

(No Model.)

F. MINK.
MACHINE FOR ORNAMENTING WATCH CASES.
No. 468,748. Patented Feb. 9, 1892.

FIG. 1.

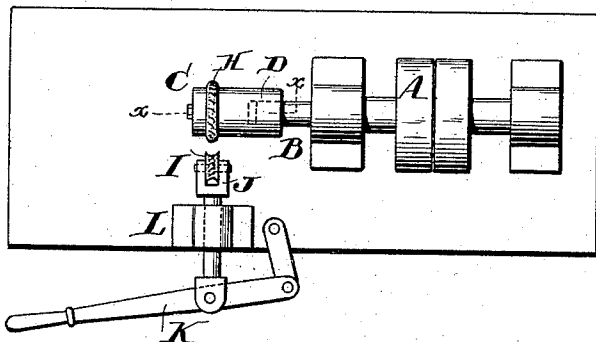


FIG. 2.

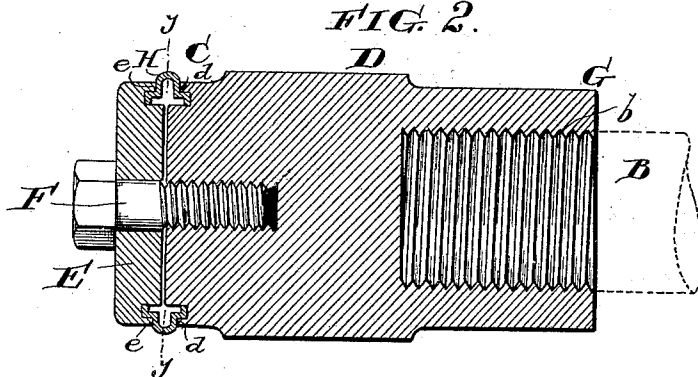


FIG. 3.

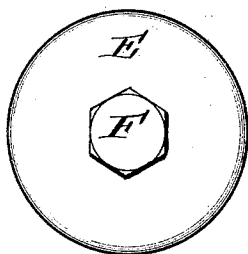
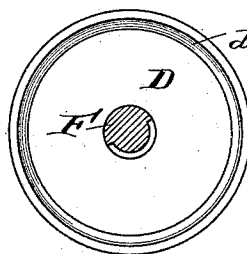


FIG. 4.



Witnesses:
Camp Duff
Must Edmund Smith

Inventor:
Fritz Mink
By his Attorney
[Signature]

UNITED STATES PATENT OFFICE.

FRITZ MINK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
KEYSTONE WATCH CASE COMPANY, OF SAME PLACE.

MACHINE FOR ORNAMENTING WATCH-CASES.

SPECIFICATION forming part of Letters Patent No. 468,748, dated February 9, 1892.

Application filed February 28, 1891. Serial No. 383,320. (No model.)

To all whom it may concern:

Be it known that I, FRITZ MINK, of the city and county of Philadelphia, and State of Pennsylvania, have invented an Improvement in Machines for Ornamenting Watch-Cases, of which the following is a specification.

My invention relates to machines for ornamenting watch-cases; and it consists of certain improvements which are fully set forth in the following specification and are shown in the accompanying drawings, which form a part thereof.

My invention relates more especially to the devices for clamping or holding the object to be operated upon while the ornamentation is applied thereto and to certain novel combinations and arrangement of parts which are hereinafter more fully described and claimed.

My invention is particularly adapted to the clamping and holding in place of watch-case centers while the annular surface thereof is brought in contact with a knurling or ornamenting tool. It may, however, be applied to the other parts of watch-cases and to other articles or objects to the surface of which ornamentation is to be applied.

In the drawings, Figure 1 is a plan view of my improved machine for ornamenting watch-cases, &c. Fig. 2 is a longitudinal sectional view of the clamp, on an enlarged scale, taken on the line *xx* of Fig. 1. Fig. 3 is an end elevation of the same, and Fig. 4 is a vertical sectional view on the line *yy* of Fig. 2 with the work removed.

