Sept. 9, 1969 J. T. BAKER 3,465,543

OPENABLE FINGER RING WITH PIVOTED LOCKING ELEMENT

Filed March 8, 1966

Fig. 1

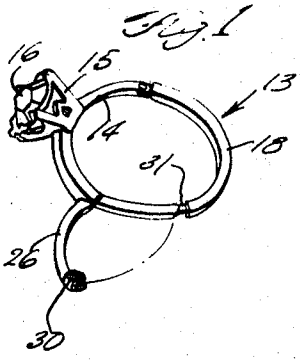


Fig. 2

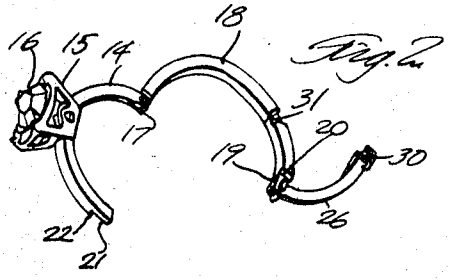


Fig. 3

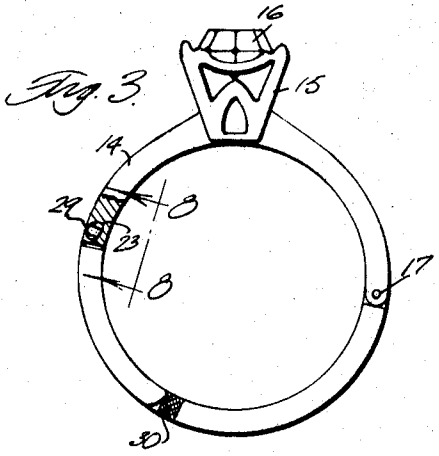


Fig. 4

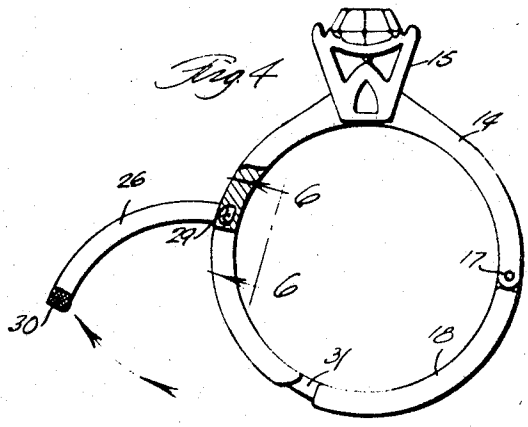


Fig. 5

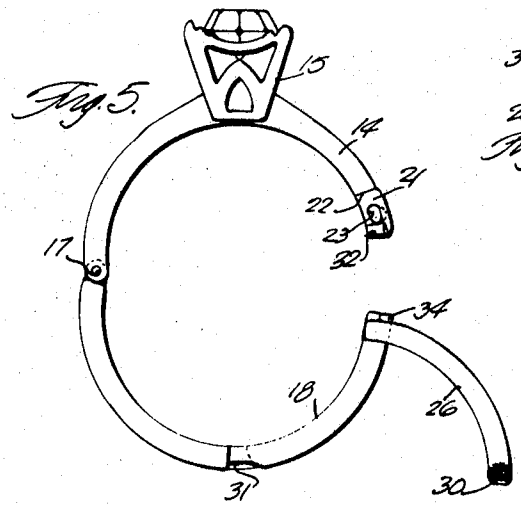


Fig. 6

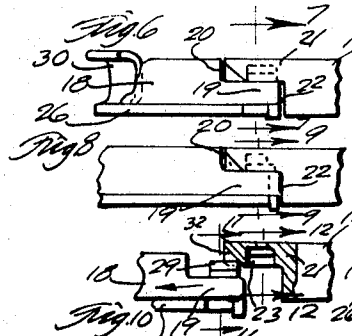


Fig. 7



Fig. 8

Fig. 9



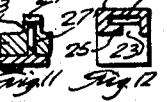


Fig. 10 Fig. 11 Fig. 12

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United States Patent Office 3,465,543 Patented Sept. 9, 1969

