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BATHING BELT BUCKLE

Filed Dec. 28, 1926

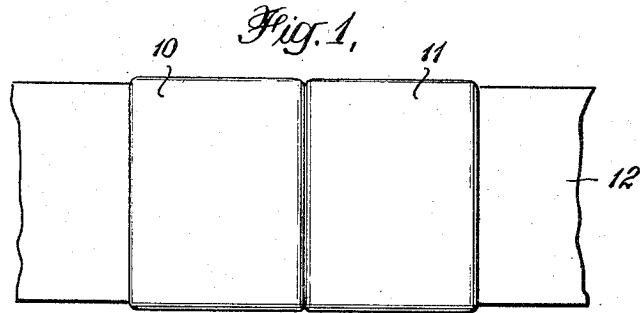
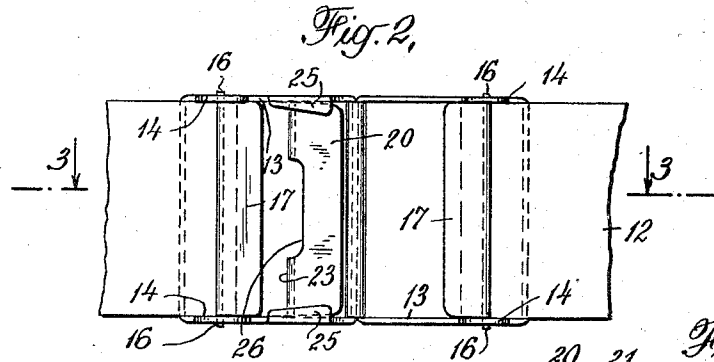


Fig. 4,

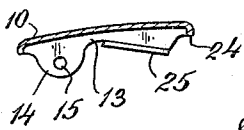


Fig. 3,

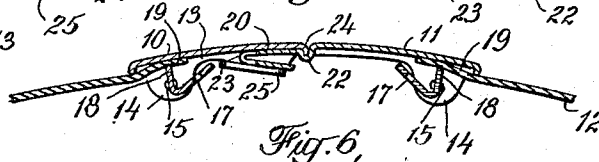


Fig. 5,

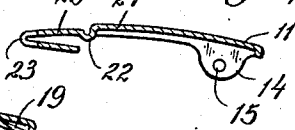
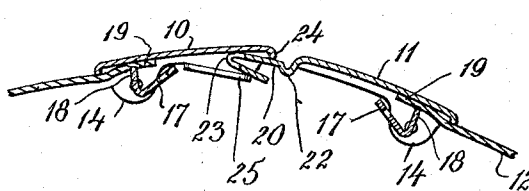


Fig. 6,



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BATHING-BELT BUCKLE.

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This invention relates to a belt buckle suitable particularly for use with a belt to be worn with a bathing suit. Buckles of this type ordinarily consist of a pair of members similar in general appearance, one of which is to be attached to each end of the belt, and the latter frequently has a take-up means by which the length of the belt may be adjusted, so that the buckle itself merely provides a means for holding the two ends of the belt together when the latter is in position on the wearer.

In bathing belt buckles as heretofore constructed it has been customary to employ a pair of buckle members each of which carries means by which it may be secured to one end of the belt, and these members have engaging parts, such as a hook and an eye opening into which the hook may be inserted for securing the members together to hold the belt in position. A buckle constructed in this manner is not satisfactory for numerous reasons, one reason being that the engaging members are only effective to hold the parts of the buckle together when the belt is worn rather tight, and as some bathers prefer that the belt should be loose, the engaging members in this type of belt frequently come apart and thus the belt is likely to be lost. Also, as usually constructed, a buckle of this type does not have an attractive appearance because the hook and eye have a loose engagement so that the parts of the buckle partially separate and the buckle gaps to a considerable extent.

The object of the present invention is to provide a belt buckle made up of a pair of cooperating members together forming the buckle and provided with novel attaching means by which the two members may be secured together. This attaching means includes locking parts which are effective to hold the members securely together, regardless of whether the belt is worn tight or loose, and the members are likewise provided with friction devices which resist the movement of the locking parts both into and out of locking position and cooperate to render the locking parts effective after they are in engagement. The new buckle is thus constructed so that the two parts may be readily secured together or separated, and when secured together the parts are held firmly in fixed position so that the two members can-

not separate even slightly, thus destroying the attractive appearance of the buckle. Also, the new buckle is of simple construction so that it may be manufactured rapidly and at a low cost.

