Aug. 14, 1934. S. A. JOHNSON 1,970,041

BRACELET

Filed Jan. 16, 1934

Fig. 1.

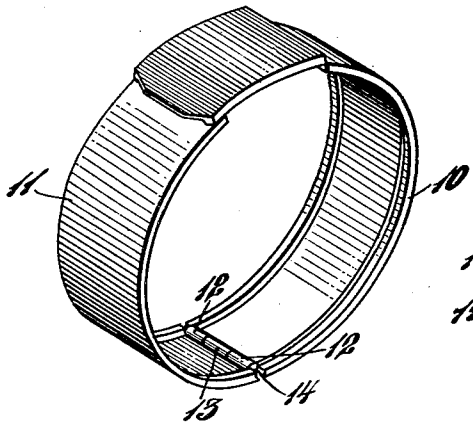


Fig. 2.

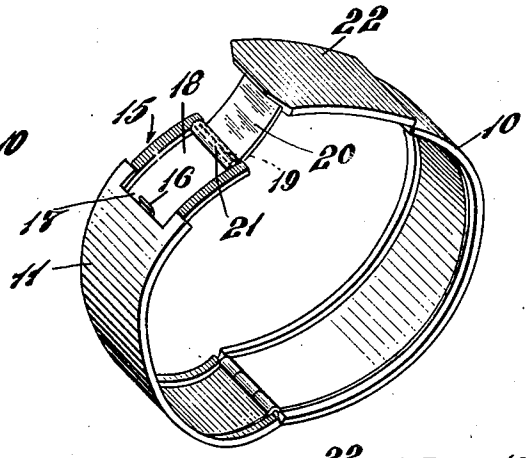


Fig. 3.

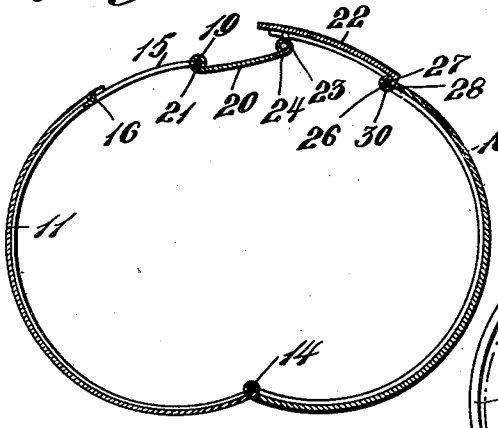


Fig. 4.

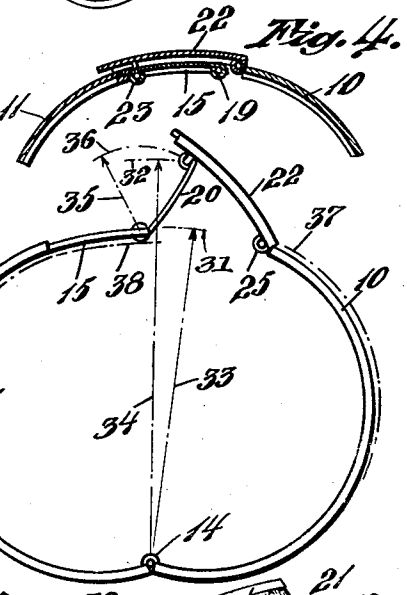


Fig. 8.

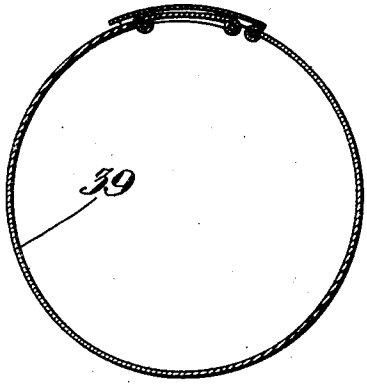


Fig. 5.

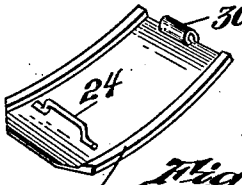


Fig. 6.

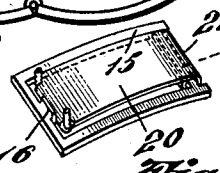


Fig. 7.

