Sept. 12, 1939. V. T. SURROWS 2,172,525

JEWELRY CHAIN

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Fig. 1.

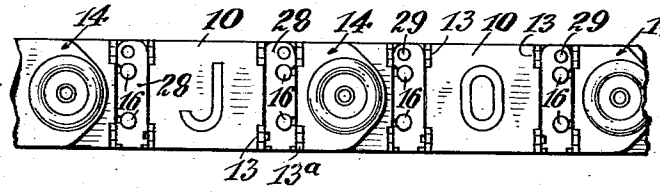


Fig. 2.

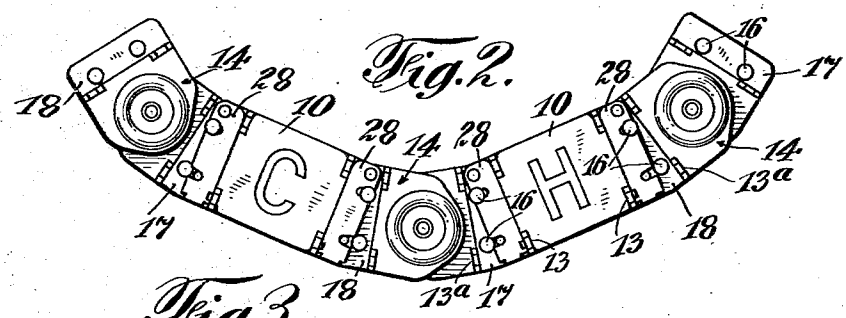


Fig. 3.

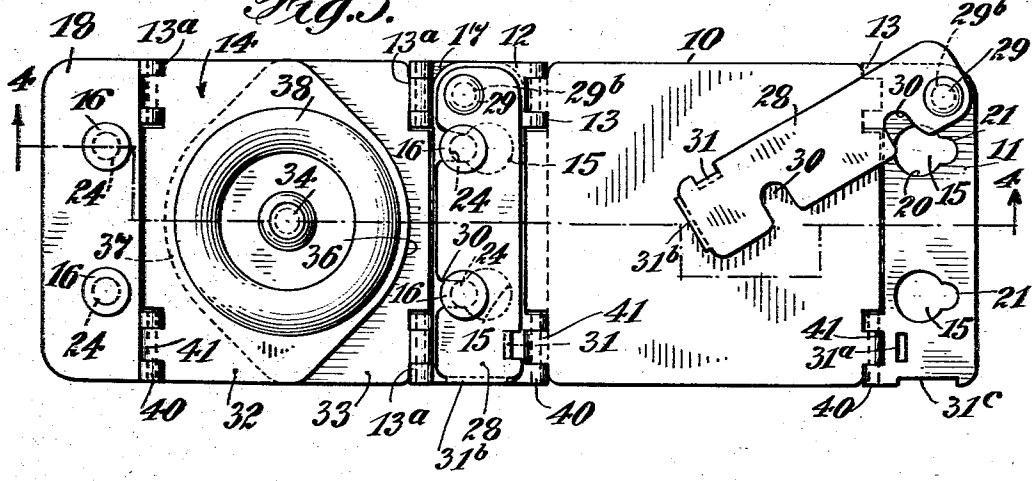


Fig. 4.

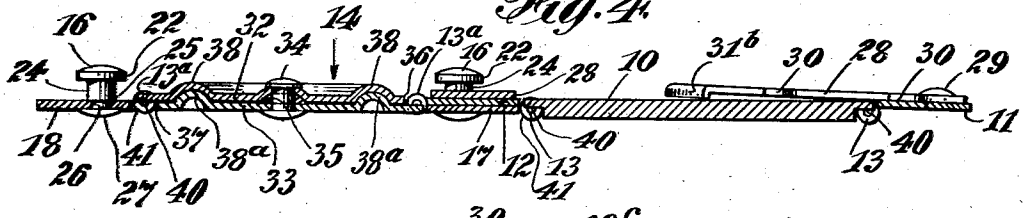
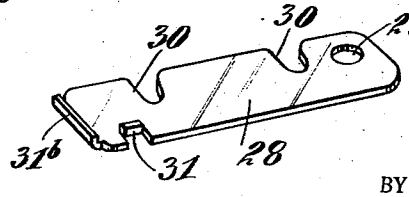


Fig. 5.



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Fig. 6.

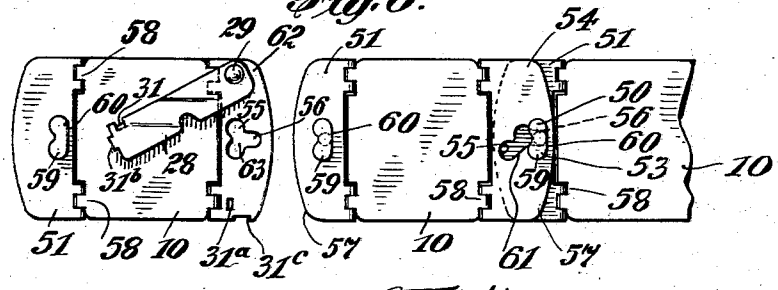


Fig. 7.

