

important factor in enhancing their commercial value.
For this reason, high priced wrist watches made of
noble metals have various elaborate ornamental patterns
provided on their watch cases and watch bands. Such
ornamental patterns are manually formed by skilled
workmen.

The forming of such ornamental patterns sharply
increases the manufacturing cost of wrist watches
because of the manual operation by skilled workmen.
It is impossible to provide engraved ornamental patterns
on relatively low priced wrist watches from the point of
manufacturing cost. Furthermore, cutting ornamental
patterns produces a great deal of chips or swarf which
involves loss of valuable material, resulting in a
considerable increase in manufacturing cost.

Accordingly, the present invention seeks to
provide a wrist watch which is provided with an
ornamental pattern at a lower cost than the conventional
wrist watch, without any significant loss of valuable
material.

Although the present invention is primarily
directed to any novel integer or step, or combination
of integers or steps, herein disclosed and/or as shown in
the accompanying drawings, nevertheless, according to
one particular aspect of the present invention to which

10 provided with a pattern during formation by casting,
sintering or powder moulding. Thus productivity of
wrist watch is enhanced without loss of material, and
this enables considerable reduction in manufacturing
cost.

15 Preferably, a case frame of the watch case and
the watch band are formed of the same material by the
same method, lateral edges of the case frame and
corresponding lateral edges, adjacent thereto, of the
watch band having the same pattern.

20 The pattern of the case frame and the pattern of
the watch band may each comprise serrations. In one
embodiment the serrations of the case frame have the
same pitch as the serrations of the watch band. Thus
the serrations of the case frame may be in phase with
25 the serrations of the watch band.

In one embodiment the serrations of the case frame
and the serrations of the watch band extend cross-wise

In another embodiment the serrations of the case
frame and the serrations of the watch band extend
30 laterally.

According to another non-restrictive aspect of
present invention there is provided a method of making
wrist watch comprising a watch case and a watch band
casting, sintering or powder moulding the watch case

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Figure 3 is a an enlarged exploded perspective view showing parts of a watch band of the wrist watch of Figure 1;

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Figures 4A to 4C are enlarged fragmental views modified forms of vertical serrations of the wrist watch of Figure 1;

Figure 5 is a perspective view of a modified form of the wrist watch of Figure 1, the wrist watch being provided with lateral serrations;

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Figures 6A to 6C are enlarged fragmental views modified forms of lateral serrations of the wrist watch of Figure 5; and

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Figures 7 and 8 are perspective views of modified forms of the wrist watch of Figure 5, the modified wrist watches being provided with rope shaped patterns;

Throughout the drawings, like parts have been designated by the same reference numerals.

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A wrist watch according to the present invention is illustrated in Figure 1. The wrist watch comprises a case frame 1A of a watch case 1 and a watch band 2 made of the same material. The material used for the watch case and the watch band may, for example, be metal or a ceramic material. The case frame 1A is provided in opposite lateral edges 1B with imprinted or impressed vertical serrations. The watch band 2 is joined at

each end is interposed between the case frame 1A and the wrist band 2.

As shown in Figure 2, the case frame 1A of the watch case 1 and the watch band 2 are joined by a joining pin 5, such as a spring bar, as conventionally known. The watch band 2 is, as shown in Figure 2, composed of two rows of outer links 6, 7 and a row of centrally interposed links 8. Corresponding outer links 6, 7 and interposed links 8 are connected by connection pins 9 (Figure 3).

The case frame 1A may be formed by, for example, casting, sintering or powder moulding. The vertical serrations 3 are formed during the fabrication of the case frame 1A. More specifically, the case frame 1A is formed by a mould or a die (not shown) having complementary serrations formed in inner surfaces thereof. Furthermore, the outer links 6, 7 and the connection pins 9 are produced by the same method as the case frame 1A and, similar to the vertical serrations 3, the vertical serrations 4 are formed during production.

The formation of the vertical serrations 3, 4 by powder moulding includes, for example, the steps of: fabricating a metal pattern; fabricating a rubber pattern; cutting the rubber pattern; fabricating a wax pattern; correcting the wax pattern; assembling the

10 powder into a die; pressurised sintering; and post-processing.

Which method is adopted depends on the kind of material used for the case frame and the watch band, the pattern of the vertical serrations 3, 4, price of the wrist watch, etc.

15 Various modified forms of the vertical serrations 3, 4 are illustrated in Figures 4A to 4C. The vertical serrations shown in Figure 4A are rectangular in cross section. The vertical serrations 3, 4 in Figures 4B & 20 4C have a semi-circular cross section, the vertical serrations of Figure 4B being larger in pitch than those of Figure 4C.

Figure 5 illustrates a modification of the wrist watch of Figure 1, where the case frame 1A of the watch case 1 and the watch band 2 have their respective 25 opposite lateral edges 1B, 2B provided with substantially continuous or contiguous lateral serrations 10, 11 respectively. Furthermore, the connection links 8 of the watch band 2 have cross-wise serrations 12 in 30 their upper surfaces.

Figures 6A to 6C show various modified forms of the lateral serrations 10, 11 of Figure 5.

In the wrist watch according to the present invention shown in Figure 7, the case frame 1A and the

three rows of internal rope shaped or similar sections
15, 16, respectively.

In the described embodiments of the present
invention, the watch case 1 and the watch band 2 are
fabricated by the same method, using the same material.
15 However, the watch case 1 and the watch band 2 may be
made of different materials, and further may be formed
by different methods.

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10 formed of the same material by the same method, lateral
edges of the case frame and corresponding lateral edges
adjacent thereto, of the watch band having the same
pattern.

15 3. A wrist watch as claimed in claim 2 in which the
pattern of the case frame and the pattern of the watch
band each comprise serrations.

4. A wrist watch as claimed in claim 3 in which the
serrations of the case frame have the same pitch as the
serrations of the watch band.

20 5. A wrist watch as claimed in claim 3 or 4 in which
the serrations of the case frame are in phase with the
serrations of the watch band.

25 6. A wrist watch as claimed in any of claims 3 to 5
in which the serrations of the case frame and the
serrations of the watch band extend cross-wise.

7. A wrist watch as claimed in any of claims 3 to 5
in which the serrations of the case frame and the
serrations of the watch band extend laterally.

30 8. A wrist watch substantially as herein described
with reference to and as shown in the accompanying
drawings.

9. A method of making a wrist watch comprising a
watch case and a watch band by casting, sintering or
powder moulding the watch case and watch band with

casting, sintering and powder moulding, and in that watch case and the watch band are each provided in surfaces thereof with an ornamental pattern during the forming thereof.

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