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UNITED STATES PATENT OFFICE

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BRACELET

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Application January 16, 1934, Serial No. 706,842

8 Claims. (Cl. 63—9)

This invention relates to a bracelet; and has for one of its objects the provision of a bracelet which may be enlarged or contracted without separation of the ends but rather by manipulation of the connected parts.

Another object of the invention is the provision of a bracelet formed of several rigid sections which when in closed position is substantially a rigid circlet but which may have its parts manipulated by an unfolding relation to enlarge the same and permit some flexibility for removing the same from the wrist over the hand of the wearer.

Another object of the invention is the provision of a simple and yet effective clasp whereby the folding parts may be retained in contracted position and the device when contracted held substantially rigid.

Another object of the invention is the relating of the parts as to length in such a manner that there will be a snap or spring action between two hingedly related members in the movement of the members from contracted to expanded position, which assists in enlarging or contracting the bracelet.

Another object of the invention is the provision of a member so arranged that it overlies and hides all of the working parts and is of such configuration as to form an ornamental part of the bracelet.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a perspective view of the bracelet in contracted position.

Fig. 2 is a perspective view of the bracelet in expanded position.

Fig. 3 is a sectional view of the bracelet such as shown in Fig. 2.

Fig. 4 is a fragmental view of the bracelet in contracted position, illustrating the manner in which the spring action is obtained between the parts of the construction.

Fig. 5 is a side elevation, illustrating the manner in which the spring action is obtained between the parts of the construction.

Fig. 6 is a perspective bottom view of one of the members.

Fig. 7 is a perspective view of two of the parts in folded position and showing the locking relation of the clasp for holding the parts in contracted position.

Fig. 8 is a sectional view of a bracelet of modified construction.

In the formation of a bracelet which is substantially rigid when in contracted position about the arm, it is desirable to provide some means permitting expansion of the encircling size of the bracelet without detachment of any of the parts for removing the same from the wrist over the hand of the wearer and in order that this may be accomplished, I have provided a plurality of foldable sections secured in the bracelet and which when in folded position causes the bracelet to be contracted in its size and substantially rigid and yet permits unfolding of the same for enlargement and some flexibility of the bracelet for withdrawing the same from the wrist over the hand of the wearer and in providing a construction of this character I have so arranged the foldable members which I use that there is a snap action something similar to a toggle joint action in either opening or closing the bracelet carrying it vigorously by a certain dead center position, and materially assisting in positioning the parts in their expanded or contracted position as desired; and the following is a more detailed description of the present embodiment of this invention illustrating the preferred means by which these advantageous results may be accomplished:—

With reference to the drawing, 10 designates one stiff metal section and 11 another stiff metal section. The section 10 has a pair of eyes 12 rolled thereon, while the section 11 has a single eye 13 rolled thereon positioned to be placed in aligned position between the eyes 12 for the reception of a pintle pin 14 thru the eye for hinging the sections 10 and 11 together.

The section 11 is provided with an extension 15 which I may form integral with the section 11 and a part thereof altho I frequently choose to form the extension 15 as a separate piece of harder material and suitably attach it to the end of the section 11, so that it will be rigid therewith, such as by solder. The portion 15 is provided with a catch 16 which projects into the notched end 17 of the bracelet, which may be cut out for the reception of another member as will more fully appear.

The portion 15 of the section 11 may be cut out as at 18 if desired, for a substantial length and this section provides an end bar 19 about which there is hinged a member 20 by the stock of the member being rolled about the bar 19, as at 21. This member 20 is hinged to an outer member 22 by the stock at the other end of the member

20 being rolled as at 23 about a bail 24 provided on the member 22. This member 22 is hinged to the member 10 by the provision of a rolled eye 30 on the member 22 and spaced eyes 25 rolled on the end of the section 10, thru which eyes there extends a pintle pin 26 for the purpose of hinging the member 22 to the section 10.