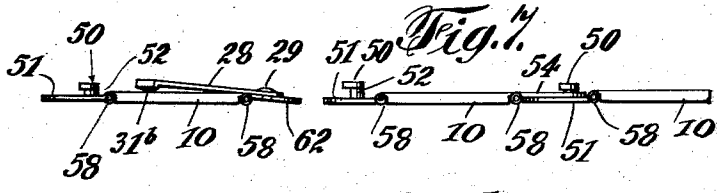


Fig. 8.

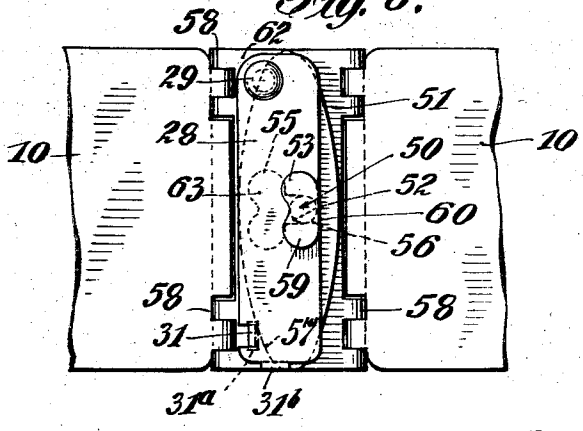


Fig. 9.

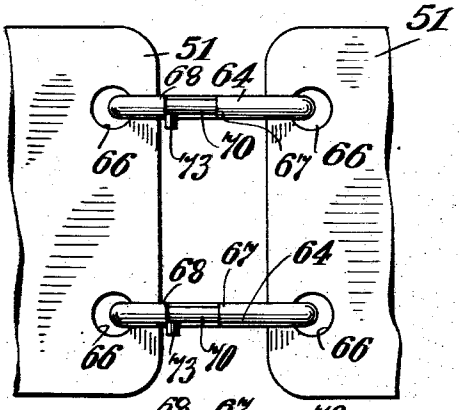
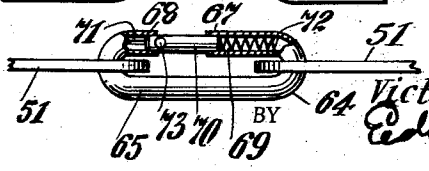


Fig. 10.



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UNITED STATES PATENT OFFICE

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JEWELRY CHAIN

Victor T. Surrows, Brooklyn, N. Y.

Application May 27, 1938, Serial No. 210,306

13 Claims. (Cl. 59—80)

This invention relates to jewelry, and is herein illustrated as embodied in a bracelet which may be altered at will without using any special or other tools and without the need of going to an expert craftsman.

Chain or link bracelets, and other analogous jewelry as hitherto made, have usually required adjusting by skilled craftsmen for length, to fit the wrist of the individual and for other purposes. One purpose, for example, was to provide a bracelet which carried on its individual links the letters which made up the owner's name or the owner's initials. Another adjustment which was often desired, but which also required the services of a skilled craftsman, was the conversion of a bracelet into a necklace.

Such devices as may hitherto have been attempted to be used for such purposes with a view to eliminating the necessity of employing the services of a skilled craftsman, seem not to have met the requirements of commercial limitations. Apparently their designs were such that they could not be made rugged enough to meet the strains of practical use without being cumbersome, or were not dependably secure when assembled, were not sufficiently comfortable to wear, or were too complicated in construction or had loose and easily lost parts, or required special separate tools for their adjustment, or were otherwise impractical.

According to the present invention these and other difficulties and objections are overcome and a simple, strong device is provided, cheap to construct, easy to manipulate and adjust as desired by the owner himself without tools or a jeweler's assistance, with ready flexibility in several directions, and of self contained individually complete units which may be made of precious or other metals or materials and assembled or dissembled by almost any user, to comprise a variety of bracelets, necklaces, anklets, belts, watch chains, etc.

Other features and advantages will hereinafter appear.

In the accompanying drawings,

Figure 1 shows fragmentarily one form of bracelet embodying the present invention.

Figure 2 shows fragmentarily how that form may be further adjusted to form a necklace.

Figure 3 shows a small portion on a larger scale.

Figure 4 shows the same parts in side view partly in section, on line 4—4 of Fig. 3.

Figure 5 is a perspective view of a catch.

Figure 6 is a face view of part of a modification, showing a modification at the ends.

Figure 7 is an edge view of the same.

