

(No Model.)

G. E. HART.

MANUFACTURE OF WATCH CASE PENDANTS.

No. 364,108.

Patented May 31, 1887.

Fig. 1.

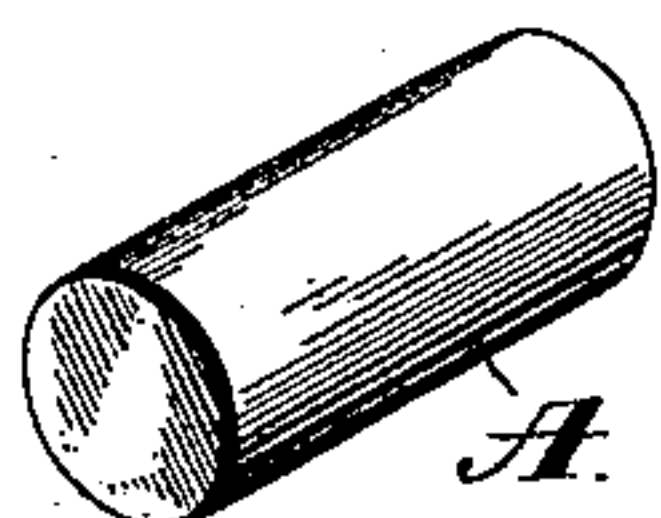


Fig. 2.

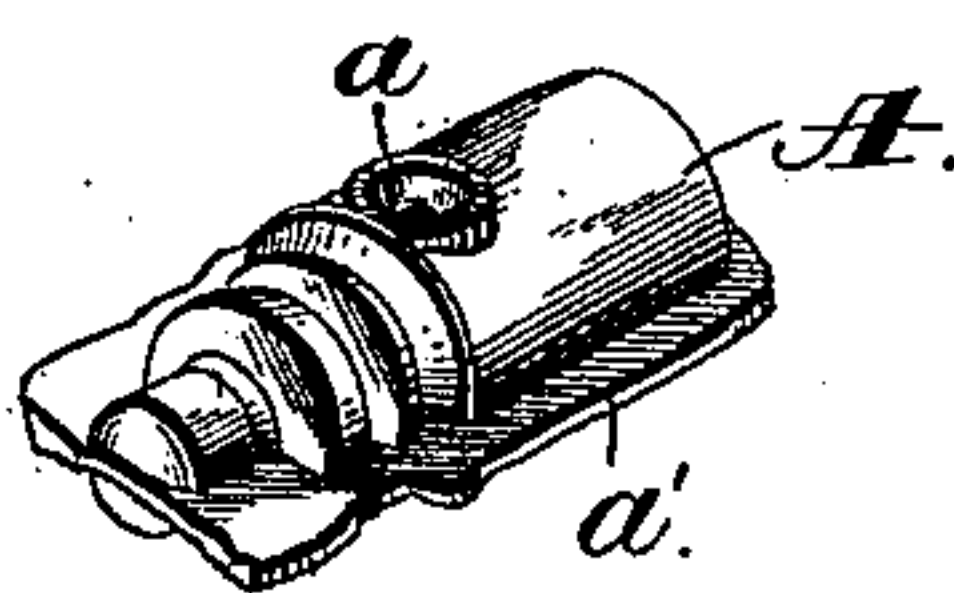


Fig. 3.

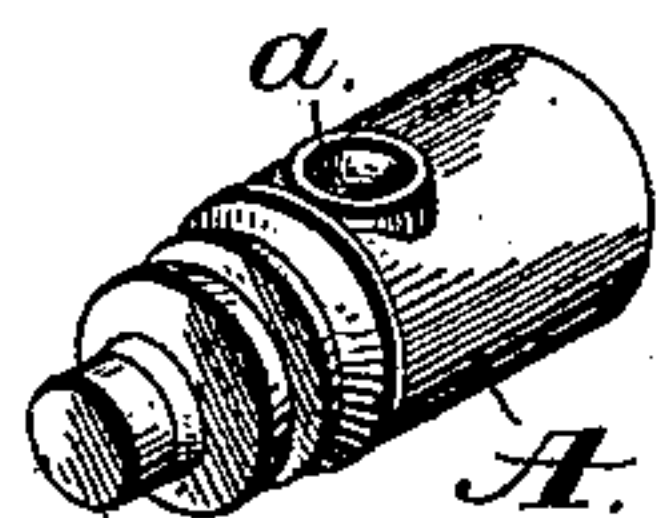


Fig. 4.

