United States Patent

Wiltgen

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[54] **JIG FOR WORKING ON WATCHBANDS**

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[52] **U.S. Cl.** **269/10,** 29/283, 81/6, 269/47, 269/287, 269/296

[51] **Int. Cl.**.....**B25b 1/20,** B23p 19/04, B23q 3/18

[58] **Field of Search** ...29/283; 81/6; 269/47, 48, 287, 269/288, 296, 9, 10; 206/45, 46 G, 75

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[57] **ABSTRACT**

A workpiece support including a generally horizontal upper surface. The support includes an integral vertically short cylindrical projection which extends above the upper surface and the projection has a pair of side-by-side wide and narrow upwardly opening slots or grooves formed therein with the opposite ends of the slots opening outwardly through opposite side portions of the cylindrical projection and the bottom wall surfaces of the slots coplanar with or spaced at least slightly above the upper surface of the support from which the projection extends. In addition, the bottom wall of each slot includes a vertically short upwardly projecting central rib which extends at least substantially the full length of the corresponding slot.

2 Claims, 3 Drawing Figures

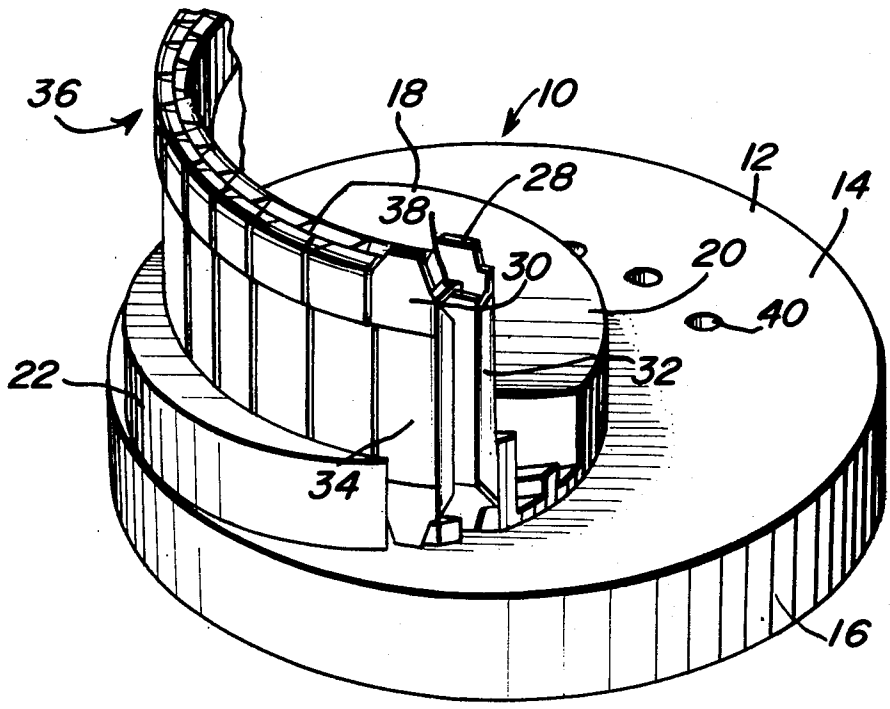


Fig. 1

