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(71) Applicant: **KTL Jewellery Trading Ltd.**
Hunghom, Hong Kong 999077 (CN)

(72) Inventor: **YEUK, Lun Calan Kei**
Hunghom
Hong Kong 999077 (CN)

(74) Representative: **Sun, Yiming**
HUASUN Patent- und Rechtsanwälte
Friedrichstraße 33
80801 München (DE)

(54) COMPOSITE DIAMOND JEWELRY AND MANUFACTURING METHOD THEREOF

(57) The invention discloses a combinative diamond jewelry, which includes: a metal supporting base on an upper surface edge of which a plurality of metal claws, each metal claw having a carving formed on its top surface; and a plurality of small sized diamonds inlaid between the upper surface of the supporting base and metal claws. Also disclosed is a method for making the same. Said major diamond, periphery diamonds and bottom diamonds are pressed with each other and secured onto the upper surface of the supporting base, and form together with the metal claws structure identical to each cutting edge angle of the diamond. No slot is formed among the diamonds of the jewelry and therefore, dust is prevented from coming into the interior of the jewelry, thus overcoming drawbacks of prior art combinative diamond jewelry. Furthermore entire shining visual effects are obtained by mutual refraction of these small diamonds and metal part according to specific size ratio of the small diamonds to metal part and shape design.

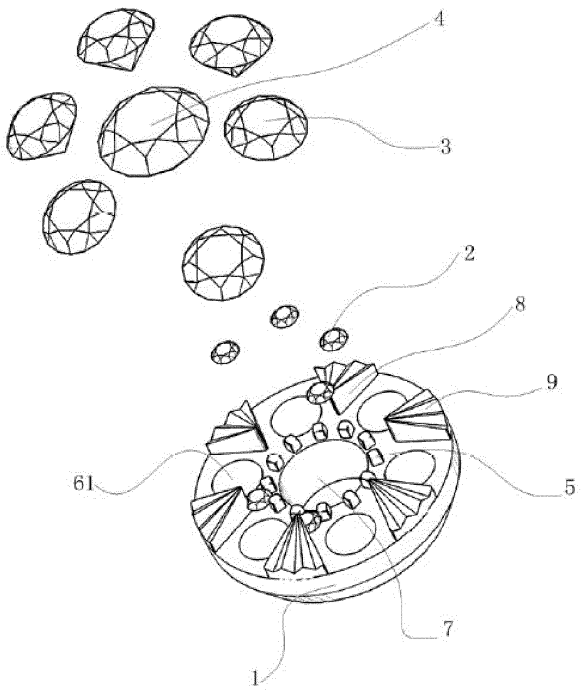


Figure 3

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to technology of making diamond jewelry and more particularly, to a combinative diamond jewelry and making method thereof.

BACKGROUD OF THE INVENTION

[0002] With rapid exhaustion of diamond resource, price of diamond of large size is becoming increasingly expensive. In field of jewelry, it is difficult for a normal consumer to buy jewelry inlaid with diamond having weight of more than 1 ct (carat). Though small-sized diamond has a low price, a general consumer likes diamond of large size.

[0003] In recent years, in order for a general consumer to get with low price jewelry having effect of large-sized diamond, technicians of diamond jewelry fabrication have developed kinds of diamond combining techniques for simulating effect of large sized diamond using some small sized diamond.

[0004] For example, Chinese Patent No.: CN200710076738.6 has disclosed modular insertion diamond jewelry. According to this disclosure, a noble metal base having a conic bottom surface is provided. A plurality of diamond bores is defined in a top surface of the base for locating diamonds. In addition, a clamping protrusion is disposed between the diamond bores formed along the periphery of the noble metal base. Said clamping protrusion is of a triangle which is wider along a radial outward direction. The diamonds placed along the periphery of the noble metal base jointly push a diamond located at the center of the base. Moreover, the periphery of the noble metal base is flush with periphery diamond. The multiple diamonds and noble metal base in their entirety look like a single diamond of large size.

[0005] In another example, Chinese Patent No.: CN201210034500.8 describes an ice flower cut diamond of "one in six" type. According to this reference, it includes nine steps of: metal reverse molding, finishing, coloring, diamond setting, edge shovel, manual knurling, polishing, plating, and quality control. The metal construction is of a small cylindrical construction. Both top and bottom layers are inclined inwardly and, their angle is designed to be consistent with the angel at which facets of the diamond is cut. Using three-layered circular drill stacking technique, the small diamonds are placed into all locations on the metal bottom layer where no metal is presented. Furthermore, manual knurling is performed on a table triangular metal claw location for increasing refraction and bringing an effect of a large sized diamond by the entire table surface.