The buckle preferably includes a pair of plate members of substantially the same width as the belt, each of which has means for securing it to one end of the belt and plain surfaces which may be ornamented in any desired way. One plate member has a spring leaf extension at one end separated from the main body thereof by a recess which extends transverse to the plate while the other member is provided with a transverse flange along one edge which is adapted to be inserted in the recess in the other member. The second member also has means in the form of tongues extending from its rear surface in which the spring leaf extension is received when the members are moved together in the operation of inserting the flange in the recess. In this movement, the flange bears against the face of the extension and the tongues on the rear face of the plate which carries the flange, press against the extension so as to flex it. Thus resistance is offered to that movement of the two buckle members which is necessary for attaching them together or separating them, and after they are in attached position with the flange on one member received in the recess in the other, the tongues and the spring extension cooperate to prevent any accidental movement which would result in the disengagement of the flange from the recess. With this construction, the buckle members may be readily separated by the exertion of a slight force properly applied, but when secured together they are locked in position so that they cannot accidentally come apart. The locking means which is wholly concealed from view furthermore holds the two members against a slight separating movement so that the surfaces of the two members may form a substantially continuous plate in which there are no gaps, thus improving the appearance of the buckle. In addition, the arrangement of the several parts is such that the movement of the parts to cause their separation includes not only a movement in one plane, but a slight bending movement, and this bending operation is the one that would naturally be adopted by the wearer in effect-

ing. the separation. Consequently, the buckle is easily manipulated either to secure its parts together, or to open the belt, but accidental separation of the parts is impossible.

For a better understanding of the invention, reference may be had to the accompanying drawings, in which

Fig. 1 is a face view of a portion of the belt, showing the buckle in place and with its members attached,

Fig. 2 is a rear face view corresponding to Fig. 1,

Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 2,

Figs. 4 and 5 are sectional views on the same section as Fig. 3, but showing the two buckle members separated, and

Fig. 6 is a view similar to Fig. 3, but showing the buckle members partly separated.

With reference now to the drawings, the buckle comprises a pair of plate members 10 and 11 having generally similar dimensions and a similar outward appearance, although these members are slightly different in construction. These parts may be made of any suitable material and are ordinarily made of sheet metal shaped by various common operations. Each member is secured to one end of a belt 12 which in the case of a bathing belt, is ordinarily of some suitable textile fabric, rubber, elastic fabric, or the like.

In the forming operation each member has its lateral margins bent rearwardly, as at 13, to give a finish to the member and at one point in each lateral edge there are provided ears 14 having an opening 15 in which may be mounted the pins 16 of a ratchet bar by which the belt end is secured to the member. This ratchet bar is of ordinary construction and includes a plate 17 by which it may be manipulated and another plate 18 extending at an angle thereto and having teeth formed in its edge, the ratchet bar being so formed and mounted in position that it may be swung to bring the plate 18 parallel to the face of the plate member, thus permitting the end 19 of the belt to be inserted between the face and the axis of the bar. Then the bar is swung to the position illustrated in Fig. 3, where the toothed member 18 grips the belt end and holds it securely against the rear face of the plate. This ratchet bar provides a convenient means for securing each plate member to the belt end, although other means may be adopted for the purpose if desired.

One of the plate members is provided with an extending portion 20 connected to the main body 21 of the plate member but separated therefrom by means of an indentation 22 forming a transverse channel or recess extending from one edge of the plate member to the other and across the main