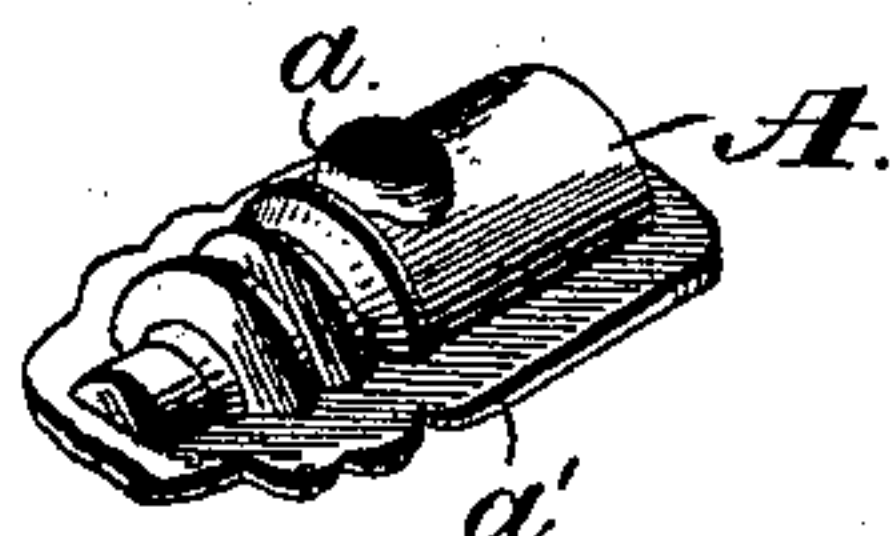


Fig. 5.

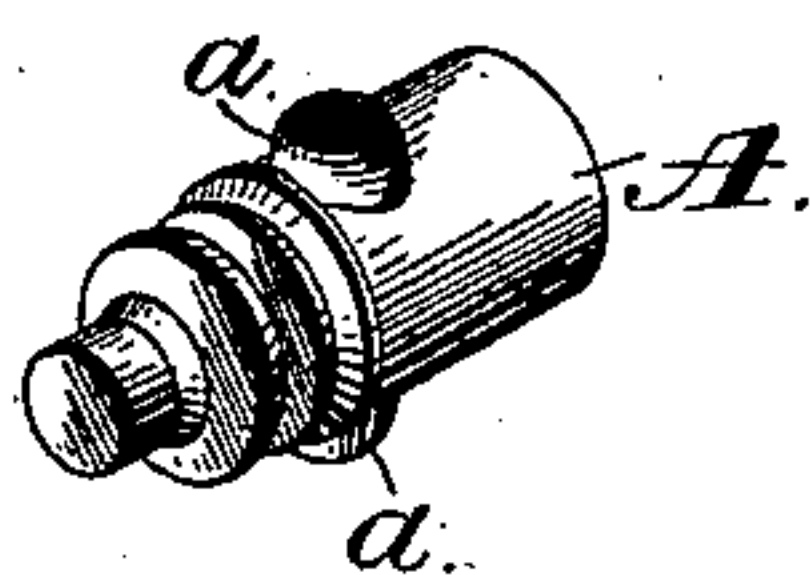
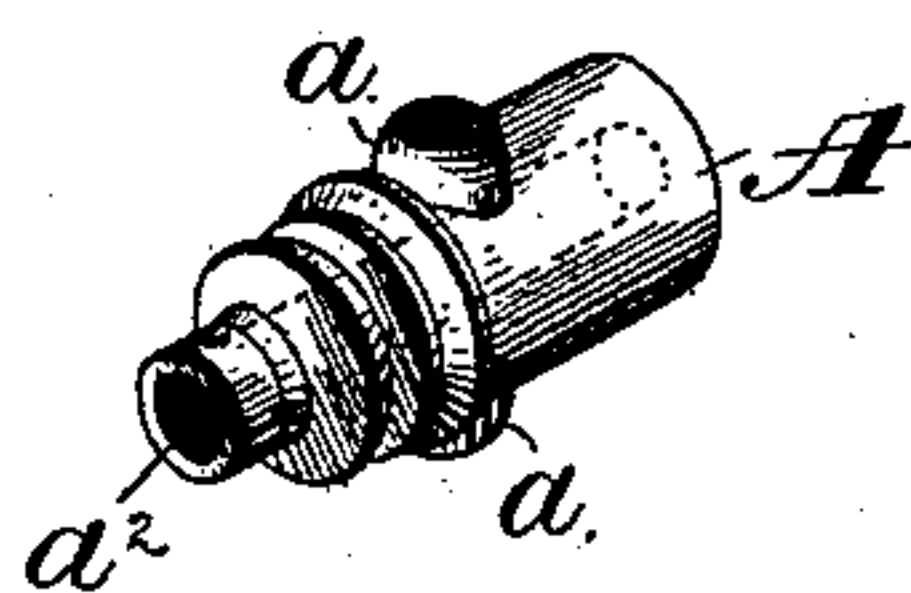


Fig. 6.



Witnesses:
Jas. E. Hutchinson.
Henry C. Hazard.

Inventor.
Geo. E. Hart, by
Prindle & Russell, his Attys

UNITED STATES PATENT OFFICE.

GEORGE E. HART, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE
WATERBURY WATCH COMPANY, OF SAME PLACE.

MANUFACTURE OF WATCH-CASE PENDANTS.