[0006] Though above patents and prior art have realized effect of a large sized diamond using several small sized diamonds, these techniques suffer from the following problems.

At first, to hold these small diamonds in place stably so as to prevent falling of them, metal retention means is mainly used to mount a central diamond surrounded by several small diamonds. This construction however, results in existence of gaps between the central diamond and small diamonds. During wearing processing, dust and dirt will come into the gaps over time, thus making it difficult to clean the gaps and influencing using of the diamond jewelry.

Secondly, neither of the above prior art techniques is able to design size of the small diamond contained in this combinative diamond and angle of the circular base support based on cutting angle of true diamond. It is impossible to form entire shining visual effects by mutual refraction of these small diamonds according to specific size ratio of the small diamonds to metal part and shape design. As such, there is certain difference between it and true large sized diamond in terms of shape and visual effect.

SUMMARY OF THE INVENTION

[0007] The present invention proposes a combinative diamond jewelry. No slot is formed among the diamonds of the jewelry and therefore, dust is prevented from coming into the interior of the jewelry, thus overcoming drawbacks of prior art combinative diamond jewelry. Furthermore entire shining visual effects are obtained by mutual refraction of these small diamonds and metal part according to specific size ratio of the small diamonds to metal part and shape design.

[0008] To overcome above-mentioned shortcomings, there is provided a combinative diamond jewelry including: a metal supporting base on an upper surface edge of which a plurality of metal claws, each metal claw having a carving formed on its top surface; and a plurality of small sized diamonds inlaid between the upper surface of the supporting base and metal claws, wherein at least a large inlay opening and several intermediate inlay openings and small inlay openings are disposed on the upper surface of the supporting base;

said small sized diamond comprises: at least a major diamond and several bottom diamonds and periphery diamonds;

said several bottom diamonds are inlaid into small inlay openings in a slot of the upper surface of the supporting base and locate under the periphery diamonds;

said periphery diamonds are inlaid into intermediate inlay openings next to adjacent bottom diamonds and are pressed against and secured with the bottom diamonds;

said major is inlaid into the large opening and is pressed against an secured with the several periphery diamonds;

said major diamond, periphery diamonds and bottom diamonds are pressed with each other and secured onto the upper surface of the supporting base, and form together with the metal claws structure identical to each

cutting edge angle of the diamond.

[0009] Preferably, the major diamond, bottom diamonds and periphery diamonds are inlaid into the upper surface of the supporting base by any one or more of nail inlaying, forced inlaying or claw inlaying.

[0010] Preferably, the cross section of the supporting base is of a circle; a large inlay opening, intermediate inlay opening and several cylinders located concentrically around the large inlay opening are disposed on the upper surface of the supporting base; and said bottom diamonds are secured among these small cylinders by nail inlaying.

[0011] Preferably, the cross section of the supporting base is of a heart; two additional small cylinders with the height identical to that of the metal claws are disposed on the upper surface of the supporting base; and the bottom diamonds are mounted into the small inlay openings by combination of nail inlaying and forced inlaying.

[0012] Preferably, the cross section of the supporting base is of an ellipse, water drop, pyriform or octagon.

[0013] Preferably, the upper width of the supporting base is 6.5mm, while the lower width thereof is 6.1 mm; the angle between the side surface and upper surface of the supporting bases is 30°, while the angle between the side surface and bottom surface is 60°.

[0014] Preferably, the diameter of the bottom diamonds is in a range of 0.80mm-0.90mm; the diameter of the major diamond is within 2.30mm-2.40mm; and the diameter of the periphery diamonds is within 1.35mm-1.45mm.

[0015] Preferably, the inclination angle of the upper surface of the metal claws is identical to that of the diamond cutting surface inclination angle.

[0016] According to the present invention, a method for making a combinative diamond jewelry as recited in claim 1, includes the steps of:

(1) sample making; (2) reverse molding; (3) finishing; (4) polishing; (5) diamond setting; (6) welding; (7) polishing ; (8) plating, wherein:

the step (5) further comprises the steps of:

(1) inlaying the bottom diamonds into the small inlay openings to fill a bottom layer of a supporting base;

(2)inlaying the periphery diamonds into the intermediate inlay openings adjacent to the large inlay opening, and securing the periphery diamonds together with the bottom diamonds;

(3)inlaying the major diamond into the large inlay opening, and securing the major diamond together with the adjacent periphery diamonds;

(4) inlaying the rest periphery diamonds into the rest intermediate inlay openings respectively and securing and pressing the major diamond;

