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METHOD OF FORMING WATCHCASES
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Fig. 1.

Fig. 2.

Fig. 3.

WITNESS

Copyright

INVENTOR

ATTORNEYS
This invention relates to the production of watch cases of the wrist watch type in which the case is provided with lugs for the attachment of straps or the like.
5 The invention has for its object, the production of such watch cases by a novel method of manufacture whereby the case is made from a blank stamped out of sheet metal in the general shape of the case including lugs and then is brought into final shape by being expanded by pressing, stamping, spinning or other extrusion methods in a die the interior wall of which is an exact replica of the shape desired.
10 The invention will be better understood by a description in connection with the accompanying drawings in which—

Figure 1 shows a blank which has been stamped out of sheet metal stock and inserted in a proper die;
15 Figure 2 is a transverse diametrical section of the blank;
Figure 3 is a transverse diametrical section of the finished case shown in the die.

A blank 1 is first punched out of sheet metal of proper thickness. The punch and die being shaped so as to form an interior circular orifice and a substantially circular exterior with four projecting lugs 2, extending therefrom. The blank will have a diameter slightly smaller than the finished lugs so that the blank may be easily placed in an expanding or forming die 3. This die may be made in two parts as shown in Figure 3, separable on the central plane of the case to permit the introduction and extraction of the case to and from the die, and the die may be provided with means for mounting it upon a spinning mandrel so that with the aid of a spinning or expanding tool or wheel 4 (see Figure 1) the metal may be expanded or extruded to entirely fill the die, a proper interior concavity being formed at the same time if desired, as shown in Figure 3. By this method the blank which will necessarily be in the form shown in Figure 2 with the burrs left by the punching process, will be so upset and expanded by the spinning or extruding process as to have a smooth rounded edge exterior and any desired amount of interior undercut.

Any equivalent form of extruding apparatus may be used instead of the spinning tool shown. Such cases have the advantage over cases as made heretofore, with the lugs soldered, brazed, riveted or otherwise attached to the case center, by being of one solid piece giving a more perfect appearance, a truer form and a more solid endurable construction.

I claim—

1. The method of making a watch-case center in one piece with integrally-formed lugs, which method consists in forming a blank provided with projecting lugs and substantially similar in contour to the finished one-piece watch-case center, in placing said blank in a die having a contour corresponding to that of the finished one-piece watch-case center, and finally in applying pressure to said blank to expand said blank into exact conformity to the contour of said die.

2. The method of making a watch-case center provided with wrist-attachment lugs, which method consists in forming a blank provided with a central opening and outwardly-presented lugs and with a contour substantially similar to that of the finished watch-case center, in placing said blank in an expanding die provided with a cavity corresponding to the finished watch-case center, and in applying pressure to the edge of the metal extending around said opening for changing the unfinished form of said blank into the perfected form of the watch-case center prescribed by said cavity.

3. The process of making a watch-case center with lugs formed thereon, which process consists in stamping from sheet-metal a blank having a central opening and outwardly-presented lugs of substantially similar contour and arrangement to the finished watch-case center, in placing said blank in a forming die provided with a cavity having a contour corresponding to that of the finished watch-case center, and finally in applying pressure to said blank along the edge of the central opening therein for expanding the blank within said cavity.

HARRY COOK.