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(54) Title: INTERCHANGEABLE JEWELRY SETTING SYSTEM

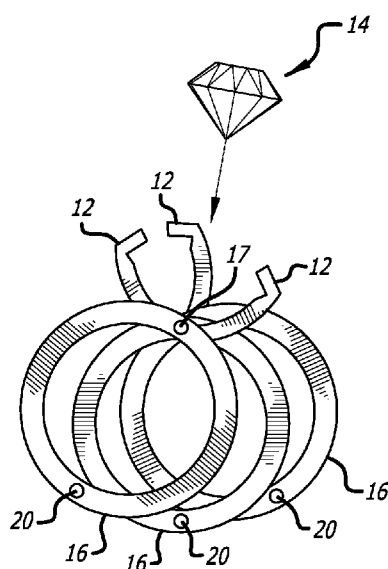


FIG. 3

(57) Abstract: An interchangeable jewelry setting system that allows for the insertion, removal and replacement of ornamental elements onto a jewelry piece is provided. The jewelry piece may comprise any type of piece of jewelry onto which an ornamental setting may be fitted such as, for example, a ring, necklace, earring, bracelet, broach, pin, etc. Likewise, any ornamental element may be disposed on the interchangeable setting of the invention, such as, for example, a metallic engraving, ornamental design element, etc.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/11281

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A44C 9/00 (2014.01) CPC - A44C 9/003, A44C 17/02 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8) - A44C 9/00 (2014.01) CPC - A44C 9/003, A44C 17/02 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched IPC(8) - A44C 9/00 (2014.01) CPC - A44C 9/003, A44C 17/02 (keyword limited; terms below) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase; Google (Patents, Web); Search terms used: change interchange setting ring arm prong jewelry alternate vary variation convert exchange swap switch		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/0011888 A1 (PATTERSON) 19 January 2012 (19.01.2012), entire document, especially Fig 2, 6, 10-12 and 13-15; para [0036], [0042], [0045]	1, 4, 6-9, 12-14
X	US 5,419,158 A (SANDBERG et al.) 30 May 1985 (30.05.1985), entire document, especially Fig 2, 9 and 10; col 5, ln 49-51; col 5, ln 67 to col 6, ln 1	1-3, 5, 9-11, 15-16
A	US 2012/0198887 A1 (BISSERIER) 09 August 2012 (09.08.2012), entire document	1-16
A	US 6,715,315 B1 (HARTGROVE) 06 April 2004 (06.04.2004), entire document	1-16
A	US 2005/0126223 A1 (MASCHIO) 16 June 2005 (16.06.2005), entire document	1-16
☐ Further documents are listed in the continuation of Box C. ☐		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 22 January 2015 (22.01.2015)		Date of mailing of the international search report 02 FEB 2015
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/11281

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
---see extra sheet---

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-16

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/11281

Continuation of:

--- Box No. III - Observations where unity of invention is lacking ---

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I: Claims 1-16 drawn to a ring having an interchangeable setting system comprising: a plurality of independent ring portions each comprising at least a passage through which a wearer's finger may be inserted, the independent ring portions being rotatably interconnected such that the passages of the independent ring portions may be rotated into and out of alignment; an anchor mechanism for securing an ornamental element to said ring comprising a plurality of armatures, wherein at least one armature is disposed on each of said independent ring portions; and wherein the plurality of armatures are configured such that where the passages of each of the plurality of independent ring portions are rotated into alignment the anchor mechanism secures the ornamental element to said ring, and where the passages of each of the plurality of independent ring portions are rotated out of alignment the anchor mechanism releases the ornamental element such that it may be removed from the ring.

Group II: Claim 17-20 drawn to a ring having an interchangeable setting system comprising: a plurality of independent ring portions each comprising at least a passage through which a wearer's finger may be inserted, the independent ring portions being rotatably interconnected such that the passages of the independent ring portions may be rotated into and out of alignment; a removable ornamental element having a interlocking portion disposed thereon; an anchor mechanism for securing the ornamental element to said ring comprising a slot configured to cooperatively engage the interlocking portion of the ornamental element, the slot having a slot opening formed in at least one of said independent ring portions and a slot closure formed in at least another of said independent ring portions; and wherein the slot and closure are configured such that where the passages of each of the plurality of independent ring portions are rotated into alignment the closure closes said slot opening securing the interlocking portion of the ornamental element within the slot, and where the passages of each of the plurality of independent ring portions are rotated out of alignment the slot opening is exposed such that the interlocking portion of the ornamental element may be removed from the slot.

Note: No claims are generic.

The invention listed as groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I requires the special technical features of an anchor mechanism for securing an ornamental element to said ring comprising a plurality of armatures, wherein at least one armature is disposed on each of said independent ring portions; and wherein the plurality of armatures are configured such that where the passages of each of the plurality of independent ring portions are rotated into alignment the anchor mechanism secures the ornamental element to said ring, and where the passages of each of the plurality of independent ring portions are rotated out of alignment the anchor mechanism releases the ornamental element such that it may be removed from the ring, not required by group II.

Group II requires the special technical features of a removable ornamental element having a interlocking portion disposed thereon; an anchor mechanism for securing the ornamental element to said ring comprising a slot configured to cooperatively engage the interlocking portion of the ornamental element, the slot having a slot opening formed in at least one of said independent ring portions and a slot closure formed in at least another of said independent ring portions; and wherein the slot and closure are configured such that where the passages of each of the plurality of independent ring portions are rotated into alignment the closure closes said slot opening securing the interlocking portion of the ornamental element within the slot, and where the passages of each of the plurality of independent ring portions are rotated out of alignment the slot opening is exposed such that the interlocking portion of the ornamental element may be removed from the slot, not required by group I.

The only features shared by groups I and II that would otherwise unify the groups, are a plurality of independent ring portions each comprising at least a passage through which a wearer's finger may be inserted, the independent ring portions being rotatably interconnected such that the passages of the independent ring portions may be rotated into and out of alignment, and an anchor mechanism for securing the ornamental element to said ring. However this technical feature does not represent a contribution over prior art, because the shared technical feature is anticipated by US 6,318,122 B1 to Burgard (hereinafter 'Burgard').

Burgard teaches an interchangeable ornament jewelry display (Title) comprising a plurality of independent ring portions each comprising at least a passage through which a wearer's finger may be inserted (first and second ring section 12 and 14, Figs. 3-8), the independent ring portions being rotatably interconnected such that the passages of the independent ring portions may be rotated into and out of alignment (see Figs. 3, 5, and 6), and an anchor mechanism for securing the ornamental element to said ring (ornament 74, Fig 1, held on by anchor mechanism in the form of spindle 18 and retainer arms 20, 22, Figs 1-8).

As the common technical features were known in the art at the time of the invention, this cannot be considered a common technical feature that would otherwise unify the groups.

Therefore, Groups I and II lack unity under PCT Rule 13.