Sheets—Sheet 3.

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Fig. 7.

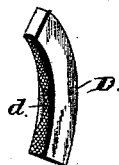
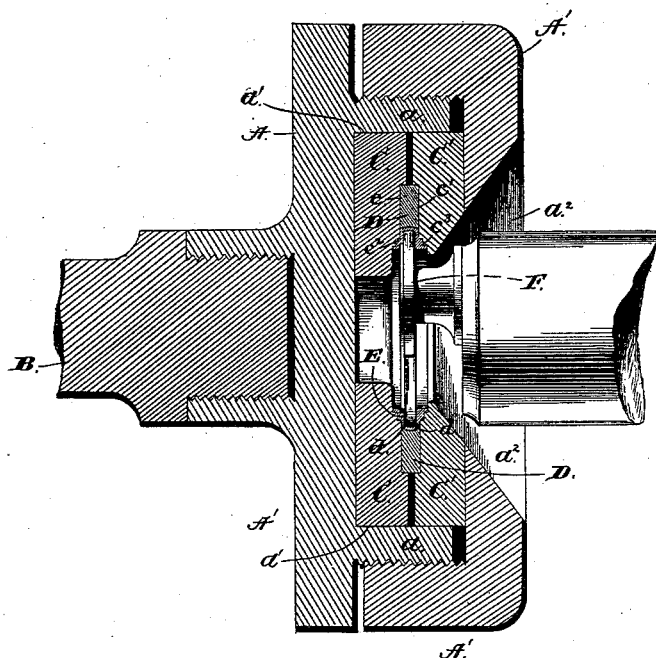


Fig. 8.



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UNITED STATES PATENT OFFICE.

FREDERIC ECAUBERT, OF BROOKLYN, NEW YORK, ASSIGNOR TO WALTER H. FITZ GERALD, OF SAME PLACE.

MECHANISM FOR MAKING WATCH-CASE CENTERS.

SPECIFICATION forming part of Letters Patent No. 420,337, dated January 28, 1890.

Application filed May 25, 1889. Serial No. 312,117. (No model.)

To all whom it may concern:

Be it known that I, FREDERIC ECAUBERT, of Brooklyn, in the county of Kings, and in the State of New York, have invented certain new and useful Improvements in Mechanism for Making Watch-Case Centers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a watch-case center prepared for the action of the finishing-dies. Fig. 2 is a like view of the same after having been operated upon by said dies. Figs. 3 and 4 are sections upon lines $x x$ and $z z$, respectively, of Figs. 1 and 2. Fig. 5 is a perspective view of the die and holder used for operation upon the periphery of the case-center. Fig. 6 is a like view of the roller-die which operates upon the interior of said center. Fig. 7 is a perspective view of one of the sections of said peripheral die separated from its holder, and Fig. 8 is an axial section of said parts as combined for and in operation upon a case-center.

Letters of like name and kind refer to like parts in each of the figures.

My invention relates to filled watch-cases, or watch-cases in which there is employed a body of base metal covered by a fine metal, and is designed to enable the case-center to be constructed without exposure of the base metal; to which end my said invention consists in the mechanism employed, substantially as and for the purpose hereinafter specified.

To carry my invention into practice I employ a die-chuck the body of which A is adapted to screw upon or be attached to a lathe-spindle B, and is provided upon its periphery with a threaded section a , upon which is fitted an interiorly-threaded outer section or cap A'. Within the front side of said body A is formed a plain cylindrical recess a' , while within said outer section is provided a round opening a^2 , that is smaller in diameter than said recess and from its outer side inward has an inwardly-decreasing or conical form. Within the recess a' is fitted an annular ring C, that loosely fills the same radially and has a thickness substan-

tially equal to one-half its depth. A second similar annular ring C' is fitted within the outer portion of said recess and has such thickness as to cause its outer side to project beyond the outer side of the section A, so that when the cap or outer section A' is screwed rearward it will bear against the outer face of said ring C' and enable the same and said ring C to be pressed firmly against the rear side of said recess.

Within the inner faces of the rings C and C' are provided annular recesses c and c' , respectively, which receive and contain an annular die D, that is divided transversely into two or more sections and has such thickness as to prevent the inner faces of said rings from meeting, so that when the cap-section A' of the chuck is screwed inward said sectional die will be firmly clamped in position.

Interiorly the sectional die D corresponds to the periphery of the case-center E which is to be made, and has in reverse such ornamentation as it is desired to produce upon said center, while within each ring C and C', adjacent to the inner face of said die, is formed a recess c^2 and c^3 , respectively, that corresponds to and is the reverse of those portions of said center which contain the snaps e and e' for the covers and bezel. At one point within said die D is provided an inclined face d or two oppositely-inclined faces d and d , that correspond to but are the reverse of the hinge-flats e^2 and e^3 upon the case-center.

In the use of the mechanism described a case-center E is by any suitable means given the required size and general shape, as shown in Figs. 1 and 3, and is then clamped within the die and caused to rotate, after which a roller F, having such shape of periphery as will cause it to fit into the interior of the center E, is placed within the interior of the same and pressed outward against one side until by rolling action the outer face of said center has been forced into and caused to conform to the configuration of said die. Upon removing the case-center E thus operated upon from the die D it will be found that the periphery of said center has received the predetermined ornamentation and that

the hinge-flat e^2 or hinge-flats e^2 and e^3 have been formed; but while in the production of said flats the metal has been thinned at such points the fine-metal covering has not been
5 disturbed and maintains its thickness and integrity, so that in the completion of the watch-case in the usual manner the base-metal filling will not be exposed.

Having thus described my invention, what
10 I claim is—

1. As an improvement in mechanism for constructing the centers of filled watch-cases, a sectional die which interiorly has the reverse of the form of the periphery of a finished case-center with hinge flat or flats, in
15 combination with mechanism whereby such die may be clamped around the case-center and rotated, and with a roller that is adapted to be pressed against the interior of such
20 case-center and force the metal of the same outward into and cause it to conform to the

interior of said die, substantially as and for the purpose specified.

2. As an improvement in mechanism for constructing the centers of filled watch-cases, 25 a sectional rotatable die which interiorly is adapted to fit upon and around a case-center and is provided with a face or with faces that are the reverse of the hinge-flats of such case-center, in combination with a roller 30 that is adapted to have rolling contact with the interior of said case-center and to press the same outward and cause it to conform to the shape of the interior of said die, substantially as and for the purpose shown. 35

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of May, 1889.

F. ECAUBERT.

Witnesses:

GEO. S. PRINDLE,
GEO. T. PINCKNEY.