axis of the belt. This extension 20 is folded back upon itself as at 23, thus providing a spring leaf, the two parts of which may be collapsed by the application of force properly directed. The other plate member is provided with a marginal flange 24 at its free end, this flange extending the entire width of the member rearwardly from the outer face of the member. This flange is adapted to be received in the recess 22 and when it lies in the recess the faces of the two plate members merge smoothly so as to provide a smooth surface of a slight curvature, as shown in Fig. 3. At the rear of the flange 24 means are provided for receiving the spring leaf extension 20, these means preferably including tongues 25 formed as integral parts of the plate member and partially overhanging its rear face. These tongues are in a position such that the spring extension 20 may be inserted between the front plate 10 and the tongues 25 and when the extension is fully inserted between the tongues and front plate 10, with the flange 24 entering the recess 22, no collapsing pressure is applied on the extension by the tongues. When the plate members are to be secured together for closing the belt, the first operation is illustrated in Fig. 6. Here the plate member 11 bearing the extension 20 is moved toward the plate member 10 and the extension is passed beneath the flange 24 and its end inserted between the tongues 25. The flange 24 bears on the upper surface of the extension and as the two members are moved toward each other, the pressure of the flange 24 forces the leaf portion of the extension against the tongues 25 and friction between the parts resists any further movement of the members toward each other to engaged position. After this friction is overcome, the extension is slightly collapsed and the flange rides over the upper surface of the extension and eventually snaps into the recess 22. The parts now lie in the position shown in Fig. 3, with the extension 20 practically entirely received in the tongues 25 and with the flange 24 entering the recess 22. The engagement of the extension with the tongues prevents any accidental movement of the two members which would free the flange from the recess and thus renders the flange and recess by their engagement effective to lock the two members together.

When the belt is to be opened and the members separated, the wearer grasps the plate members, one in the fingers of each hand, and bends them about an axis transverse to the plane of the members, at the same time exerting a slight separating pull. This movement causes the flange to ride up out of the recess onto the flat surface of the extension, and this movement is necessitated because it requires that the extension should be partly collapsed because of the construc-

tion previously described. Once the flange is clear of the recess, the two buckle members may be separated by further application of force, and the movement is somewhat facilitated because the extension has a wedge-shape and in the separating movement of the parts the flange is riding down an inclined surface.

With the construction described, it will be apparent that the two members may be readily secured together or detached, and when attached to each other, they are locked against accidental movement. This locking is effected by means of the flange and recess and as the recess may be of a width just sufficient to receive the flange, the parts when in use cannot gap or otherwise spread apart, regardless of whether the belt is worn tight or loose, the locking action of the parts of the members being wholly independent of the tension of the belt. By making the recess of a width just sufficient to receive the flange, the two plate members may be held together so as to give a practically smooth, uninterrupted outer surface, as illustrated in Fig. 1, the line at the point where one member ends and the other begins being almost unnoticeable. The spring extension may be simply in the form of a leaf bent back upon itself to a V-section, but in some instances, where the members are made of a metal of a substantial thickness, the extension would be quite stiff, and its resistance to collapse would be unnecessarily great. To overcome this, the extension when the members are made of a heavy metal may have a portion removed therefrom midway of its ends, the removal of this metal reducing the effectiveness of the extension as a spring and permitting the ready operation of the buckle members. It will further be observed that the buckle is of an inexpensive construction, due to the fact that the parts, with the exception of the ratchet bars, may be made of single pieces of sheet metal which may be stamped to appropriate form and then the parts later bent to their proper positions. The folded leaf extension is so formed that it will continue effective indefinitely because pressure is applied to both portions thereof during the attachment and detachment of the members.

I claim:

1. A belt buckle comprising a pair of plates, each of which is to be attached to one end of the belt, a flange on the first plate adapted to be introduced into a recess in the second for locking the plates together, an extension on the recessed plate over which the flange moves to enter the recess, and means on the first plate for receiving the extension between said means and body of said first plate as the plates are moved toward each other, the said means and extension cooperating to resist assembly and

separation of the plates and also to maintain the flange and recess effective for locking purposes.

2. A belt buckle comprising a pair of plates, each of which is to be attached to one end of the belt, a flange at the edge of one plate adapted to be inserted in a recess in the second plate, an extension from the second plate projecting beyond the recess, over which the flange moves to enter the recess, this extension having a flexible portion, and means on the first plate for receiving the extension between said means and body of said first plate when the plates lie with the flange and recess engaged, the said means flexing the flexible portion of the extension as the flange is moved over the extension and cooperating with the extension to maintain the flange and recess in engagement.