(5) each metal claw being craved with an angle of 90° such that the metal claw, side surface of the supporting base, major diamond and periphery diamonds form together each refraction face of the diamond;

(6)performing plating or rhodium plating to the supporting base and metal claws to further improve metal blare, thus improving blare and reflectivity;

plating of said step (8) further comprise the steps of:

① prepare plating white solution

[0017] Take 30ml rhodium solution using a measuring cup and add this solution into a rhodium plating container and evenly stir the solution; after addition of rhodium solution, ultra-sonic vibration for 30 seconds is required such that the final solution is uniform. Switch on ultra-sonic cleaning machine dedicated to rhodium solution. After vibration, switch off the machine.

② Plating

[0018]

a. Add water into the ultra-sonic cleaning groove such that water level is 1.5-2.5cm lower than the ultra-sonic cleaning machine edge after addition of plating solution into the container;

b. Switch on ultra-sonic cleaning machine such that the temperature is 45°C, and the ultra-sonic cleaning machine begins heating.

c. Plating is conducted when the temperature meter indicates the temperature within a range of 45 ± 3°C. During plating, voltage is from 3V to 5V and duration is 25-30s.

③ Cleaning

[0019] After finishing of the plating, the product is taken out of the solution. The electrode clamps are released to get the product out and then the product is washed using clean water.

[0020] The small inlay openings are small cylinders; and the bottom diamonds are inlaid between small cylinders by means of nail inlaying.

[0021] Said major diamond, periphery diamonds and bottom diamonds are pressed with each other and se-

cured onto the upper surface of the supporting base, and form together with the metal claws structure identical to each cutting edge angle of the diamond. No slot is formed among the diamonds of the jewelry and therefore, dust is prevented from coming into the interior of the jewelry, thus overcoming drawbacks of prior art combinative diamond jewelry. Furthermore entire shining visual effects are obtained by mutual refraction of these small diamonds and metal part according to specific size ratio of the small diamonds to metal part and shape design.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022]

Figure 1 shows a top plan view of a first embodiment of the invention;

Figure 2 shows a cross-sectional view of a supporting base of figure 1;

Figure 3 shows an exploded perspective view of figure 1;

Figure 4 shows a top plan view of a second embodiment of the invention;

Figure 5 shows a cross-sectional view of a supporting base of figure 4; and

Figure 6 shows an exploded perspective view of figure 4.

[0023] Here, 1 represents a supporting base, 2 represents a bottom diamond, 3 represents a periphery diamond, 4 represents a major diamond, 5 represents a small cylinder, 6 represents a small inlay opening, 61 denotes an intermediate inlay opening, 7 denotes a large inlay opening, 8 denotes a metal claw, and 9 denotes a carving.

DETAILED DESCRIPTION OF THE INVENTION

[0024] Preferred embodiments of the instant invention are described in great detail in conjunction with accompanied drawings. It should be understood that these embodiments are only for illustrating spirit of the invention but not for limiting scope of the invention. In addition, it should also be understood that after reading description of the invention, person of the art may make various changes or modifications to the current invention and, these changes or modifications should also fall within scope of the invention as defined by appended claims.

First embodiment

[0025] As shown in figures 1-3, combinative diamond jewelry of the present invention includes a noble metal supporting base 1 of circular cross section. A side surface of the supporting base 1 is machined according to side structure of large sized diamond, thus effectively enhancing shape simulation of large sized true diamond.

[0026] A large inlay opening 7 is defined in a central location of the supporting base 1. Six intermediate inlay openings 61 are evenly defined circumferentially and around the large inlay opening 7. In other words, centers of the six intermediate inlay openings 61 locate on a same circle. In addition, twelve small cylinders 5 are evenly and circumferentially distributed around the large inlay opening 7. Every two small cylinders 5 are categorized as a group and therefore there are totally six groups of small cylinders 5. A metal claw 8 with specific refraction angle is disposed between two adjacent intermediate inlay openings 61. Each metal claw 8 is craved with a preferred angle of 90°.

[0027] In this embodiment, the inlaying process of the combinative diamond jewelry includes the following steps.

[0028] Firstly, six small sized bottom diamonds 2 are inserted into a slot defined between two adjacent small cylinders 5 of six groups; next, a nail is formed on each small cylinder 5 and, the six small sized bottom diamonds 2 are secured in place by the nails. The six small sized bottom diamonds 2 overlay the remained metal region of the bottom layer of the supporting base 1.

