

[54] WATCH BAND

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[22] Filed: Sept. 10, 1971

[21] Appl. No.: 179,431

[30] Foreign Application Priority Data

Oct. 24, 1970 Japan.....45-106001
Oct. 24, 1970 Japan.....45-106002

[52] U.S. Cl. 224/4 D, 24/265 WS, 24/78

[51] Int. Cl. A44c 11/02

[58] Field of Search 24/265 SW, 71 J, 70 J,
24/70 ST, 69 J, 69 ST, 78, 71 ST; 224/4 D, 4
H, 28 W

[56] References Cited

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[57] ABSTRACT

A watch band comprising a band element or elements adapted to carry a watch and present opposite free ends, and a clamp pivotally connected with one end of said free ends and adapted to removably receive the other of said free ends, wherein said clamp is of a type including two hinged plate elements adapted to be folded or unfolded for fitting the band around the wrist or releasing the band from the wrist, wherein said other free end of said band element is freely movable relatively to said clamp when said two hinged plate elements are unfolded and is firmly caught by said clamp at any desired position relative to said clamp when said two hinged plate elements are folded.

2 Claims, 7 Drawing Figures

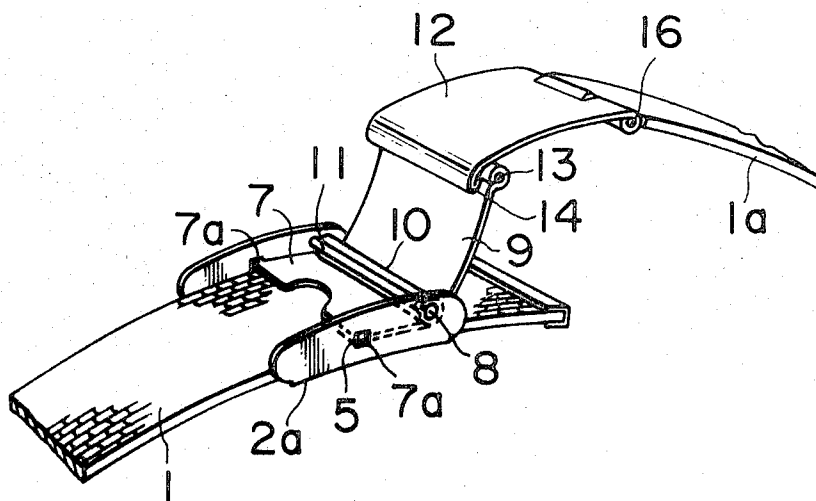


FIG. 1

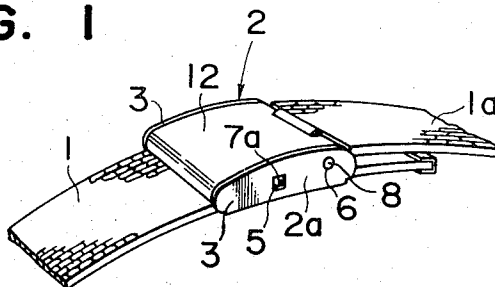


FIG. 2

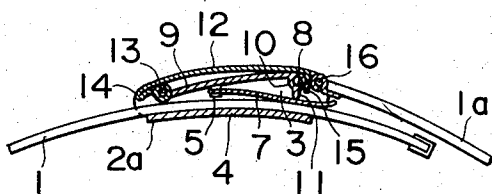


FIG. 3

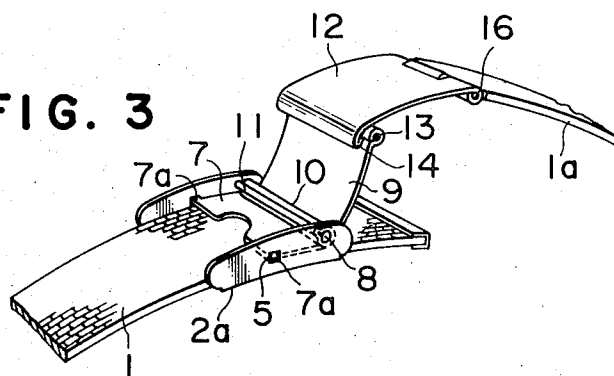
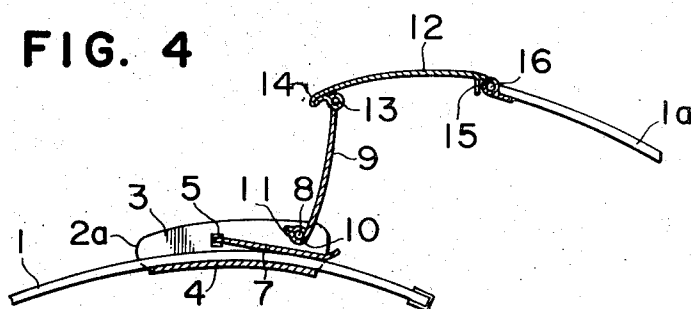


FIG. 4



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FIG. 5

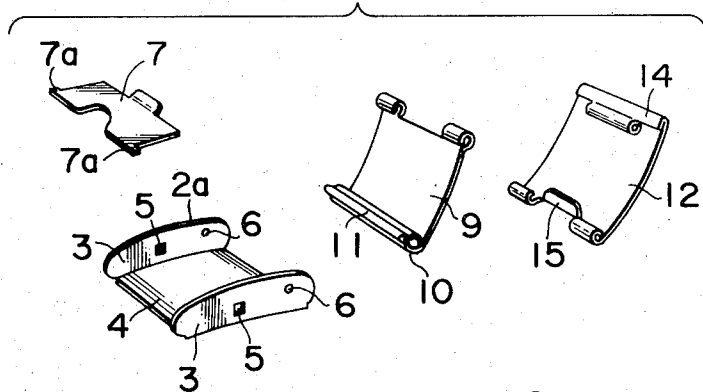


FIG. 6

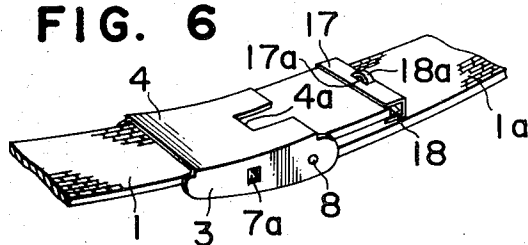
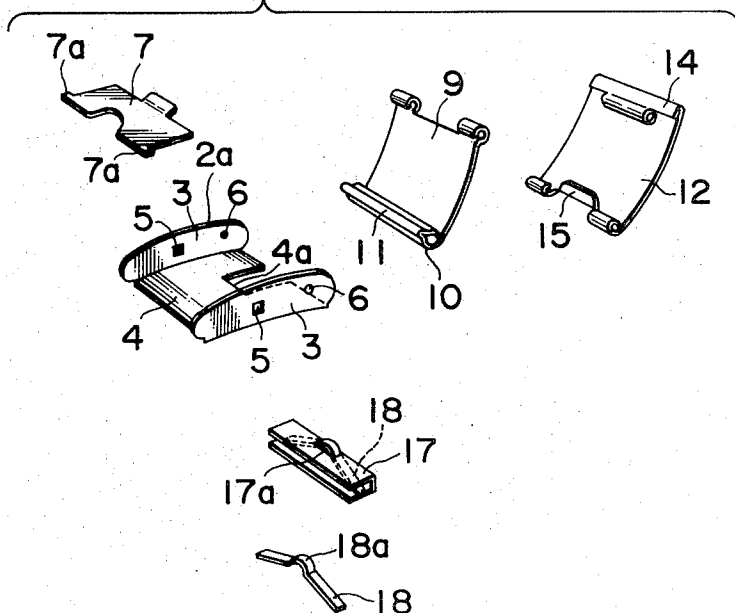


FIG. 7



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WATCH BAND

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a watch band, and more particularly a watch band which provides a ring of any desired peripheral length to fit around the wrist of any person and to allow it to be removed from the wrist readily by passing over the hand.