Figure 8 shows the two parts of Figure 7 locked together.

Figure 9 is a face view of a modification.

Figure 10 is a side view of the same, partly in section.

The bracelet illustrated in Figures 1 to 5 includes a unit body 10, provided with two flaps 11 and 12, connected to the body 10 by suitable hinges 13.

In the form shown the unit body 10 is adapted to be connected at will, through either flap 11 or 12, to a connecting unit body 14. For this purpose the body flaps 11 and 12 are each shown as provided with slots 15 which are shown as adapted to be engaged by headed lugs 16 on flaps 17 and 18, which are shown as like the flaps 11 and 12, and are also shown as connected by hinges 13a to the connecting unit body 14.

In the form shown the slots 15 are formed with enlarged ends 20 toward the body 10 and with narrower extensions 21 extending outwardly, so that the enlarged heads 22 of lugs 16 may slide through the openings 20 which they fit rather closely, and then the narrower round shanks 24 may slide out toward the narrower ends 21 of the slots, thus, when locked in this position in the manner hereinafter made to appear, securely though loosely holding the flaps 11 and 18, or 12 and 17 against each other.

In the form shown the lugs 16 are formed with shoulders 25 which are adapted to rest upon the flap 18 and with extensions 26 which project through openings in the flap 18 and are then headed over at 27 on the back of the flap.

The enlarged heads 22 preferably fit fairly loosely, to allow a little play, on the surface of the flap 11 or 12.

To prevent any accidental disengagement of the flap 17 from the flap 12 which would cause a separation of the unit and connecting unit, there is shown a catch or keeper 28 in the form of a broad spring, strip or blade pivoted on the flaps 11 and 12 by a headed over lug 29 the shank of which 29b passes through a hole in the keeper 29c as particularly shown in Figure 4, so as to lie flat on and be held closely against the surface of the flap. The keeper 28 is shown in Figure 5 as adapted to lie with one edge 30 cut away in a position and shape corresponding to the narrower extensions 21 over which the blade of the keeper fits, so that when said keeper is in "locked" position it covers the enlarged ends

20 of the slots 15, with the enlarged heads 22 resting upon the blade of the keeper which in turn rests on the flap, and the blade of the keeper thus, in this position, holds the lugs 16 in position in the narrower extensions 21 of the slots 15, and prevents them from sliding out of the narrow extensions 21. The blade of the keeper is shown as provided with a detent 31 lying when in "locked" position in a depression or hole 31*a* in the face of the flap 11, and with a small part of its end edge turned down at 31*b* to fit in cut 31*c* in the flap 11, providing an additional hold, and also providing a convenient object for a finger nail to catch in lifting the catch or keeper to free it.

The flap 12 may be provided with one or more similar slots 15 and a similar keeper 28.

One of the units, such as the connecting unit 14 may be so built that its flaps 17 and 18 may turn in their own plane as well as on the hinges 13*a*. For this purpose the unit 14 is shown as built of two parts, an upper part 32 and a lower part 33, pivoted together at 34, and separated a little by a washer or bearing 35. The upper part 32 may terminate in a curve 36, and the lower part 33 may terminate in a curve 37 so that each part turns on the other upon the washer or bearing and over a surface protected against scratches and adhering dirt.

In the form shown the curves 36 and 37 form a part of the outer edges of annular ribs 38, and the opposing face of the adjacent part 32 or 33 is correspondingly ribbed 38*a* so as to form annular ribs which may take part of the pull of the parts 32 and 33 when the whole bracelet or chain is strained, but which allow free turning of the upper part 32 upon the lower part 33.

When the user desires to arrange the links as a necklace, only one lug 16 of the two on a flap may, if desired, be engaged with its slot 15, as is illustrated in Figure 2, thus making available still more flexibility in the assembly of units and connecting units.

As is seen in Figure 4, the scratching of the face of a unit 10 is avoided by turning the flap 11 down on its hinge 13 so as to carry the catch or keeper 28 free of the surface of the unit 10.

The hinge 13 shown in Figure 3, includes a pintle 40 engaged by integral hollow extensions 41 of the units 10 and 14, and the extensions lie within the edges of the units.

In the form of the invention shown in Figures 6, 7, and 8 the lugs 50 are shown as having heads 53 elongated transversely of the flaps 51 which carry them by their reduced shanks 52. In the form shown the heads are inserted through correspondingly elongated shaped openings 55 in the upper flaps 54, said openings, except at the ends of a necklace or bracelet, being set at an angle to the normal position of the heads 53, as pictured in the right unit of Figure 6, so that when the bracelet or necklace is assembled the shanks 52 lie at one end 56 of the elongated openings 55. As a result the units cannot become disengaged by any ordinary or probable twisting of the units.

The upper flaps 54 are cut away at the corners 57 so they turn without striking the hinges 58, and the lower flaps are similarly cut away.