[0029] Secondly, any two small sized periphery diamonds 3 located diagonally are imbedded into an intermediate inlay opening 61 located between two adjacent metal claws 8. In addition, each periphery diamond 3 is pressed against two adjacent bottom diamonds 2 and secured with them.

[0030] Thirdly, a small sized major diamond 4 is inlaid into the large inlay opening 7. Meanwhile, the major diamond 4 is pressed against two small sized periphery diamonds 3 diagonally located so that they are secured together tightly. As the major diamond 4 inlaid into the center of the large inlay opening 7 of the supporting base 1 is just contacted with six small sized bottom diamonds 6 located underneath the diamond 4, no space will be defined between the upper major diamond 4 and lower bottom diamonds 2, thereby preventing dust from entering into interior of the jewelry.

[0031] Fourthly, the remained four small sized periphery diamonds 3 are held in place through corresponding metal claws 8 and also tightly press the central major diamond 4, hence preventing dust from entering into interior of the combinative diamond.

[0032] Fifthly, six metal claws 8 are carved to get carving 9 with specific angle, and are inlaid with the side surface of the supporting base 1 and by cooperation with the diamonds on the supporting base 1, refraction angle by which an entire diamond is cut is obtained, thus improving appearance of the entire combinative diamond.

[0033] Sixthly, metal region of the jewelry is plated using plating or rhodium plating method so as to further improve metal blare, thus improving blare of the entire

jewelry.

Second embodiment

[0034] As shown in figures 4-6, combinative diamond jewelry of the present invention includes a noble metal supporting base 1 of heart cross section. A side surface of the supporting base 1 is machined according to side structure of large sized diamond, thus effectively enhancing shape simulation of large sized true diamond.

[0035] Twelve metal claws 8 are distributed around the supporting base 1. Among these metal claws, two metal claws 8 located on a tip portion of the heart shape are combined to form a unity, and the rest metal claws 8 are uniformly arranged such that an identical angle is defined between two adjacent claws 8. An intermediate inlay opening 61 is disposed between every two adjacent metal claws 8. At half and one fourth locations of a symmetrical line of the supporting base 1 small cylinders 5 are disposed respectively. The height of the small cylinders 5 is identical to that of the metal claws 8. Carvings are formed on the top of each cylinder 5, and the carvings are preferably divided into eight identical portions. The preferred carving angle is 90°. Around the small cylinder 5 located at half position of the symmetrical line of the supporting base 1, three large inlay openings 7 are disposed so that an equilateral triangle is defined among these openings 7. In a recessed portion of the hear shape of the supporting base 1, two small inlay openings 6 are defined symmetrically about the same small cylinder 5. At two sides of the large inlay opening 7 of the tip portion of the heart shape, two small inlay openings 6 are defined symmetrically about the same small cylinder 5. The above four small inlay openings 6 form together an equilateral trapezoid, and four openings 6 locate on four corns of the trapezoid respectively.

[0036] In this embodiment, the inlaying process of the combinative diamond jewelry includes the following steps.

At first, four small sized bottom diamonds 2 are inlaid into spaces defined among four small inlay openings 6. Among these bottom diamonds 2, two bottom diamonds 2 close to the small cylinder 5 are held in place by forming a nail on the small cylinder 5 and are secured onto the cylinder 5 by said nail. The four small sized bottom diamonds 2 overlay the remained metal region of the bottom layer of the supporting base 1.

Secondly, six small sized periphery diamonds 3 are imbedded into an intermediate inlay opening 61 located between two adjacent metal claws 8. In addition, each periphery diamond 3 is pressed against two adjacent bottom diamonds 2 and secured with them.

Thirdly, three small sized major diamonds 4 are inlaid into the large inlay opening 7. The major diamond 4, peripheral small sized periphery diamonds 3, bottom diamonds 2 and small cylinders 5 are pressed against each other such that they are secured strongly. As the major diamond 4 inlaid into the center of the large inlay opening 7 of the supporting base 1 is just contacted with two small sized bottom diamonds 6 located underneath the diamond 4, no space will be defined between the upper major diamond 4 and lower bottom diamonds 2, thereby preventing dust from entering into interior of the jewelry.

Fourthly, the remained four small sized periphery diamonds 3 are held in place through corresponding metal claws 8 and also tightly press the central major diamond 4, hence preventing dust from entering into interior of the combinative diamond.

Fifthly, twelve metal claws 8 are carved to get carving 9 with specific angle, and are inlaid with the side surface of the supporting base 1 and by cooperation with the diamonds on the supporting base 1, refraction angle by which an entire diamond is cut is obtained, thus improving appearance of the entire combinative diamond.

