

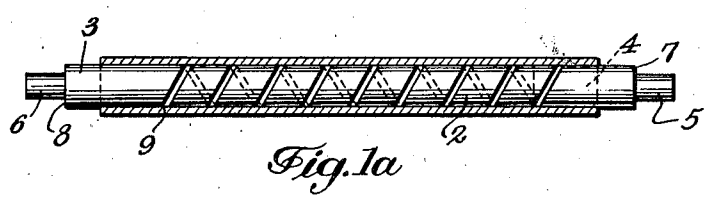
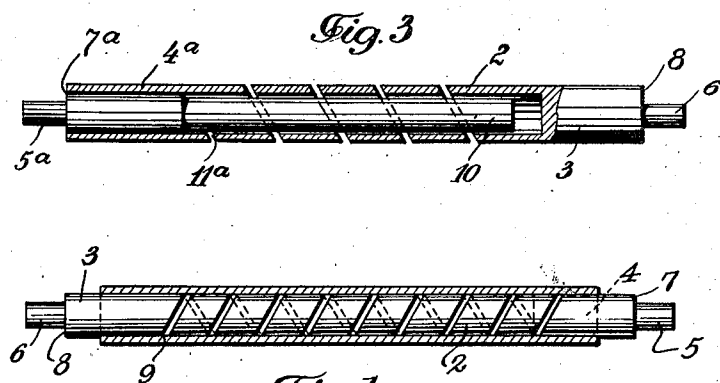
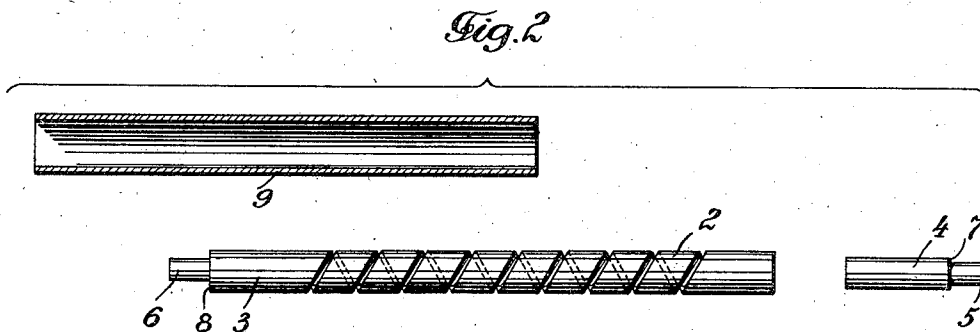
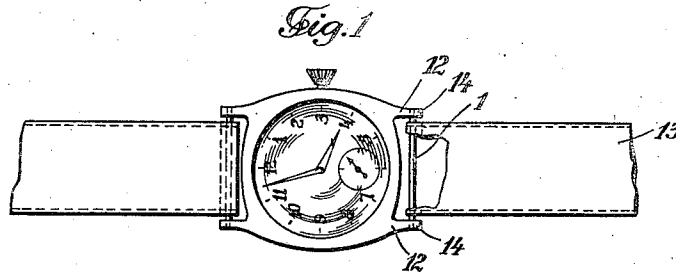
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SPRING BAR FOR WRIST WATCHES

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SPRING BAR FOR WRIST WATCHES

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4 Claims. (Cl. 24-265)

For the purpose of attaching straps to wrist watch cases and to renew these straps as conveniently as possible, it is customary to use spring bars. These spring bars usually consist of a tube or the like containing an ordinary coil spring bearing at each end against a plug projecting from the tube. The spring bar is passed through the loop of the strap and snapped into position between two lugs carried by the watch case.

The instant invention comprises, inter alia, a spring bar of improved and simplified construction and which can be manufactured and assembled more easily than spring bars hitherto in use. The invention will be fully understood and further objects thereof will appear as the following description is read in conjunction with the drawing in which—

Fig. 1 illustrates a wrist watch and attached spring bars;

Fig. 1A shows an enlarged view, partly in cross section, of a spring bar in accordance with the invention;

Fig. 2 is an exploded view of the spring bar illustrated in Fig. 1A, and

Fig. 3 shows an enlarged view partly in cross-section of an alternative embodiment of the invention.