3,465,543

OPENABLE FINGER RING WITH PIVOTED LOCKING ELEMENT

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Filed Mar. 8, 1966, Ser. No. 532,668
Int. Cl. A44c 9/02; A44b 13/00
U.S. Cl. 63—15.5 6 Claims

ABSTRACT OF THE DISCLOSURE

A finger ring having a hinged section. An arcuate latch arm is pivoted to the end of the hinged section and the pivot has an elongated locking arm receivable in a slot in the end of the remaining part of the ring. The locking arm is rotated to locking position transverse to the slot when the latch arm is conformably received on a reduced part of the hinged section. The latch arm has a U-shaped clip element lockingly-engageable with the hinged section.

This invention relates to improvements in finger rings, and more particularly to an improved finger ring of the type having a hinged band segment with means for releasably-locking said hinged segment to the remainder of the ring.

A main object of the invention is to provide a novel and improved hinged finger ring which may be readily placed on the finger of a person and which may be readily removed therefrom without the necessity of sliding the ring over the length of the finger, the hinged ring being especially useful in the case of persons having enlarged knuckles where it is difficult to slip a ring over the knuckle portion of the finger, the hinged ring of the present invention being simple in construction, being easy to place on the finger and to remove therefrom, and being provided with secure latching means which guards against possible loss of the ring.

A further object of the invention is to provide an improved finger ring having a hinged section which may be releasably-locked to the remainder of the ring, the finger ring being inexpensive to fabricate, being durable in construction, being neat in appearance, and being easy to manipulate.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawing, wherein:

FIGURE 1 is a perspective view showing an improved finger ring constructed in accordance with the present invention with the latching arm thereof shown in release position.

FIGURE 2 is a perspective view showing the ring of FIGURE 1 with the hinged segment thereof rotated away from the main portion of the ring.

FIGURE 3 is an enlarged elevational view, partly in cross-section, showing the finger ring of FIGURES 1 and 2 in closed, locked position.

FIGURE 4 is an elevational view, similar to FIGURE 3, with a portion in cross-section, showing the locking arm thereof in released position, as in FIGURE 1.

FIGURE 5 is an elevational view, taken from the rear side of the ring as compared with FIGURES 3 and 4, showing the ring in open position.

FIGURE 6 is an enlarged fragmentary elevational view taken substantially on the line **6—6** of FIGURE 4.

FIGURE 7 is a cross-sectional view taken substantially on the line **7—7** of FIGURE 6.

FIGURE 8 is an enlarged fragmentary elevational view taken substantially on the line **8—8** of FIGURE 3.

FIGURE 9 is a cross-sectional view taken substantially on the line **9—9** of FIGURE 8.

FIGURE 10 is a fragmentary elevational view, partly in cross-section, similar to FIGURE 8, but showing the ring segments being separated.

FIGURE 11 is a cross-sectional view taken substantially on the line **11—11** of FIGURE 10.

FIGURE 12 is a cross-sectional view taken substantially on the line **12—12** of FIGURE 10.

Referring to the drawing, **13** generally designates an improved hinged finger ring constructed in accordance with the present invention. The ring **13** comprises a main arcuate segment **14** which may be provided with a suitable stone-receiving setting **15** in which a stone **16** is mounted in a conventional manner. Hingedly-connected at **17** to one end of the arcuate main ring segment **14** is an auxiliary ring segment **18** which may be, at times, swung outwardly relative to the main segment **14** to facilitate placing the ring on the wearer's finger or removing the ring from the finger, particularly in the case of a person having fingers with enlarged knuckles which makes it difficult to use a solid ring because of the problem of slipping the ring past the aforesaid enlarged knuckles.

At the end of the auxiliary segment **18** opposite the hinge connection **17**, said auxiliary ring segment is formed with a portion of reduced thickness, shown at **19**, defining a transverse shoulder **20**. The free end portion of the main ring segment **14** is likewise formed with the reduced-thickness portion **21** defining the transverse shoulder **22**. As shown in FIGURE 6, the portions **19** and **21** are interengageable to define the closed-ring configuration of FIGURE 3, with the reduced portions **21** and **19** overlapped and with their ends closely adjacent to and almost in abutment with the respective shoulders **20** and **22**.