A is a lathe of any convenient construction, having the spindle B.

C is the clamp which is carried by the spindle B and supports the work to be operated upon. The clamp consists of the body portion D, having a stepped annular rim *d*, the cap E, also having a stepped annular rim *e*, and the clamping screw or bolt E', extending through the cap E into the body portion D to clamp the parts E and D together. The rims *d* and *e* are formed by cutting away the adjacent annular edge of the body portion D and cap E to suit the rims of the object to be clamped. In the drawings I have shown these rims *d* and *e* formed to suit the ordinary form of watch-case center; but it is obvious that

the particular shape or formation of these rims may be varied to suit the shape of the particular object to be clamped. It will be seen that when the cap and body portion are drawn together there is an annular open space between the rims *d* and *e*, through which the surface of the metal to be ornamented is exposed. The body portion D of the clamp may be formed with a screw-threaded recess G to receive the screw-threaded end *b* of the spindle B for the purpose of connecting the clamp with the spindle.

H is the watch-case center or other object which is to be treated. It is placed between the body portion D and the cap E, with the rims *d* and *e* thereof fitting upon its edges, as shown. By means of the screw F the cap E is drawn toward the body portion D, clamping the watch-case center between the rims *d* and *e*, with the surface to be ornamented exposed between them in the manner shown in the drawings. The clamping-screw F passes through the center of the cap E, and the head thereof presses upon the cap E and clamps the rim *e* of the cap evenly and uniformly.

I is a knurling or ornamenting tool or wheel journaled in a suitable carrier J, which may be moved to or from the clamp C by means of a lever K. The carrier J may be supported in a suitable guide L. Power is imparted to the lathe A in the usual manner, and the clamp C, carrying the article to be ornamented, is rotated thereby. The knurling-wheel I is moved in contact with the exposed surface of the metal carried by the clamp C, and, rotating in contact therewith, imparts the desired ornamentation to it. If desired, however, the clamp C may be fixed and the ornamenting wheel or tool may be moved about it, or the knurling or ornamenting tool may be power-driven, with the spindle B free to rotate. In any of these cases the features of the clamp remain the same and act in the same manner in firmly holding the work in place.

While I prefer the minor details of construction which are shown, they may be varied without departing from my invention and are not to be taken as limitations of it.

What I claim as new, and desire to secure by Letters Patent, is—

1. A clamp for holding watch-case centers, consisting of the body portion D, having the annular rim *d*, the cap E, having the rim *e*, and the screw F, passing through the cap E and engaging with the body portion D to clamp the two together, the work being clamped between the rims *d* and *e*.

2. A clamp for holding watch-case centers, &c., consisting of the body portion D, having the annular rim *d*, the cap E, having the rim *e*, and the screw F, passing through the cap E and engaging with the body portion D to clamp the two together, the work being clamped between the rims *d* and *e*, in combination with a rotary spindle of a lathe adapted to carry said clamp and an ornamenting-tool adapted to be brought in contact with surface of the metal of the work exposed between said rims *d* and *e*.

3. A clamp for holding watch-case centers, &c., consisting of a body portion having its edge cut away to fit the rim of the watch-case center or other article to be held, a cap hav-

ing its edge adjacent to the edge of the body portion also cut away to fit the rim of the center, and a clamping-screw extending through the center of said cap and into the body portion of the clamp to draw said cap and body portions together, with an annular open space between their cut-away edges, substantially as and for the purpose described.

4. A clamp for holding watch-case centers, &c., consisting of a body portion having an annular rim adapted to fit upon one side of the watch-case center, a cap having an annular rim adapted to fit upon the other side thereof, and means to force said cap toward the body portion to firmly clamp the center between the annular rims of the body portion and cap.

In testimony of which invention I have hereunto set my hand.

FRITZ MINK.

Witnesses:

ERNEST HOWARD HUNTER,
JOHN A. BRAMLEY.