Sixthly, metal region of the jewelry is plated using plating or rhodium plating method so as to further improve metal blare, thus improving blare of the entire jewelry.

[0037] Alternatively, the cross section of the supporting base 1 may also take the shape of water drop, ellipse, pyriform, pentagon and so on.

[0038] In above illustrated embodiments of the invention, the following preferred parameters may be utilized.

[0039] The size of the small sized bottom diamond 2 is 0.85mm, and is within a tolerance range of $\pm$0.05mm.

[0040] The size of the small sized major diamond 4 is 2.35mm, and is within a tolerance range of $\pm$0.05mm.

[0041] The size of the small sized periphery diamond 3 is 1.4mm, and is within a tolerance range of $\pm$0.05mm.

[0042] The upper width of the supporting base 1 is 6.5mm, while the lower width thereof is 6.1 mm. The angle between the side surface and top surface of the supporting bases 1 is 30°, while the angle between the side surface and bottom surface is 60°, thus forming inclination angle identical to that of a true diamond. The height between the uppermost location of the top surface of the metal claw and bottom surface of the supporting base 1 is 3mm. The height between the lowermost location of the top surface of the claw and bottom surface of the base 1 is 2.4mm, thus also forming inclination angle identical to that of a true diamond. The carving angle of the top surface of the metal claw is 90°, hereby obtaining reflective effects of true diamond.

[0043] The making method of the combinative diamond jewelry of the invention includes the following

steps.

(1) Sample making: A metal member corresponding to style of the jewelry is made using silver supported wax product and grinding tool. Corresponding metal base is prepared based on inlay manner of the diamond, size of the diamond to be embedded into the metal base is determined, and location of the diamond mounting is specified.

(2) Reverse molding: Gold/platinum solution is poured into a mold, and after cooling the mold is disassembled, thus manufacturing directly a metal jewelry from the wax product.

(3)Finishing: Finish the metal jewelry to form semi-manufactured product with slim lines, crisp angle and integrity.

(4) Polishing: Polish the finished metal base to bring metal blare of the jewelry.

(5)Diamond setting: Put a diamond into a predefined location on the metal base; provide a metal wire over the diamond or metal block under the diamond; a seam is defined between the metal wire over the surface of the diamond and surface; and seam is also defined between the metal base and diamond surface and between the diamond and groove of the metal base.

(6)Welding: Weld the metal wire over the diamond or metal block under the diamond with the metal base together.

(7)Polish: after welding process, polishing is performed again to the entire metal base.

(8) Plating: A plating process is performed to the diamond jewelry after setting.

[0044] The plating process includes the following steps.

① Prepare plating white solution

[0045] Take 30ml rhodium solution using a measuring cup and add this solution into a rhodium plating container and evenly stir the solution; after addition of rhodium solution, ultra-sonic vibration for 30 seconds is required such that the final solution is uniform. Switch on ultra-sonic cleaning machine dedicated to rhodium solution. After vibration, switch off the machine.

② Plating

[0046]

a. Add water into the ultra-sonic cleaning groove such that water level is 1.5-2.5cm lower than the ultra-sonic cleaning machine edge after addition of plating solution into the container;

b. Switch on ultra-sonic cleaning machine such that the temperature is 45°C, and the ultra-sonic cleaning machine begins heating.

c. Plating is conducted when the temperature meter indicates the temperature within a range of 45±3°C. During plating, voltage is from 3V to 5V and duration is 25-30s.

③Cleaning

[0047] After finishing of the plating, the product is taken out of the solution. The electrode clamps are released to get the product out and then the product is washed using clean water.

[0048] Finally, it is emphasized that the above description is only for preferred embodiments of the invention but not to limit the scope of the invention. Any equivalent of or modification upon the invention are within the scope of the invention.

Claims

1. A combinative diamond jewelry, comprising: a metal supporting base on an upper surface edge of which a plurality of metal claws, each metal claw having a carving formed on its top surface; and a plurality of small sized diamonds inlaid between the upper surface of the supporting base and metal claws, wherein at least a large inlay opening and several intermediate inlay openings and small inlay openings are disposed on the upper surface of the supporting base;
said small sized diamond comprises: at least a major diamond and several bottom diamonds and periphery diamonds;
said several bottom diamonds are inlaid into small inlay openings in a slot of the upper surface of the supporting base and locate under the periphery diamonds;
said periphery diamonds are inlaid into intermediate inlay openings next to adjacent bottom diamonds and are pressed against and secured with the bottom diamonds;
said major is inlaid into the large opening and is pressed against an secured with the several periphery diamonds;
said major diamond, periphery diamonds and bottom diamonds are pressed with each other and secured onto the upper surface of the supporting base, and form together with the metal claws structure identical to each cutting edge angle of the diamond.