As shown in FIGURE 12, the lug element **21** is formed with an inwardly-facing locking recess **23** having the laterally-enlarged top portion **24** defining a retaining shoulder **25** adjacent to the relatively reduced entry portion **23** of the recess. Designated at **26** is an arcuate latch arm of the same curvature as the auxiliary ring segment **18** which is pivotally connected at one end to the free end portion of the auxiliary ring segment **18** by an integral hinge pin means **27** which extends rotatably through the end of the segment **18** and which is formed with the integral locking arm element **29** projecting laterally from the end of the pin means, as shown in FIGURE 9, the arm element **29** being engageable through the recess portion **23** when the latch member **26** is in an outwardly-rotated position, as shown in FIGURE 4, but which is not registrable with the entry recess portion **23** in any other position of member **26**. It will be understood that the recess entry portion **23** is, therefore, of somewhat elongated shape longitudinally and is shaped generally similar to the arm **29** so that said arm is slidably-engageable through the recess portion **23** when in registry therewith. After the arm **29** has been engaged through the slot **23**, the arm **29** will be rotated so that it engages in the laterally-extending recess portion **24**, interlocking therewith and overlying the retaining shoulder **25**, which locks the hinged segment **18** to the main ring segment **14**. The interlocked condition of the segments is illustrated in FIGURES 3, 8 and 9, wherein it will be seen that the arm **29** is in a position rotated transverse to the direction of the entry slot **23** so that the arm **29** overlies the retaining shoulder **25**.

The hinged ring segment **18** is reduced in thickness over a length of the latch arm **26** and by the amount corresponding to the thickness of the latch arm, so that the latch arm may be, at times, received on the reduced-thickness portion of segment **18** in substantially flush relationship therewith, the total thickness of the overlapping portions of arm **26** and segment **18** being substantially the same as the normal thickness of the segment **18**. The arm **26**

is provided at its free end with a knurled clip loop **30** which is generally U-shaped and which is engagable over a reduced neck portion **31** provided on the hinged ring segment **18** adjacent to its normal-thickness portion, the clip **30** being substantially the same in thickness as the unreduced portion of segment **18** so that when the segment **18** is locked in closed position with respect to the main ring segment **14** and the arm **26** is swung to its overlapping position on segment **18**, the clip **30** will be received in substantially flush relationship with the remainder of the ring, as shown in FIGURE 3.

The lug member **21** at the end of main ring segment **14** is formed with a beveled camming surface **32** engageable with the end corner portion of arm **29**, as shown in FIGURE 10, the beveled surface **32** being part of an end recess provided in the end of main ring segment **14**, as shown in FIGURE 5, to facilitate guiding the arm **29** into the locking recess entry portion **23**, as will be apparent from FIGURE 10.

Lug **19** is provided with a collar portion **33** surrounding the pin **27** and being supportingly-engaged beneath the arm **29**, as shown in FIGURE 11.

Hinged segment **18** is provided at the outer corner of the end portion thereof adjacent to the pivoted end of latch arm **26** with a stop lug **34** which limits the outward rotation of the latch arm **26** substantially to the position thereof shown in FIGURE 5, namely, to a position wherein the arm **26** is swung outwardly through an angle of approximately 90° relative to its normal position wherein it is registrably-engaged on segment **18**.

When the ring is to be worn, it is first opened to the position thereof shown in FIGURE 2, and the finger is engaged in the opened ring. The segment **18** is then swung to its closed position relative to the main ring segment **14**, namely, through the position of FIGURE 5 to the position of FIGURE 4, wherein the end of the segment **14** is cammingly-engaged over the arm **29** by the camming engagement of surface **32** therewith, after which arm **29** snaps into the slot **23**, with the latch arm **26** in the outwardly-swung position thereof shown in FIGURES 4 and 5. After the arm **29** has been received through the slot **23** and is in a position wherein the arm **29** can rotate in the generally circular enlarged recess **24**, the latch arm **26** is rotated inwardly from the position of FIGURE 4 to the position of FIGURE 3, the reduced-ring-segment portion **31** being engaged in the U-shaped clip portion **30**. The clip portion **30** is resilient and frictionally-grips the reduced neck portion **31**, holding the arm **26** in superimposed overlapping position on the reduced portion of the hinged ring segment **18**. Thus, the locking arm **29** is retained in the transverse locking position thereof shown in FIGURE 3 and in FIGURE 9. The ring is thus locked closed and can be safely worn without risk of loss.