SPECIFICATION forming part of Letters Patent No. 364,108, dated May 31, 1887.

Application filed August 26, 1886. Serial No. 211,884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HART, of Waterbury, in the county of New Haven, and in the State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Watch-Case Pendants; 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 the blank as prepared for the action of the dies. Fig. 2 is a like view of the same after having been operated upon by the first pair of swaging-dies. Fig. 3 is a perspective view of said blank after having passed through the trimming-dies. Fig. 4 is a like view of said part after the operation of the second pair of swaging-dies. Fig. 5 is a perspective view of the blank after completion, and Fig. 6 is a like view of the completed pendant.

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

The design of my invention is to enable the stems or pendants of watch-cases to be more easily and cheaply constructed than has heretofore been practicable; and to this end said invention consists, principally, in the method employed for forming from one piece of metal a pendant having ring-sockets which are a part of and integral with its body, by swaging a cylindrical blank between dies, each of which contains a recess that corresponds to and is adapted to form one half of the exterior of the desired article, substantially as and for the purpose hereinafter specified.

It consists, further, in the method of forming from one piece of metal a watch-case pendant having ring-sockets which are a part of and integral with its body, by swaging a cylindrical blank upon opposite sides into the external form desired, and then trimming from the same the protuberant fin produced by the expulsion of surplus metal from between the dies, substantially as and for the purpose hereinafter shown.

It consists, further, in the method of forming from one piece of metal a watch-case pendant having ring-sockets which are a part of and integral with its body, by swaging a cylindrical blank upon opposite sides into the general form desired, then trimming off a protu-

berant fin left by the swaging-dies, then reswaging the blank between finishing-dies, and, finally, polishing the surface of said blank, substantially as and for the purpose hereinafter set forth.

It consists, finally, in the method of forming from one piece of metal a watch-case pendant having ring-sockets which are a part of and integral with its body, by swaging a cylindrical blank upon opposite sides into the general form desired, then trimming off a protuberant fin left by the swaging-dies, then reswaging the blank between finishing-dies, then polishing the surface of the completed blank, and, finally, completing the pendant by forming within said blank an axial opening, substantially as and for the purpose hereinafter shown and described.

In the carrying of my invention into practice a blank, A, having the form of a plain cylinder, is cut from a wire or produced in any suitable manner, and is subjected to the action of a pair of dies, which, acting upon opposite sides, operate to give to said blank the general shape of a pendant having upon each side a ring-socket, *a*, as shown in Fig. 2.

The surplus metal of the blank A is, by the action of the dies, pressed outward in the form of a fin, *a'*, which fin is next removed by means of trimming-dies that leave said blank in the shape seen in Fig. 3.

The next operation consists in reswaging the blank A between highly-finished dies, which operate to give to its exterior the exact size and shape required and leave it in the form shown in Fig. 4, after which the fin *a'*, that is again produced, is removed and the surface of said blank then polished, the result being seen in Fig. 5. For open-faced key-winding watches the blank pendant is now ready for insertion within a case-center; but for use with a hunting-case, or where a stem-arbor is to be journaled within the pendant, a further operation is necessary, such operation consisting of the formation of an axial opening, *a''*, within said blank, the result being shown in Fig. 6.

This method described requires no skilled labor for the construction of a pendant, as the work is all done by machinery, which may be superintended by cheap unskilled attendants. There is less waste of material than by usual

methods, and the product is denser, harder, and much stronger than would be otherwise obtainable.

Having thus described my invention, what I claim is—

1. The method employed for forming from one piece of metal a pendant having ring-sockets that are a part of and integral with its body, which consists in swaging a cylindrical blank between dies that contain each a recess which corresponds to and is adapted to form one half of the exterior of the desired article, substantially as and for the purpose specified.

2. The method of forming from one piece of metal a watch-case pendant having ring-sockets that are a part of and integral with its body, which consists in swaging a cylindrical blank upon opposite sides into the external form desired, and then trimming from the same the protuberant fin produced by the expulsion of surplus metal from between the dies, substantially as and for the purpose shown.

3. The method of forming from one piece of metal a watch-case pendant having ring-sockets that are a part of and integral with its body, which consists in swaging a cylindrical blank

upon opposite sides into the general form desired, then trimming off a protuberant fin left by the swaging-dies, then reswaging the blank between finishing-dies, and, finally, polishing the surface of said blank, substantially as and for the purpose set forth.

4. The method of forming from one piece of metal a watch-case pendant having ring-sockets that are a part of and integral with its body, which consists in swaging a cylindrical blank upon opposite sides into the general form desired, then trimming off a protuberant fin left by the swaging-dies, then reswaging the blank between finishing-dies, then polishing the surface of the completed blank, and, finally, completing the pendant by forming within said blank an axial opening, substantially as and for the purpose shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of August, A. D. 1886.

GEORGE E. HART.

Witnesses:

GEO. S. PRINDLE,
GEO. E. TERRY.