2. The combinative diamond jewelry as recited in claim 1, wherein the major diamond, bottom diamonds and periphery diamonds are inlaid into the upper surface of the supporting base by any one or more of nail inlaying, forced inlaying or claw inlaying.

3. The combinative diamond jewelry as recited in claim 1, wherein the cross section of the supporting base is of a circle; a large inlay opening, intermediate inlay opening and several cylinders located concentrically around the large inlay opening are disposed on the upper surface of the supporting base; and said bottom diamonds are secured among these small cylinders by nail inlaying.

4. The combinative diamond jewelry as recited in claim 1, wherein the cross section of the supporting base is of a heart; two additional small cylinders with the height identical to that of the metal claws are disposed on the upper surface of the supporting base; and the bottom diamonds are mounted into the small inlay openings by combination of nail inlaying and forced inlaying.

5. The combinative diamond jewelry as recited in claim 1, wherein the cross section of the supporting base is of an ellipse, water drop, pyriform or octagon.

6. The combinative diamond jewelry as recited in claim 1, wherein the upper width of the supporting base is 6.5mm, while the lower width thereof is 6.1 mm; the angle between the side surface and upper surface of the supporting bases is 30°, while the angle between the side surface and bottom surface is 60°.

7. The combinative diamond jewelry as recited in claim 1, wherein the diameter of the bottom diamonds is in a range of 0.80mm-0.90mm; the diameter of the major diamond is within 2.30mm-2.40mm; and the diameter of the periphery diamonds is within 1.35mm-1.45mm.

8. The combinative diamond jewelry as recited in claim 1, wherein the inclination angle of the upper surface of the metal claws is identical to that of the diamond cutting surface inclination angle.

9. A method for making a combinative diamond jewelry as recited in claim 1, comprising the steps of:

(1) sample making; (2) reverse molding; (3) finishing; (4) polishing; (5) diamond setting; (6) welding; (7) polishing ; (8) plating, wherein:

the step (5) further comprises the steps of:

(1) inlaying the bottom diamonds into the small inlay openings to fill a bottom layer of a supporting base;
(2)inlaying the periphery diamonds into the intermediate inlay openings adjacent to the large inlay opening, and securing the periphery diamonds together with the bottom diamonds;
(3)inlaying the major diamond into the large inlay opening, and securing the major diamond together with the adjacent periphery diamonds;
(4) inlaying the rest periphery diamonds into the rest intermediate inlay openings respectively and securing and pressing the major diamond;
(5) each metal claw being craved with an angle of 90° such that the metal claw, side surface of the supporting base, major diamond and periphery diamonds form together each refraction face of the diamond;
(6)performing plating or rhodium plating to the supporting base and metal claws to further improve metal blare, thus improving blare and reflectivity;

plating of said step (8) further comprise the steps of:

① prepare plating white solution
take 30ml rhodium solution using a measuring cup and add this solution into a rhodium plating container and evenly stir the solution; after addition of rhodium solution, ultra-sonic vibration for 30 seconds is required such that the final solution is uniform; switch on ultra-sonic cleaning machine dedicated to rhodium solution; after vibration, switch off the machine;
② plating

a. add water into the ultra-sonic cleaning groove such that water level is 1.5-2.5cm lower than the ultra-sonic cleaning machine edge after addition of plating solution into the container;
b. switch on ultra-sonic cleaning machine such that the temperature is 45°C, and the ultra-sonic cleaning machine begins heating;
c. plating is conducted when the temperature meter indicates the temperature within a range of 45±3°C; during plating, voltage is from 3V to 5V and duration is 25-30s;

③cleaning
after finishing of the plating, the product is taken out of the solution; the electrode

clamps are released to get the product out and then the product is washed using clean water.

10. The method for making a combinative diamond jewelry as recited in claim 9, wherein the small inlay openings are small cylinders; and the bottom diamonds are inlaid between small cylinders by means of nail inlaying.