3. A belt buckle comprising a pair of plates each of which is to be attached to one end of the belt, an extension with a spring leaf formed on one plate with a locking channel between the extension and the remainder of the plate, a flange formed at one edge of the second plate adapted to be engaged with the channel, and means on the second plate for receiving the extension between said means and body of said second plate when the plates are moved to engage the flange in the channel, the said means operating to flex the leaf portion of the extension as the flange is moved toward and away from the recess.

4. A belt buckle comprising a pair of plates, each of which carries means at one end for attachment to one end of the belt, a leaf extension formed at the other end of one plate having opposite walls capable of being collapsed, a groove separating the extension from the main body of the plate, a flange disposed at the edge of the second plate adapted to be forced over the extension to enter the groove, and means attached to the plate adjacent the flange for receiving the extension between said means and body of said second plate when the plates are moved to insert the flange in the groove, the said means being arranged to exert pressure on the extension to collapse the latter as the flange is moving over the extension.

5. A belt buckle comprising a pair of plates, each of which carries means at one end for attachment to one end of the belt, a doubled spring extension disposed at the free edge of one plate and separated therefrom by a groove extending transverse to the plate, a flange formed at the free edge of the other plate and extending transverse thereto, this flange being adapted to enter the groove, and a pair of tongues formed on the second plate at one side of the flange, these tongues being adapted to receive the extension between said tongues and body of

said second plate as the plates are moved to insert the flange into the groove, the tongues and the flange bearing on opposite sides of the extension to collapse the latter during the approaching and separating movement of the plates.

6. A belt buckle comprising a pair of plates, each of which carries means for attachment to one end of the belt, an extension from one end of the first plate separated from the main body of the plate by a transverse groove, a transverse flange on the second plate adapted to enter the groove to lock the plates together, and tongues formed on the rear face of the second plate behind the flange for receiving the extension between said tongues and body of said second plate, the tongues and flange cooperating to collapse the extension as the plates are being moved together or apart, and the tongues further cooperating with the extension when the flange enters the groove to prevent disengagement of the flange therefrom.

7. A belt buckle comprising a pair of plates, each of which carries means for attachment to one end of the belt, an extension from the free edge of one plate separated from the plate by a groove, this extension being doubled upon itself to provide a pair of separated walls, a flange formed on the free edge of the second plate and adapted to enter the groove of the first plate to lock the plates together, and a pair of tongues, one at each side of the second plate, and with the said plate forming a socket for the extension on the first plate, this socket being in part defined by the flange and being of less depth than the extension whereby the tongues and flange cooperate to collapse the extension as the plates are moved together to insert the flange in the groove and moved apart to release the plates from each other.

8. A belt buckle comprising a pair of plates, each of which is adapted to be attached to one end of the belt with one end of each plate free, a locking device at the free end of one plate, a locking device adjacent the free end of the second plate, these

devices being adapted for engagement to close the belt, a holding element at the free end of the second plate, and a cooperating holding element adjacent the free end of the first plate, these holding elements being adapted for engagement to resist the engagement and disengagement of the locking devices and also cooperating to hold the plates in a relation in which the locking devices are effective.

9. A belt buckle comprising a pair of plates each of which is adapted to be attached to one end of the belt with one end of each plate free, a locking device at the free end of one plate, a locking device adjacent the free end of the second plate, these devices being adapted for engagement to close the belt, a holding element at the free end of the second plate, and a cooperating holding element adjacent the free end of the first plate, the second holding element being adapted to receive the first holding element and cooperating to resist their assembly and separation, the holding elements further being arranged in assembled relation to hold the plates in relative positions in which the locking means are effective.

10. A belt buckle comprising a pair of plates, each of which is adapted to be attached to one end of the belt with one end of each plate free, a locking member at the free end of one plate and a recess adjacent the free end of the other plate for receiving the said locking member, these parts, when engaged, locking the plates together, a holding element at the free end of the second plate, and a cooperating holding element adjacent the free end of the first plate, these elements being engageable one within the other as the plates are moved together in a direction to cause engagement of the locking parts, the said elements resisting the engagement and disengagement of the locking parts and cooperating when engaged to render the locking parts effective.

In testimony whereof I affix my signature.

JOHN B. FREYSINGER.