Should the latch arm **26** become unfastened from the segment **18**, the wearer will immediately become aware thereof because of the projecting position of the latch arm **26**, which thus serves as a warning of the possible opening of the ring. The arm **26** in its outwardly-projecting position would naturally encounter the adjacent finger of the wearer, and the accompanying sensation would immediately warn the wearer of the unlatched condition of the ring.

In order to remove the ring, it is merely necessary to swing the latch arm **26** to its outwardly-projecting position wherein further outward movement of the arm **26** is prevented by the stop lug **34**, as shown in FIGURE 5. This moves the locking arm **29** into registry with the slot-shaped recess portion **23**, which thus allows the hinged section **18** to be easily flexed away from the end of the main ring section **14**, whereby to disengage the arm **29** from the recess portion **23** and to thereby allow the hinged ring section **18** to be swung outwardly to the open position thereof shown in FIGURE 2. This allows the ring to be quickly and easily removed from the wearer's finger whenever desired.

The knurled clip **30** can be readily disengaged from the neck portion **31** by grasping same and urging it outwardlly to the position thereof shown in FIGURE 1.

While a specific embodiment of an improved hinged finger ring has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art.

What is claimed as new is:

1. A finger ring of a size adapted to fit the finger of a wearer comprising an arcuate main segment, an auxiliary segement hingedly-connected at one end thereof with an end of said main segment and being adapted to form a generally circular ring therewith, said main segment being formed at its free end with a locking recess having a wall with an elongated entry portion therein, a latch arm, pin means pivotally-connecting said latch arm to the free end of the auxiliary segment, a locking element on said pin means receivable in said locking recess entry portion, and means to interlock said locking element with said recess wall responsive to the rotation of said latch arm to a position substantially aligned with and superimposed on said auxiliary segment, said pin means being rigidly-connected to said latch arm, said locking recess wall being provided with a retaining shoulder, said locking element comprising an arm on said pin means engageable over said retaining shoulder, said last-named arm being substantially the same shape as said entry portion and being substantially registrable with and slidable through said entry portion when said latch arm is in a position rotated outwardly from said auxiliary segment, and said retaining shoulder being located at one longitudinal side margin of said entry portion.

2. The finger ring of claim **1**, and a U-shaped spring clip element on the free end of said latch arm clampingly-engageable on a portion of said auxiliary segment.

3. The finger ring of claim **2**, and wherein said portion of the auxiliary segment is reduced in cross-sectional size sufficiently to receive said spring clip element.

4. The finger ring of claim **3**, and stop means on the auxiliary segment limiting outward rotation of said latch arm to the position wherein said arm on the pin means substantially registers with the entry portion of the locking recess when the pin means is aligned with said locking recess.

5. The finger ring of claim **4**, and wherein said free end of the main segment is formed with a beveled surface adjacent and leading to said entry portion of the locking recess cammingly-engageable with said arm on the pin means to facilitate engagement of said last-named arm in said entry portion.

6. The finger ring of claim **5**, and wherein said latch arm is arcuate in shape and substantially of the same curvature as said auxiliary segment, said auxiliary segment being recessed at a portion thereof to receive said latch arm with the latch arm substantially flush with the remainder of the auxiliary segment and with said U-shaped spring clip element clampingly-engaging the reduced first-named portion of the auxiliary segment.

References Cited

UNITED STATES PATENTS

1,152,340	8/1915	Obsboum	63—15.7
2,582,083	1/1952	Tarter et al.	63—15.7
2,771,753	11/1956	Sallan	63—15.7
3,042,277	7/1962	Stradella.	

FOREIGN PATENTS

584,404	1/1947	Great Britain.

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