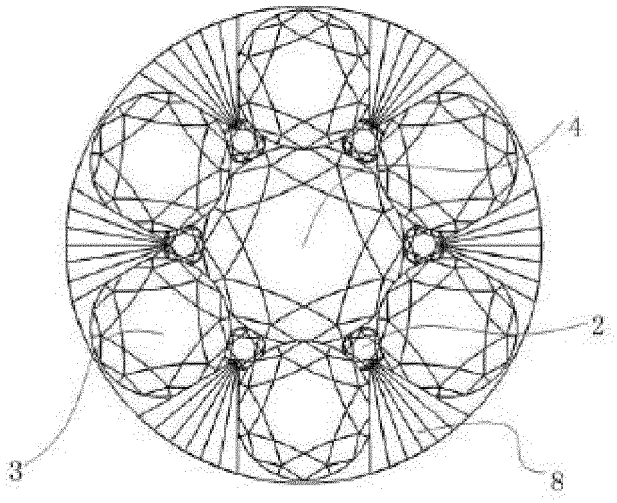


Figure 1

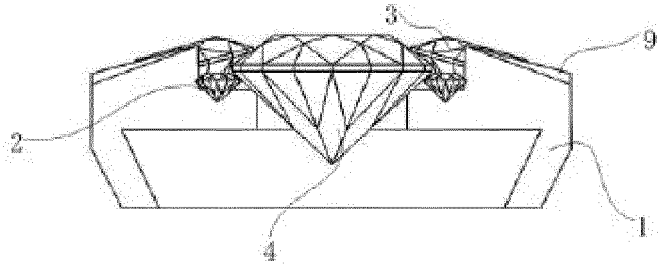


Figure 2

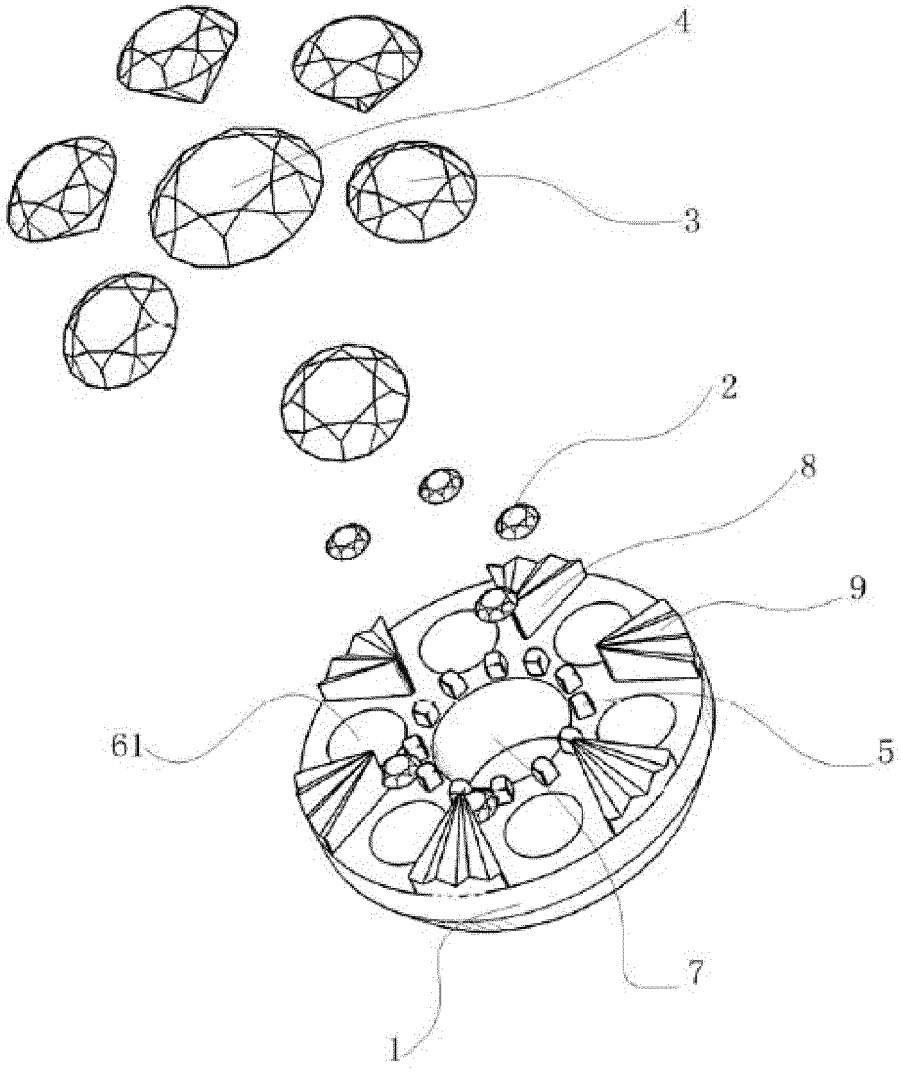
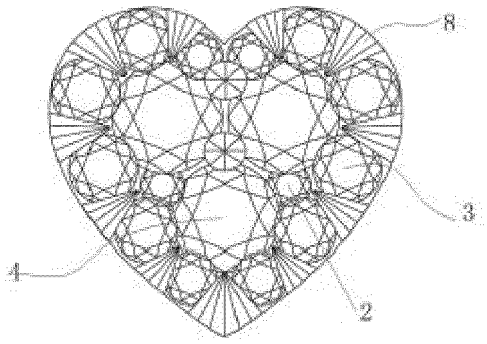