2. Description of the Prior Art

In conventional watch bands, especially watch bands of chain type, equipped with folding clamps which, in their engaged or folded conditions, provide a ring of a smaller peripheral length to fit around the wrist of a person, while in their disengaged or unfolded conditions, provide a ring of a larger peripheral length to allow them to be removed from the wrist by passing over the hand with gathered fingers, the peripheral length of the ring to fit around the wrist is preliminary determined and can not be changed every time when the watch band is worn, although one may wish to wear the watch relatively loosely in an occasion but relatively tightly in another occasion according to the physical or working conditions. Furthermore, in the conventional watch bands, the peripheral length of the ring with the clamp being unfolded is usually not large enough to allow the band to be readily passed over the hand without relatively tightly gathering the fingers.

SUMMARY OF THE INVENTION

Accordingly, it is the main object of this invention to provide a watch band which provides a ring of any desired peripheral length to fit around the wrist of any person with any desired tightness at every time of wearing and to allow it to be removed from the wrist readily by passing over the hand.

Another object of this invention is to provide a watch band which is fundamentally a piece of strip presenting two cooperating ends adapted to be engaged with each other to provide a ring but is usually kept in the form of a ring of variable peripheral length for the convenience of handling.

Still another object of this invention is to provide a watch band which provides a ring of any desired peripheral length wherein a clamp firmly holds the desired peripheral length of the ring without causing any damage to a band portion which is subject to firm clamping by the clamp.

Other objects and advantages of this invention will be apparent from the following descriptions of preferred embodiments of this invention made with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWING

In the accompanying drawing,

FIG. 1 is a perspective view of the clamp portion of a watch band, showing the clamped condition;

FIG. 2 is a longitudinal section of the clamp portion shown in FIG. 1;

FIG. 3 is a perspective view of the clamp portion shown in FIG. 1, but showing unclamped condition;

FIG. 4 is a longitudinal section of the clamp portion shown in FIG. 3;

FIG. 5 is an exploded perspective view of the clamp shown in the preceding figures;

FIG. 6 is a perspective view of the clamp portion wherein a modification is embodied as compared with the embodiment shown in FIGS. 1 to 5; and

FIG. 7 is an exploded perspective view of the clamp shown in FIG. 6 and 7.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the drawings, reference numerals 1, 1a designate a pair of cooperating band elements of non-extensible character, which are connected respectively at one end thereof to the frame of a watch (not shown), and are adapted at the other end to be clamped together by a clamp generally designated by reference numeral 2, wherein the band element 1a is pivotally connected with the clamp 2 and the band element 1 is passed through the clamp 2 to be held thereby. The clamp 2 includes a main frame 2a (see FIG. 5) which is formed of side plates 3, 3 and a bottom plate 4 connecting the side plates. At the side plates 3, 3 there are formed two pairs of openings 5, 5 and 6, 6. A pressing plate 7 having projections 7a, 7a at opposite sides thereof is held between the side plates 3, 3 with the projections 7a, 7a being engaged into the openings 5, 5. The openings 6, 6 carry a pin 8, on which is pivotally carried a clamping plate 9 having a width closely fitting the space between the side plates 3, 3.

The clamping plate 9 has at one end thereof a bearing groove 10 in which the pin 8 is received and a projection 11 adapted to push the upper side of the pressing plate 7 when the clamping plate 9 is turned to the clamping position as shown in FIGS. 1 and 2. At the other end of the clamping plate 9 is pivotally connected by a pin 13 a cover plate 12 of a moderately curved shape which follows over the similarly formed clamping plate 9. As best shown in FIG. 5, the cover plate 12 is formed with a folded end 14 slightly projecting beyond the bearing portion received by the pin 13, so that the folded end 14 provides a means to be caught by a nail when the clamp is unlatched. Adjacent the other end, where the cover plate 12 is pivotally connected by a pin 16 with the band element 1a, the cover plate 12 is formed a bent-out projection 15 which is adapted to engage with the end of the clamping plate 9 when the clamp is latched.