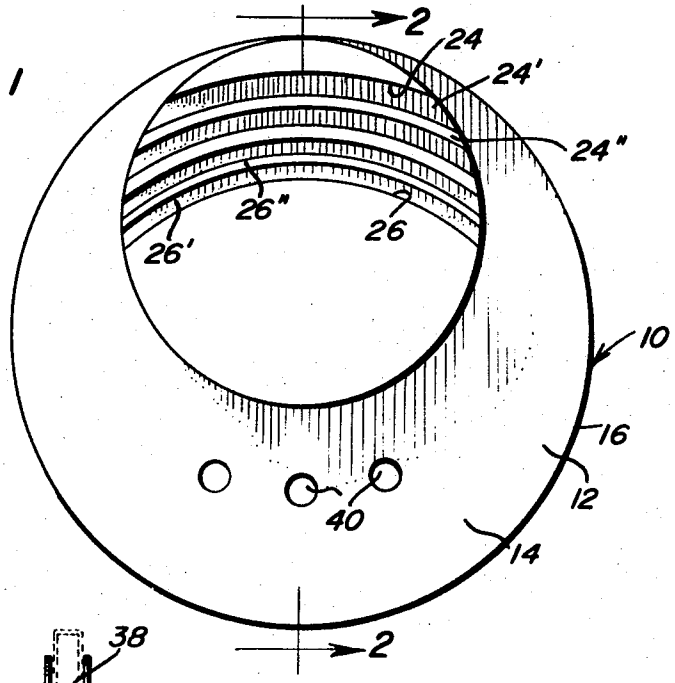


Fig. 2

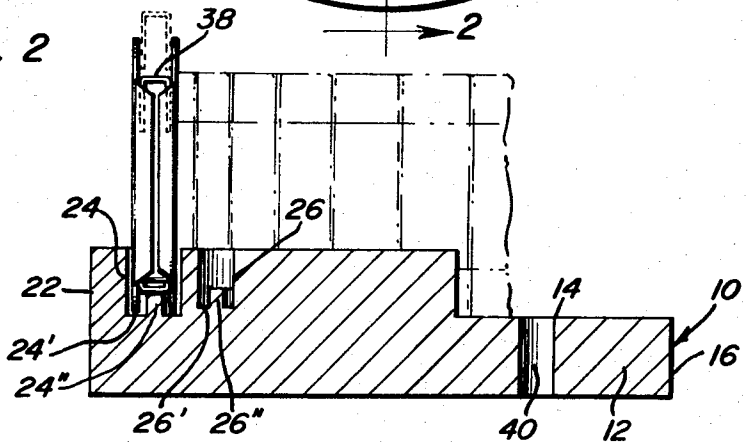
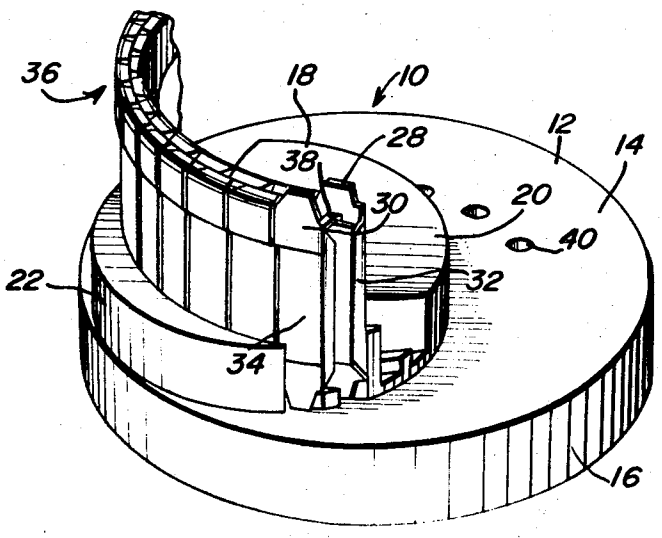


Fig. 3



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JIG FOR WORKING ON WATCHBANDS

The jig of the instant invention has been specifically designed for use by jewelers and other persons who may repair, shorten or lengthen watchbands and in particular watchbands of the type marketed under the trade name of Speidel and covered by U.S. Pat. No. 2,689,450.

These watchbands include inner and outer rows of transversely extending tubular links disposed in side-by-side relation with the links of the inner and outer rows disposed in relative staggered relation whereby each link of each row transversely overlaps the adjacent sides of a pair of adjacent links of the other row. The remote inner and outer walls of the inner and outer links include endwise extensions which are bent outwardly and inwardly, respectively, to close the ends of the links and these bent extensions serve as retainers for U-shaped connecting members whose legs are telescoped in adjacent sides of overlapped portions of inner and outer links whereby to connect the inner and outer rows of links and adjacent links of each row of links by the link of the other row disposed in overlapped engagement therewith.