Figure 3



Figur 4

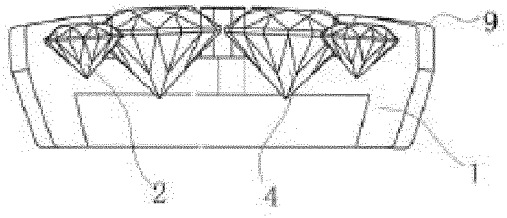


Figure 5

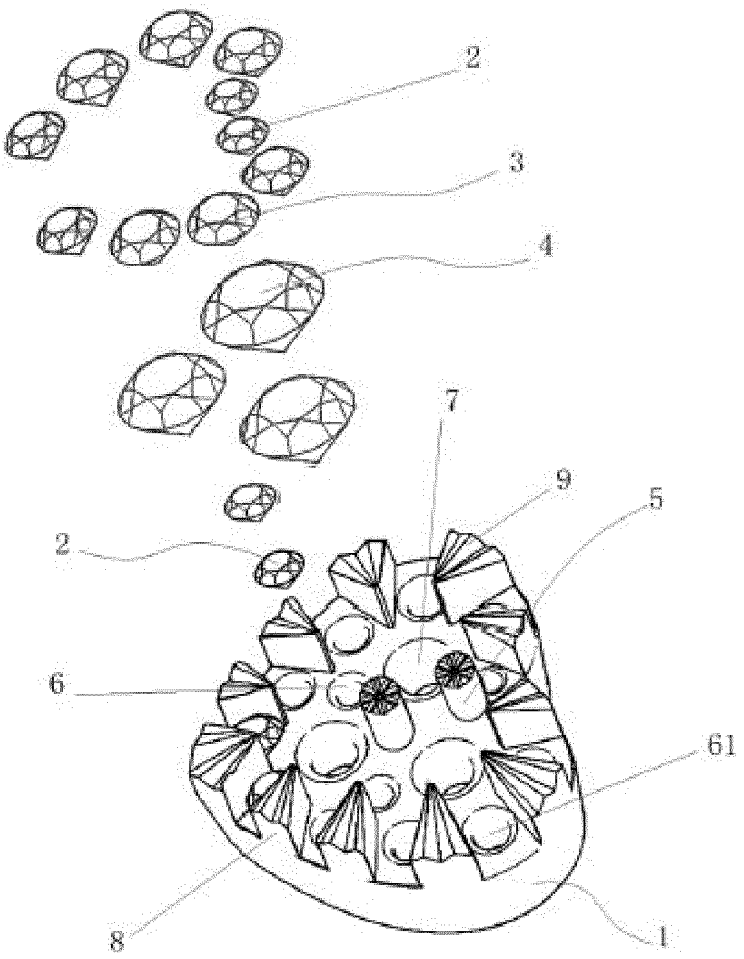


Figure 6

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CN2015/096766

A. CLASSIFICATION OF SUBJECT MATTER

A44C 17/00 (2006.01) i; A44C 27/00 (2006.01) i
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)

A44C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CPRS, VEN, HKABS, JPABS, TWABS, CNKI: facet, support, diamond?, jewelry, drill+, claw?, gap?, clean+, dirt+, refract+, braz+, glar+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	CN 104886888 A (KTL JEWELLERY TRADING LTD.), 09 September 2015 (09.09.2015), claims 1-10	1-10
PX	US 2015342310 A1 (KTL JEWELRY TRADE LTD.), 03 December 2015 (03.12.2015), claims 1-10	1-10
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☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
18 March 2016 (18.03.2016)	**01 April 2016 (01.04.2016)**
Name and mailing address of the ISA/CN: State Intellectual Property Office of the P. R. China No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088, China Facsimile No.: (86-10) 62019451	Authorized officer **WANG, Qiuyan** Telephone No.: (86-10) **62084130**

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2015/096766

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CN 201097712 Y	13 August 2008	None	
CN 102406291 A	11 April 2012	None	
CN 202095671 U	04 January 2012	None	

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REFERENCES CITED IN THE DESCRIPTION

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