In the form shown, the heads 53 of the lugs 50 include enlarged ends 59 with a tangential flat line 60 joining them on one side, thus making the opening terminate in a correspondingly flat line 61. (Figure 6.)

The end top flap 62 may be provided with an opening 63 which aligns with its corresponding head 53 on its flap 51, and, to prevent accidental disengagement, there may be provided a keeper 28, provided with detent 31 fitting into a hole 31*a* and with a turned down end 31*b* to fit in a cut 31*c*.

In the form of the invention shown in Figures 9 and 10 the units or flaps of units 51 may be identical and may be held together by links 64, preferably elongated.

Each link includes a solid bar 65, bent at each end to pass loosely through openings 66 in the respective units or flaps of units so that the ends 67, 68 of the bar 65 face each other.

The end 67 is hollow for a considerable length and in its hollow 69 slides a bar 70 which seats itself in a shallow opening 71 in the end 68 and is held in that opening by a spring 72 which presses the bar 70 outwardly until both its ends are supported in the openings 69 and 71, but the bar 70 may be pressed back by a small thumbpiece 73 to provide an opening which permits the units or flaps of units 51 to be passed through the opening and free the plates or catch them together as the case may be.

The two bent bars 65 tend to hold the units or flaps of units 51, of the necklace or bracelet aligned but free to bend around the wrist or neck.

It will be noted that the unit or other bodies 10 are well adapted to bear different stone, metal or other mountings fixed to them, or to be inscribed with different figures or letters of the alphabet, thus enabling the owner of the bracelet at will to reassemble units and connecting units, insert new ones, or to spell out any desired proper name or sentiment within the limits of length of the bracelet or necklace chain.

Having thus described certain embodiments of the invention, what I claim is:

1. A chain including units having bodies, a flap on a unit including a slot having a wide opening and a narrow extension, and a flap on another unit including a lug having an enlarged head adapted to pass through the wide opening but not pass the narrow extension and a shank adapted to permit the lug to slide well within the narrow extension so that the head holds the links together.

2. A chain including a unit having a body, a flap on a unit including a slot having a wide opening and a narrow extension, another link having a lug with an enlarged head adapted to pass through the wide opening but not pass the narrow extension, a shank for the lug adapted to slide well within the narrow extension so that the head holds the links together when the shank lies in the narrow extension, a second flap on one link, a separate part of that link carrying the second flap, means whereby the link and its part may rotate on each other transverse to the turning on the hinge and a second connecting element on the second flap.

3. A chain including links having bodies, connecting units for the bodies including two pivoted parts adapted to rotate upon each other face to face, and means for detachably attaching each part to an adjacent body so that the bodies may swing relative to each other.

4. A chain including links having bodies, connecting units for the bodies including two pivoted parts adapted to rotate upon each other face to face, a headed lug on each part, and slots in the bodies having enlarged ends adapted to receive the heads and to hold the bodies by the slots.

5. A chain including links having bodies con-

taining slots, connecting units for the bodies, including two pivoted parts adapted to rotate upon each other face to face, a pair of lugs on each part adapted to fit in the slots in the bodies, and heads on the lugs adapted to pass through enlarged openings at the ends of the slots and to grip the bodies at the other parts of the slots.

6. A chain including unit bodies and connecting units, elements movable upon the connecting units to engage openings in the bodies, and keepers adapted to lock the elements against disengagement.

7. A chain connecting unit including a lug adapted to fit an opening in another unit, a head on the lug adapted to pass an enlargement in the opening and to hold at other parts of the opening, and a spring keeper adapted to lie against the lug and also engage the body of the unit and positively hold the lug.

8. A chain including links having openings, bodies forming parts of connecting devices for the links, parts connected to the bodies but slidable on the bodies to one position to permit assembling of the chain and slidable to another position to hold the chain assembled.

9. A chain including links having openings, rings having openings and adapted to pass through the link openings to unite links, and elements connected to the rings adapted to stretch across the ring openings to close them.

10. A chain including links having openings, rings having openings adapted to pass through the link openings to unite links, and slides sliding on the rings adapted to close their openings.

11. A chain including links having openings, rings having openings adapted to pass through the link openings to unite links, and spring-pressed slides sliding on the rings adapted to close their openings.

12. A chain including bodies and extensions hinged on the bodies and including openings larger at one part than another, other bodies having hinged extensions, and headed studs on said last named extensions, said heads adapted to pass through said openings at a larger part and to slide along said openings to a smaller part to be held by the extension.

13. A chain including bodies and extensions hinged in the bodies and including openings having one dimension in the direction and another dimension in another, other bodies having hinged extensions, studs thereon, and heads on the studs adapted to pass the openings when held at one angle and to be held against passing when held at another.

VICTOR T. SURROWS.