In operation, the band is applied around the wrist with the clamp being unlatched as shown in FIGS. 3 and 4. In this case, the free end of the band element 1 may be preliminarily engaged into the clamp 2 as shown in FIGS. 3 and 4 before the band is applied around the wrist by being passed over the band, or may be engaged into the clamp 2 after it has been wound around the wrist. After the band has been applied around the wrist and the free end of the band element 1 has been proceeded through the clamp 2 between the bottom plate 4 and the pressing plate 7 so much amount that the band will properly fit around the wrist, the clamping plate 9 is turned around the pin 8 anti-clockwise direction as seen in FIG. 4 until the cover plate 12 overlies onto the clamping plate 9 and the projection 15 engages with the pivoted end of the clamping plate 9. In this condition, the projection 11 of the clamping plate 9 presses the pressing plate 7 downward so that the latter would turn clockwise around a bearing axis defined by the engagement of the projections 7a, 7a with the openings 5, 5, whereby the free end of the pressing plate 7 is pressed against the band element

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1 laid on the bottom plate 4. In this case, the free end of the pressing plate 7 is elastically bent for a little amount so that the band element 1 is firmly held between the bottom plate 4 and the pressing plate 7 under an elastic force exerted by the pressing plate 7 which is formed as a spring plate. In this clamped condition, the projection 15 of the cover plate 12 engages with the pivoted end of the clamping plate 9 in a snapping manner, whereby the cover plate 12 and the cooperating clamping plate 9 are held in their clamping condition as shown in FIGS. 1 and 2.

In the modification shown in FIGS. 6 and 7, wherein the same reference numerals as in FIGS. 1 to 5 show the same elements or portions, the free end of the band element 1 is provided with means for provisionally preventing the removal thereof from the clamp 2. In other words, the free end of the band element 1 is provided with a channel-shaped end frame 17, in which is housed a spring plate 18 having a projecting portion 18a so that the projecting portion 18a normally protrudes through an opening 17a of the end frame 17. The height of the projecting portion 18a protruding above the surface of the end frame 17 is so designed that it normally engages with the edge of a notch 4a formed at the bottom plate 4. By the provision of these means, it is prevented that the free end of the band element 1 is unexpectedly removed from the clamp 2, whereby the ring of the band is broken and the band with the watch falls from the wrist.

When the free end of the band element 1 is to be removed from the clamp 2 to break the ring of the band, it is only required that the projecting portion 18a is slightly pushed down into the opening 17a by the tip of a nail or a finger until it goes under the edge of the notch 4a. Then, the free end of the band element is readily pulled out of the clamp 2. When the free end of the band element 1 is inserted into the clamp 2, it is not required that the projecting portion 18a is pushed down, because in this case the free end of the band element 1 provided with the projecting portion 18a can be readily introduced into a relatively wide space between

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the bottom plate 4 and the pivoted portion of the pressing plate 7, the space being gradually tapering toward the free end of the pressing plate 7.

I claim:

1. A watch band comprising a band element or elements adapted to carry a watch and present opposite free ends, and a clamp pivotally connected with one of said free ends and adapted to removably receive the other of said free end, characterized in that said clamp comprises two plate elements pivotably connected together, the opposite free ends of said pivotably connected plate elements being pivotably connected at one end with said one free end of said band element and pivotally connected at the other end with a main frame of said clamp, said main frame presenting a passage for said other free end of said band element, wherein said passage is defined by a bottom plate of said main frame and a pressing plate pivotably mounted on said frame, and wherein said pressing plate is urged toward said bottom plate by a projection provided at one of said two plate elements according to a rotation of said one plate element when said two plate elements are folded and overlaid onto said main frame when said clamp is brought into a clamping condition, said passage being formed with a converging taper extending toward the free end of said pressing plate to thereby bind said other free end of said band element to said main frame at any selected position relative to said main frame and said other free end of said band element being provided with a resiliently collapsible projection which normally prevents said free end from being passed through said passage wherein said resiliently collapsible projection is provided with a spring plate having a projecting portion protruding through an opening in an end frame of said band element.

2. A watch band according to claim 1 wherein said clamp includes snapping latch means for causing said two plate elements to be overlayed as aforesaid onto said main frame and to be held in their said folded condition.

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