The member 22 is so positioned that its end 27 will abut the outer surface 28 of the end of the section 10 and limit the outward swinging movement of the member 22. In this manner the sections 10 and 11 in swinging about their hinge pintle 14 would normally cause the connecting points 19 and 24 of the member 20 to move toward each other about the pin 14 as a center and would cause these ends to approach each other along the arc of the circles, such as I have designated in dotted lines at 31 and 32. However, the length of the section 20 is such that it is greater than the distance between the arcs of these circles 31 and 32 swung from the radii 33 and 34 so that as the section 20 approaches a plane containing the pintle 14, the bar 19 and the bail 24, the member 20 swung on the radius 35 thru the arc 36 causes a movement outwardly of the bail 24 and a movement inwardly of the bar 19 so that the section 10 is flexed outwardly, as by dotted line 37, or put under spring tension and section 11 is flexed inwardly as by dotted line 38 and put under spring tension and the result is such that as the bracelet is moved either to contracted or expanded position there is a snap or sort of toggle action. In other words, the pressure which is needed to force the parts past this point of greatest tension being suddenly released allows the pressure to move the parts quickly to either contracted or expanded position depending upon the direction of force exerted.

The member 20 is also of such a length that when it swings about the bar 19 its rolled end 23 will be adjacent the catch 16 and by a slight pressure the encircling size of the bracelet will be enlarged sufficiently to permit the rolled end 23 to pass beneath the catch 16, such as illustrated in Fig. 4 to hold the parts in closed or locked position. And by reason of there being a slight tension tending to close the parts, this catch is firmly maintained in its position.

The member 22 may be of any desired length and suitably ornamented but is preferably of such a size that it will cover the operating parts which by reason of their function are not as ornamental and thus by such coverage enhance the appearance of the bracelet.

Fig. 8 illustrates the portion 15 above described as integral with the continuous band 39 of this material which is sufficiently thin to allow flexing and expansion for the parts such as heretofore described, which as will be seen from Fig. 8 simplifies the arrangement of the bracelet here desired, the catch and other parts being formed as shown.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A bracelet having a body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion said members being adapted to lie in overlying contracted position or to swing relatively thru substantially 180° to extended position, the outward swinging movement of at least one of said members being so limited and said body portion being sufficiently stiff and said members of such relative length that the swinging of said members from extended to overlying position or vice versa causes spring of the body portion of said bracelet and placing the same under tension.

2. A bracelet having a body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion, said members being adapted to be positioned in overlying contracted position or to swing relatively thru substantially 180° to extended position, the outward swinging movement of the overlying member being so limited and said body portion being sufficiently stiff and said members of such relative length so that the swinging of said members from extended to overlying position or vice versa causes spring of said body portion and placing the same under tension, whereby a movement of the body portion to swing said members causes a snap action past the position of maximum tension.

3. A bracelet comprising two substantially stiff body sections hinged together, a pair of foldable members hinged together and hinged to the other ends of the sections and movable from extended to contracted position for expanding or contracting the bracelet, the swinging movement of at least one of said members being limited to less than 90° and the distance between the hinges of one member being different than the distance between the hinges of the other member.

4. A bracelet comprising a pair of substantially stiff sections hinged together at one end, two foldable members hinged together and hinged to the other ends of the sections and foldable from extended to contracted position for expanding or contracting the bracelet, the distance between the hinges of one member being different than the distance between the hinges of the other member, the movement of said members from one to the other position causing flexure of said sections.

5. A bracelet having a substantially stiff body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion, the distance between the hinges of one member being different than the distance between the hinges of the other member, said members being adapted to lie in overlying contracted position or to swing relatively thru substantially 180° to extended position, and a catch to hold said members in folded position.

6. A bracelet having a substantially stiff body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion, said members being adapted to lie in overlying contracted position or to swing relatively thru substantially 180° to extended position, said body portion having an opening to receive one of said members overlying it and a catch to hold said members in folded position.

7. A bracelet having a substantially stiff body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion, the distance between the hinges of one member being different than the distance

between the hinges of the other member, said members being adapted to lie in overlying contracted position or to swing relatively thru substantially 180° to extended position, and a catch provided on said body portion and the hinge of one of said members being adapted to engage therewith to hold the members in folded position.

8. A bracelet having a substantially stiff body portion with ends, a pair of members hinged together with one member hinged to one end and the other member hinged to the other end of the body portion, said members being adapted to lie in overlying contracted position or to swing relatively thru substantially 180° to extended position, said body portion having an opening to receive one of said members overlying it and a catch on said body portion positioned to engage the portion projecting into said opening to hold said members in folded position.

SYLVESTER A. JOHNSON.