As illustrated in the drawing, the spring bar 1 is substantially composed of a spirally cut-out tubular member 2 carrying on one end and preferably as an integral part thereof the plug 3 having pin 6 and shoulder 8. A plug 7 is provided at the other end of tubular member 2 having shoulder 7 and pin 5. The plug 4 is preferably positioned on the tubular member 2 by forcing the same into place, the differential between inner diameter of tubular member 2 and outer diameter of the plug 4 being preferably sufficiently small to permit this. The plug fitted tubular member is provided with means for imparting substantially rectilinear rigidity to said tubular member, i. e., a lengthwise rigidity without interfering with the compressability of the tubular member. The means for imparting substantially rectilinear rigidity to the tubular member may comprise, for instance, the substantially rigid tube 9 (Fig. 2) fitting over tubular member 2, permitting plugs 3 and 7 to project therefrom. Alternatively, the means for imparting substantially rectilinear rigidity to the tubular member may comprise a substantially rigid rod 10 (Fig. 3) extending inside the tubular member 2 and preferably attached to or as a constituent part of the plug 4a having shoulder 7a and pin 5a.

Instead of providing the plugs at each end of the spirally cut-out tubular member 2 with shoulders and pins fitting in holes or slots 14 of the lugs 12 of a watch case, the plugs may be provided with any other means suitably adapting the same to be carried by or between the spring bar lugs of a wrist watch.

In the practical use of the spring bar in accordance with the invention the same is passed through the loop of the watch strap 13 and snapped into position in the holes or slots 14 of the lugs 12 by the spring action of the spring bar which is slightly compressed while inserting the same between the lugs.

The spring bar in accordance with the instant invention lends itself to a particularly simplified method of production. In accordance with my preferred method constituting part of my invention, a rod is partly bored so as to obtain a tube having a closed end. The tube is thereupon spirally cut out and fitted at its open end with a plug adapted by suitable means, such as bead rings, to be snapped into place. The closed end and the plug are suitably worked to adapt the same to be carried by the spring bar lugs of a wrist watch as, for instance, by turning down their ends to form suitable pins and shoulders as herein set forth in accordance with the preferred construction of my new spring bar. It is of course possible to first provide the plug to be fitted onto the open end of the spirally cut out tubular member with the desired means to adapt the same to be carried by a spring bar lug and to fit the same as a finished unit onto the open end of the tubular member before or after the closed end thereof has been adapted to be carried by a spring bar lug of a wrist watch. The plug fitted tubular member is then provided with the shorter outer tube for imparting rigidity thereto. If the alternative means for imparting substantially rectilinear rigidity to the plug fitted, spirally cut out, tubular member, is used, I find it of advantage to choose a plug for the open end of the tubular member which carries thereon and preferably as an integral constituent part thereof a rod adapted to extend into the tubular member. In such case the rod should not extend beyond a point where it would interfere with the desired compressability of the spring bar.

The method in accordance with my invention lends itself to the simple and relatively inexpensive manufacture of spring bars in which the spring element is made of stainless steel. The use of stainless steel in a spring bar construction constitutes a desideratum, the realization of

which has been hitherto difficult to achieve by reason of the problems encountered and expense involved in the making of stainless steel springs of such small and relatively diminutive size as those required for spring bar construction.

The foregoing description is by way of illustration and not of limitation, and it is, therefore, my intention that the invention be limited only by the appended claims or their equivalents, in which I have endeavored to claim broadly all inherent novelty.

I claim:

1. A spring bar for wrist watches comprising a partially bored substantially spirally cut out rod forming a substantially tubular member having a substantially closed end, a plug carried by the open end of said tubular member and means adapted and positioned with respect to said tubular member to impart substantially rectilinear rigidity to said tubular member, said closed end and said plug being adapted to be carried by the spring bar lugs of a wrist watch.

2. A spring bar in accordance with claim 1 in

which said means for imparting substantially rectilinear rigidity to said tubular member comprises a substantially rigid member substantially surrounding said tubular member.

3. A spring bar in accordance with claim 1 in which said means for imparting substantially rectilinear rigidity to said tubular member comprises a substantially rigid member carried by said plug and extending inside said tubular member.

4. A spring bar for wrist watches comprising a partly bored rod, that portion of the rod having the bore therein being substantially spirally cut out to form a spirally cut out tube having a closed end, a plug carried by the open end of said tube, and an outer tube, substantially surrounding said spirally cut out tube, for imparting substantially rectilinear rigidity to said spirally cut out tube, said closed end and said plug projecting from said spirally cut out tube and being adapted to be carried by the spring bar lugs of a wrist watch.

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