When it is desired to break into an intermediate portion of a Speidel watchband, the aforementioned bent extensions of two or more adjacent links must be opened in order to enable the U-shaped connecting members to be withdrawn. If the watchband is to be shortened, one or more tubular links are removed and if the band is to be lengthened, one or more tubular links are inserted in the band. The jig of the instant invention provides a means whereby the watchband may be supported in a stationary manner after the desired tubular link wall extensions on one side of the band have been bent open and while that side of the band is in a downwardly facing position in order that the tubular link wall extensions on the other side of the band may be opened without deforming the previously opened wall extensions. In addition, after a watchband has been shortened or lengthened and before the link wall extensions on either side of the band have been bent back to the closed positions, the band is held by the jig in a stationary manner with the band disposed with one edge portion thereof uppermost and the lower edge portion of the band supported in a manner so that the corresponding opened tubular link wall extensions are not deformed during the process of closing the tubular link wall extensions on the upper side of the band.

The main object of this invention is to provide a jig for holding expansion-type watchbands while the latter are being repaired, shortened or lengthened.

Still another object of this invention is to provide a jig in accordance with the immediately preceding object and which will be operable to support a Speidel watchband on one edge after the bendable tabs along that edge have been swung to the open positions in order that the tabs along the other edge of the band may also be swung to the open positions without damaging the previously opened tabs.

Still another object of this invention is to provide a jig body including arcuate watchband section receiving slots having radii of curvature generally corresponding to the curvature of an expandable watchband when in an untensioned state.

A final object of this invention to be specifically enumerated herein is to provide a watchband holding jig in accordance with the preceding objects which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble-free in operation.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a top plan view of the jig of the instant invention;

FIG. 2 is a transverse vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of FIG. 1; and

FIG. 3 is a perspective view of the jig illustrating an expansion watchband section supported therefrom and with the upper and lower end tabs of both the inner and outer watchband links in the foreground bent to straightened positions.

Referring now more specifically to the drawings, the numeral **10** generally designates the jig of the instant invention which includes a generally cylindrical body **12** having a planar upper surface **14** and upstanding cylindrical base or side surfaces **16**. The body **12** includes an upstanding cylindrical boss or body portion **18** of smaller diameter than the body **12** and with one peripheral edge portion thereof coinciding with the corresponding peripheral side surface **16** of the body **12**. In this manner, the boss **18** is eccentrically disposed relative to the body **12**.

The boss **18** includes a generally planar horizontal upper surface **20** and upstanding cylindrical side surfaces **22**. Further, the jig **10** includes a first wide slot or groove **24** and a second narrow slot or groove **26** formed in the boss **18**. The slots or grooves **24** and **26** are arcuate and of approximately the small radius of curvature. Further, the opposite ends of the slots open outwardly through opposite sides of the boss. Also, it will be noted that the radii of curvature of the grooves **20** and **24** are spaced along a diameter of the body **12** toward the side of the body **12** remote from the side thereof upon which the boss **18** is formed. Still further, the bottom wall **24'** of the groove **24** is substantially coplanar with the upper surface **14** of the body **12** while the bottom wall **26'** of the groove **26** is disposed in a horizontal plane spaced slightly above the horizontal plane containing the upper surface **14** of the body **12**.

Each of the groves **24** and **26** includes an upstanding central rib projecting upwardly from its bottom wall and extending the entire length of the associated groove. The rib **24''** of the groove **24** is slightly wider than the upstanding rib **26''** disposed in the groove **26**.

The actual radial extent of the arcuate ribs **24** and **26** in relation to the radial extent of the corresponding slots will be determined, at least in part, by the thickness of the end tabs **28** and **30** of the inner and outer tubular links **32** and **34** of the watchband **36** to be shortened, lengthened or repaired.

The watchband **36** includes an inner row of side-by-side tubular links **32** and an outer row of tubular links **34** with adjacent links **32** and **34** staggered relative to each other. The band **36** further includes a plurality of U-shaped connecting members **38** whose legs are telescoped into the overlapped sides of the links **32** and **34** and retained in position by means of the extensions or tabs **30** and **38** when the latter are bent to the horizontal positions thereof illustrated in the background of FIG. **3**. However, when it is desired to remove one or more pairs of the links **32** and **34** in order to shorten the band **36** or to insert one or more pairs of links **32** and **34** in the band **36** in order to lengthen the latter, certain of the end tabs or extensions **28** and **30** must be bent from the closed positions thereof illustrated in the background of FIG. **3** to the open positions thereof illustrated at the foreground of FIG. **3** in order to enable the connecting U-shaped members **38** to be removed.

If a man's watchband such as that generally designated by the reference numeral **36** is to be lengthened, shortened or repaired, it is utilized in conjunction with the groove **24**. However, if the watchband to have work performed thereon is a thinner lady's watchband, it is used in conjunction with the groove **26**.

The watchband to be repaired is initially placed within the corresponding groove in the manner illustrated in FIGS. **2** and **3** of the drawings and the desired inner and outer tabs **28** and **30** may be bent to the open positions thereof illustrated in the foreground of FIG. **3** by utilizing a suitable handtool. Thereafter, the band **36** is inverted in the corresponding slot in a manner to position the opened tabs **28** and **30** on opposite sides of the corresponding rib. By thus positioning the band in an inverted position with the opened tabs **28** and **30** received on opposite sides of the corresponding rib, the upper surface of the rib supports the inverted band by the exposed U-shaped members and those tabs which still remain in the closed positions and with the lowermost tabs spaced above the bottom wall of the corresponding groove. Then, the tabs disposed along the upper marginal edge portion of the band corresponding to those tabs previously opened may also be opened. Thereafter, the desired number of tubular links may be added or subtracted from the band and the band may then be reinserted in the groove and have the uppermost opened tabs **28** and **30** bent back to the closed positions thereof after which the band is again inverted in order that the open tabs on the other side marginal edge portion thereof may be disposed uppermost and bent back to the closed positions thus completing the task of lengthening or shortening the watchband.

In some instances the transverse width of the ribs **24''** and **26''** will be increased, if the radial thickness of the associated watchband is somewhat greater and the thickness of the end tabs corresponding to the tabs **28** and **30** is relatively small. In addition, the cylindrical side surfaces **22** of the boss **18** disposed closest to the center of curvature of the side surfaces **16** of the body **12** may be used as rest surfaces against which a watchband may be placed with the lower longitudinal edge portion of the band resting flat upon the upper surface **14** of the body **12**. With the watchband thus positioned, the upper surface **14** defines an anvil and final bending of transversely opposite tabs **28** and **30** of the watchband may be accomplished by lightly tapping the upper edge portion of the band with an appropriate impact implement. Of course, an appropriate anvil member may be utilized on the upper marginal edge portion of a watchband thus positioned in order that the anvil member may be struck by the aforementioned impact tool in lieu of striking the watchband directly with the impact tool.

As pointed out hereinbefore, the jig **10** has been designed for primary use with Speidel watchbands. However, the jig **10** may of course be used in connection with the repair, shortening or lengthening of other types of watchbands. Further, the body **12** has a plurality of vertical bores **40** formed therethrough disposed outwardly of the boss **18** and which may be used to support a jeweler's stump from the jig **10**.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A workpiece support including a body portion having upstanding opposite side edges and an upper surface, an elongated arcuate groove formed in said body portion and opening endwise outwardly through said side edges and laterally upwardly through said upper surface throughout its entire length, said groove being of a width at least slightly greater than the thickness of an expandable watchband and of a depth at least slightly less than the width of an expandable watchband, said groove including a bottom wall provided with a central upstanding and longitudinally extending rib, said rib being spaced at least slightly from the opposite side walls of said groove dividing at least the bottom of said groove into spaced parallel groove segments, a base member from which said body portion is supported and including a generally flat or planar upper surface above which said body portion projects, the bottom walls of said groove segments being elevated at least to the elevation of the upper surface of said base member, said body portion including side wall surfaces projecting upwardly from said base including remote portions thereof defining said side edges.

2. The combination of claim **1** wherein said body portion includes a second groove formed therein opening laterally upwardly through said upper surface and endwise outwardly through said side edges and also including a central upstanding longitudinally extending rib, said second groove being of a depth and width slightly less than the depth and width of the first-mentioned groove.

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